

**APPENDIX E:
Hazardous Materials**

APPENDIX E-1: Phase I Environmental Site Assessment, prepared by AKRF, Inc., November 18, 2016

APPENDIX E-2: Phase II Work Plan, prepared by AKRF, Inc., January 2017

APPENDIX E-3: Subsurface (Phase II) Investigation Report, prepared by AKRF, Inc., July 2017

APPENDIX E-4: Remedial Action Plan and Construction Health and Safety Plan, prepared by AKRF, Inc., September 2017

APPENDIX E-5: AMNH Asbestos Management Plan

APPENDIX E-6: Correspondence

APPENDIX E-1:
Phase I Environmental Site Assessment



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November 18, 2016

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Re: Phase I Environmental Site Assessment
American Museum of Natural History
Portions of the American Museum of Natural History and Theodore Roosevelt Park
New York, New York
AKRF Project Number: 12166

Dear Ms. Golden:

AKRF, Inc. is pleased to submit this Phase I Environmental Site Assessment Report for the above-referenced Phase I Site. This report includes the findings of a reconnaissance of the Phase I Site, and an evaluation of readily available historical information and selected environmental databases and electronic records. AKRF, Inc. met the requirements of American Society for Testing and Materials (ASTM) as established by ASTM Standard E1527-13, unless noted otherwise in Section 8.0: "Limitations and Data Gaps".

We appreciate the opportunity to provide you with our services. If you should have any questions, please do not hesitate to contact us.

Sincerely,
AKRF, Inc.

A handwritten signature in black ink, appearing to read 'M. Godick'.

Marc S. Godick, LEP
Senior Vice President

A handwritten signature in black ink, appearing to read 'Eric Park'.

Eric Park
Technical Director

cc: E. Applebome, G. Holisko - AKRF
Enc.

EXECUTIVE SUMMARY

AKRF, Inc. (AKRF) was retained by the American Museum of Natural History (the Museum) to perform a Phase I Environmental Site Assessment of portions of the Museum comprising Sections 1, 7A, 8, 11, 11A, 11B, 15, 15A, 16, and 17, Weston Pavilion, the exterior yard and service yard, the former shooting range, and an approximately 76,000-square foot (SF) portion of Theodore Roosevelt Park, collectively referred to as the Phase I Site. The Phase I Site, along with the remainder of the Museum grounds and sections, is located at 200 Central Park West (also identified as Manhattan Tax Block 1130, part of Lot 1) and is located on New York City-owned mapped parkland under the jurisdiction of the New York City Department of Parks and Recreation (NYC Parks), as shown on Figure 1. The Phase I Site boundary is shown on Figure 2.

Uses within the Museum portions of the Phase I Site include public exhibition spaces and non-public spaces for the American Museum of Natural History. Non-public spaces include interior and exterior chemical storage spaces, aboveground storage tank (AST) rooms, outdoor underground storage tank (UST) areas, specimen storage areas, garages, offices, research spaces, libraries, educational-use spaces, and non-chemical storage areas. This Phase I Environmental Site Assessment was prepared to support the proposed construction of the Gilder Center, and related renovation and demolition, at the Museum, collectively referred to as the Project.

This Phase I Environmental Site Assessment was performed in conformance with ASTM Standard E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Practice*. Any exceptions to, or deletions from, the Standard are described in Section 8.0. The term “Recognized Environmental Condition” or REC means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a Phase I Site: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The Standard also includes definitions of Historic REC (HREC), Controlled REC (CREC), and *De Minimis* Condition. A *De Minimis* Condition is defined as an environmental concern that is not a threat to human health or the environment and would not be subject to enforcement action.

Historically, the Phase I Site was Museum-leased since approximately 1874. Historic Sanborn maps indicate that in 1902 the Phase I Site was primarily vacant with the exception of Section 1 located in the southeastern portion of the Phase I Site. Various additions were identified on Sanborn maps between 1912 and 2000, with Section 16 identified most recently on the 2007 Sanborn map. Throughout their history, the Phase I Site buildings were primarily used for exhibitions, research, maintenance, and educational purposes associated with the Museum. Sections 15 and 15A were identified as a storage structure and auto house on Sanborn maps dated 1951 through 1989. Though Sanborn maps indicate that Sections 15 and 15A were then used as a Power House and Boiler House through 1989, prior reports indicate that Sections 15 and 15A were converted to a garage in approximately 1933, and into the current Ichthyology Department space in approximately 1965. Section 17 historically housed a coal-fired electric power plant until the 1960s, when the Museum converted to alternating current.

Throughout its history, the Phase I Site was bounded to the north by West 81st Street, followed by residential areas; to the east by portions of the Museum outside of the Phase I Site boundary; to the south by West 77th Street, followed by residential and institutional uses; and to the west by Columbus Avenue, followed by multi-story residential and commercial buildings. Central Park and other portions of the Museum and Theodore Roosevelt Park were located east of the Phase I Site.

As part of the environmental review process for the proposed project, this Phase I ESA report and a Subsurface Investigation (Phase II) Work Plan would be submitted to the New York City Department of

Environmental Protection (DEP) for review and approval to evaluate any RECs identified as part of this assessment, as described below:

Recognized Environmental Conditions (RECs)

- Historic chemical storage and use at the Phase I Site that might represent RECs included:

Section 16 – One 1,080-gallon diesel fuel oil AST located within an epoxy-coated room with secondary containment berm;

Section 17 - One empty 250-gallon parts washer tank formerly containing trichloroethylene (TCE), and a 500-gallon double-wall AST day tank located on the first floor (associated with the AST located in Section 16); and

Exterior yard - Drums (up to 55 gallons) of ethanol, isopropanol, research space waste, and diesel in chemical storage sheds. Chemical storage sheds included secondary containment systems, and are regularly inspected to prevent spillage. Floor drains noted in the exterior yard and other areas throughout the Phase I Site were reported to be connected to the municipal sewer system but were in good condition with no evidence of releases or spills. Spill prevention kits were also identified in the drum storage area.

Regulatory databases identified the Museum as a small quantity generator (SQG) of hazardous waste from 2005 to 2016, and historical large quantity generator (LQG) of hazardous waste from 1984 to 2005. Chemical waste was disposed of by Clean Harbors, a permitted chemical waste hauler.

Although chemical storage areas are FDNY-permitted, with no evidence of a release noted on or concerning the Phase I Site, the locations of historical on-site use of chemicals (including chlorinated solvents) for specimen preservation and diesel fuel for Phase I Site operations and maintenance will be the subject of future Phase II subsurface investigation to evaluate whether there have been any impacts to subsurface conditions at the Phase I Site.

- The Museum is registered in the New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage (PBS) database with four ASTs and two USTs, with three ASTs and one UST located at the Phase I Site.

Although on-site storage tank controls, including secondary containment in the form of curbs or double-wall construction, interstitial alarms, high level alarms and BMS management were noted with no evidence of a release noted on or concerning the Phase I Site, the locations of historical on-site storage of fuel oil in USTs and ASTs will be the subject of future Phase II subsurface investigation to evaluate whether there have been any impacts to subsurface conditions at the Phase I Site.

- The historical uses of Section 17 (the Power House) included use as a coal-fired electric power plant and of Section 15 included use as an auto house and power house. During the reconnaissance, no evidence of coal storage or residue was observed and there is, therefore, no present information indicating that the Project is expected to be complicated by the former presence of the power house and auto house uses. These areas will be the subject of future Phase II subsurface investigation to evaluate whether there have been any impacts to subsurface conditions at the Phase I Site.

De Minimis Conditions

- Arsenic-preserved hide storage was noted in dedicated areas on the fifth floor of Section 1, and on the third floor of Section 7A. Arsenic-preservation was a common preservation technique for natural

history collections used between approximately 1930 and 1990. Preserved hides were stored in designated cabinets.

- The chemical storage area in Section 8 was noted on the fifth floor in an FDNY-permitted room with a secondary containment berm. Chemicals stored included 1 liter to 5 gallons in volume, of 1-butanol, ethyl alcohol, toluene, and other specimen preservation-related solvents, with no record of historic release.
- Chemical storage was noted in Section 11B on the lower level and fourth floors and included nitrate film negatives and acetate film roll storage.
- Chemical storage noted in Section 15 in the Ichthyology collections included approximately 300,000 small jars (up to five gallons) of specimens preserved in ethanol or isopropanol, large containers and drums (up to 55 gallons) of ethanol used for specimen preservation, and other containers (generally 15 gallons or less) of organic solvents, and solvent wastes.
- Additional chemical storage noted in Section 17 included small containers (up to one gallon) of polyester resins, spray paints, and acids in the exhibition production shop on the fifth floor.
- Additional chemical storage noted in the exterior yard included 55-gallon drums of food oil waste, and liquid nitrogen in a 3,000-gallon AST.
- A proposed 30,000-gallon UST was shown on 1962 engineering plans for Section 17 (the Power House). However, no documentation of the UST installation was found. Museum representatives do not believe the tank was installed, and the Museum was reported to have converted from coal to Consolidated Edison steam as a heating source around the time the plans were prepared; thus, it appears the proposed UST was never installed.
- One closed-in-place 1,080-gallon double-wall UST with interstitial monitoring and high-level alarm was identified in the Exterior Yard. This UST was associated with the former 50-gallon day tank AST identified in Section 1.
- The following petroleum storage tanks were located in Museum areas outside of the Phase I Site boundary: one in-service 6,000-gallon double-wall fiberglass reinforced plastic UST containing and one in-service 200-gallon double-wall AST, both containing diesel fuel and supplying an emergency generator. These tanks were located in a courtyard in the southwestern portion of the Museum, outside of the Phase I Site boundary. No odors, staining, or spills were noted in the vicinity of the AST and no related historic spills were documented.
- Based on the age of the Museum sections and prior subsurface investigations which identified historic fill in the northern portion of Theodore Roosevelt Park, historic fill materials may also be present beneath the Phase I Site.

Other Considerations (outside scope of ASTM Standard E1527-13)

The following items were identified as part of the Phase I ESA and are considered outside of the ASTM Standard E-1527-13. Provided that the Museum continues to manage these items in accordance with applicable regulatory requirements, the following are not considered significant concerns.

- Based on the age of the Museum sections, asbestos-containing materials (ACM) may be present. Suspect ACM observed during the reconnaissance included: window glazing and caulking, drywall, plaster, vinyl floor tiles and associated mastic, ceramic tile mastic, suspended ceiling tiles, ventilation duct and thermal pipe insulation, and spray-on fireproofing, generally noted to be in good condition with the exception of surfaces within the former shooting range and some stairway walls within

Section 1. Museum representatives stated that the Phase I Site buildings had been surveyed for asbestos and an asbestos management plan was in place. Various abatement activities have been conducted as part of renovations and expansions, and reassessments are conducted prior to any construction activities.

- Based on the age of the Museum sections, lead-based paint may be present in any areas which were not recently renovated. Painted surfaces were generally noted to be in good condition with the exception of surfaces within the below-grade former shooting range and some stairway walls within Section 1.
- Based on the age of the Museum sections, any window caulking, electrical equipment, hydraulic equipment, or fluorescent lighting fixtures installed prior to 1979 may contain PCBs. Any fluorescent bulbs and switches may also contain mercury. No obvious leaks or odors were observed in connection with observed equipment or lighting fixtures in viewed accessible areas.

Potential for Vapor Migration

Due to the use and storage of chemicals on the Phase I Site, a potential for subsurface vapor intrusion may exist. Following any future subsurface testing, potential vapor mitigation of existing or future buildings would be assessed.

Conclusions

Although chemical storage areas are maintained as required, the Museum employs protective measures against releases, and there has been no evidence of a release noted on or concerning the Phase I Site, the locations of historical on-site storage of chemicals and fuel oil, as well as the location of the historical use of Section 17 (the Power House) as a coal-fired electric power plant and Section 15 as an auto house and power house, will be the subject of future Phase II subsurface investigation to evaluate whether there have been any impacts to subsurface conditions at the Phase I Site.

Prior to commencing development activities involving significant subsurface disturbance, a Phase II subsurface investigation, including soil, groundwater and soil vapor sampling and an inspection of the drain in the chemical storage yard, would be conducted to assess subsurface conditions at the Phase I Site.

During any subsurface disturbance, surplus excavated soil and debris would be handled and disposed of in accordance with applicable regulatory requirements. Evidence of a spill (if any) located or found during future investigation or disturbance would be reported to NYSDEC and addressed in accordance with applicable requirements. If subsurface investigation findings indicate that potential vapor intrusion concerns exist, the potential inclusion of vapor mitigation measures, including vapor barriers and sub-slab venting systems, would be evaluated.

If the conclusions of the Phase II investigation indicate any condition that would require a Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP), then prior to the start of the proposed development work, a RAP and CHASP would be prepared and submitted to the NYCDEP for review and approval, which would summarize all environmental mitigation measures designed to protect against the potential for human or environmental exposure to known or unexpectedly encountered hazardous materials during and following construction of the proposed development. The RAP and CHASP would be implemented throughout the duration of project construction.

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1.0 INTRODUCTION

AKRF, Inc. (AKRF) was retained by the American Museum of Natural History (the Museum) to perform a Phase I Environmental Site Assessment of portions of the Museum comprising Sections 1, 7A, 8, 11, 11A, 11B, 15, 15A, 16, and 17, Weston Pavilion, the exterior yard and service yard, former shooting range, and an approximately 76,000-square foot (SF) portion of Theodore Roosevelt Park, collectively referred to as the Phase I Site. The Phase I Site, along with the remainder of the Museum grounds and sections, is located at 200 Central Park West (also identified as Manhattan Tax Block 1130, part of Lot 1) and is located on New York City-owned mapped parkland under the jurisdiction of the New York City Department of Parks and Recreation (NYC Parks), as shown on Figure 1. The Phase I Site boundary is shown on Figure 2.

Uses within the Museum portions of the Phase I Site include public exhibition spaces and non-public spaces for the American Museum of Natural History. Non-public spaces include interior and exterior chemical storage spaces, aboveground storage tank (AST) rooms, outdoor underground storage tank (UST) areas, specimen storage areas, garages, offices, research spaces, libraries, educational-use spaces, and non-chemical storage areas. This Phase I Environmental Site Assessment was prepared to support the proposed construction of the Gilder Center, and related renovation and demolition, at the Museum, collectively referred to as the Project.

The scope of services for this assessment was in conformance with ASTM Standard E1527-13 (*Standard Practice for Environmental Site Assessments: Phase I ESA Practice*). Any exceptions to, or deletions from, this practice are described in Section 8.0. The scope included the following:

- Observations of the Phase I Site (reconnaissance) to identify potential sources or indications of hazardous substances, including: aboveground storage tanks (ASTs); underground storage tanks (USTs); tank vents and fill ports; transformers and other items that could contain polychlorinated biphenyls (PCBs), drums or areas where hazardous materials were used, stored, or disposed; stained surfaces and soils; stressed vegetation, leaks, odors. In addition, neighboring properties were viewed, but only from public rights-of-way, to identify similar concerns.
- Readily available geological and groundwater (hydrogeological) information was evaluated to assist in determining the potential for contamination migration (including in soil, soil vapor, and/or groundwater) within, from, and onto the Phase I Site.
- The reconnaissance of the Phase I Site included observation of any readily visible suspect asbestos-containing materials (ACMs) and potential lead-based paint. However, no samples were collected or analyzed and this reconnaissance provides neither definitive nor exhaustive information.
- A state database of county-level radon concentrations was used to determine typical indoor radon levels and compare them to United States Environmental Protection Agency (USEPA) guidelines.
- Historical fire insurance maps for the Phase I Site and nearby sites were reviewed to evaluate historical land uses.
- The following federal regulatory databases were reviewed to determine the regulatory status of the Phase I Site and other Phase I Site within the ASTM-defined radii: National Priority List (NPL); Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS); Emergency Response Notification System (ERNS); Toxic Release Inventory System (TRIS); the Permit Compliance System of Toxic Wastewater Discharges (WWD); the Air Discharge Facilities Index (ADF) and the USEPA Civil Enforcement Docket. The federal listing of facilities which are subject to corrective action under the Resource Conservation and Recovery Act (CORRACTS) is discussed with the State databases of RCRA listings.

- The following state regulatory databases were reviewed to determine the regulatory status of the Phase I Site and other properties within predetermined radii: petroleum and hazardous material spills (SPILLS); Resource Conservation and Recovery Act Notifiers (RCRA); Chemical Bulk Storage (CBS); Solid Waste Facilities (SWF); Petroleum Bulk Storage (PBS); State Inactive Hazardous Waste Disposal Sites (SHWS); Hazardous Substance Disposal Site Draft Study; Hazardous Waste Treatment, Storage or Disposal Facilities; Major Oil Storage Facilities (MOSF); Brownfield Cleanup Program (BCP); and Historic Utility Sites.
- Local agency reviews including NYC Fire Department records (obtained as part of the database search), online Buildings and Finance Departments records, and Environmental Quality Review (CEQR) E Designation Sites were conducted for the Phase I Site only.

2.0 PHYSICAL SITE DESCRIPTION

On June 3, 2016, AKRF conducted a reconnaissance of the Phase I Site accompanied by the Museum's Senior Director of Human Resources and Environmental, Health and Safety, who answered pertinent questions. Additional inspections were conducted on July 17, 2015 with the Senior Director of Human Resources and Environmental, Health and Safety, on March 18, 2016 with a member of the Museum's Facilities Operations Department, and on October 25, 2016 with the Senior Director of Human Resources and Environmental, Health and Safety. Neighboring properties were also viewed, but only from public rights-of-way. On June 3, 2016, the weather was cloudy and approximately 80 °F, the visibility was good, and the premises were generally adequately illuminated. Photographs from the reconnaissance are included as Appendix A. The Phase I Site boundary is indicated on Figure 2.

2.1 General Site Conditions

The Phase I Site consisted of portions of Museum Sections 1, 7A, 8, 11, 11A, 11B, 15, 15A, 16, 17, Weston Pavilion, the exterior yard and additional service yard, the former shooting range, and an approximately 200,000-SF portion of Theodore Roosevelt Park. The Phase I Site primarily comprised public exhibition spaces and non-public spaces for the American Museum of Natural History. Non-public spaces included interior and exterior chemical storage spaces, research space with a former parts washer, AST rooms, outdoor UST areas, specimen storage areas, garages, offices, educational-use spaces, libraries, and non-chemical storage areas.

Museum construction comprised brick and CMU block construction, with finishing materials including stone, concrete, sheetrock, plaster, paint, 12- by 12-inch floor tiles, suspended ceiling tiles, carpeting, and exposed spray fireproofing and piping insulation. The finishing materials in the inspected areas were generally observed to be in good condition.

Building materials were in good condition with isolated areas containing peeling paint or water damage. Phase I Site buildings were illuminated by fluorescent and incandescent lights, served by electrical and hydraulic elevators, and heated by steam provided by Consolidated Edison (Con Ed). A description of the Phase I Site Sections and any areas with significant chemical storage or would otherwise be likely to impact the findings and recommendations presented within this report are discussed in further detail below.

Section 1

Section 1 comprised a five-story (plus lower level) structure primarily used as Museum exhibition and research spaces. A generator room was noted on the lower level. According to the Senior Director of Human Resources, a former 50-gallon AST day tank was located in the generator room until September 2016, when it was emptied and removed. Arsenic-preserved animal hides

were noted in a dedicated area on the fifth floor. Arsenic-preservation was a common preservation technique used between approximately 1930 and 1990. The development plan for Section 1 comprises selective demolition of the structure.

Section 7A

Section 7A comprised a three-story (plus lower level) structure used as Museum research and exhibition spaces. Arsenic-preserved animal hides were noted in a dedicated area on the third floor. The development plan for Section 7A comprises selective demolition of the structure.

Section 8

Section 8 comprised a five-story (plus lower level) structure primarily used as Museum exhibition and research spaces. A chemical storage closet, containing 1 liter to 5-gallon containers of 1-butanol, ethyl alcohol, toluene, and other specimen preservation-related solvents, and an emergency shower and eye wash station, were located in a fifth floor storage room, fitted with a secondary containment curb. According to Museum personnel, the storage room is permitted by the New York City Fire Department (FDNY), and no spills were reported within the space. The development plan for Section 8 comprises selective demolition on all floors except the fourth and fifth floors.

Former Shooting Range – North-adjacent to Section 8

The former shooting range space comprised an approximately 1,200-SF L-shaped, brick and mortar constructed space, located north-adjacent to Section 8 and extending underneath the western landscaped portion of Theodore Roosevelt Park. The former shooting range was predominantly vacant with some storage of miscellaneous unused items such as shelving and small wooden furniture.

Utilities located in the space included overhead and wall-mounted mechanical piping with paint and insulation, and overhead light fixtures, most of which appeared unused and in poor condition. Based on feedback from the Senior Director of Human Resources and Environmental, Health and Safety, the space was used as a shooting range in approximately 1940 and subsequently used as a storage space for rock specimens, some of which were identified as naturally radioactive, until the 2000s, when the contents of the space were relocated to portions of the Museum outside the Phase I Site boundary. Based upon licensing and storage procedures, residual radiation from previous specimen storage is not anticipated to be a concern.

Section 11

Section 11 comprised a five-story (plus lower level) structure primarily used as Museum exhibition spaces, and library and research spaces with no significant chemical storage areas. The development plan for Section 11 comprises selective demolition on floors two, three, and four.

Section 11A

Section 11A comprised a two-story (plus lower level) structure primarily used as office and educational spaces with some cleaning chemical storage noted on the first floor and no other significant chemical storage areas. The development plan for Section 11A comprises selective demolition on both floors.

Section 11B

Section 11B comprised a four-story (plus lower level) structure primarily used as Museum rare books library and exhibition spaces, with some nitrate film negatives and acetate film roll storage on the lower level and fourth floor, respectively. Neither of the film storage areas comprise

significant chemical storage, and no other significant chemical storage areas were present in Section 11B. The development plan for Section 11B comprises selective demolition on floors two and four.

Section 15 Ichthyology Building

Section 15 comprised a three-story (plus lower level) structure used as Ichthyology Department specimen rooms, mechanical rooms, and Department of Gems and Minerals storage in the lower level, two Ichthyology research spaces on the first floor, and Ichthyology Department offices and specimen rooms on the second and third floors. The development plan for Section 15 comprises selective demolition of the structure.

Chemical storage in the Section 15 included: approximately 300,000 small jars (up to five gallons) of specimens preserved in ethanol or isopropanol; large containers and drums (up to 55 gallons) of ethanol used for specimen preservation; and small containers (generally 15 gallons or less) of rotenone (a piscicide stored on-site designated for off-site use only), organic solvents, and solvent wastes. All containers were noted to be clearly labeled and neatly stored, with no evidence of a release and no records of releases according to Museum representatives. According to the Senior Director of Human Resources and Environmental, Health and Safety, all chemical storage areas within Section 15 are FDNY-permitted spaces, and all Section 15 chemicals will be moved to a location outside of the Phase I Site boundary prior to development.

Section 15A

Section 15A comprised a one story structure primarily used as Museum storage and mechanical spaces with no significant chemical storage areas. The development plan for Section 15A comprises selective demolition of the structure.

Section 16

Section 16 comprised a three-story structure primarily used as a parking garage and outdoor recreation space. The development plan for Section 16 includes limited alteration of the structure.

A 1,080-gallon diesel AST was noted in a dedicated room in Section 16, adjacent to the parking garage space. The AST room was finished with an epoxy coating, creating a secondary containment space around the tank. A small cleanout cover was noted in the southeastern corner of the tank room. According to the Senior Director of Human Resources and Environmental, Health and Safety, the AST is equipped with an overfill alarm connected to the Museum's Building Management System (BMS) as well as to a monitoring panel located in Section 17.

Section 17 Former Power House

Section 17 comprised a five-story (plus lower level) structure used as mechanical rooms in the lower level, science research spaces on the first floor, storage and event space and offices on the second and third floors, and an exhibition production shop and Exhibition Department offices on the fifth floor. The development plan for Section 17 comprises selective demolition of the structure.

A 500-gallon double-wall day tank associated with the 1,080-gallon AST, located in Section 16, was identified in a tank room on the first floor. According to the Senior Director of Human Resources and Environmental, Health and Safety, the 500-gallon day tank is connected to the BMS, and conveyance piping from the 1,080-gallon AST to the 500-gallon day tank comprises double-wall piping, pitched towards the 1,080-gallon tank.

Chemical storage in Section 17 included an empty 250-gallon parts washer tank formerly containing trichloroethylene (TCE), used for degreasing within a research space and parts washer room area. According to the Senior Director of Human Resources and Environmental, Health and Safety, the parts washer tank formerly containing TCE was permitted for air discharges and is located in a FDNY-permitted research space with no record of spills or releases. The tank was emptied in October 2016, and TCE was handled on-site and disposed of off-site in accordance with all local, state, and federal requirements. Additional chemical storage in Section 17 included small containers (generally five gallons or less) of formalin and organic solvents used for conservation of specimens. The exhibition production shop contained some chemical storage, including small containers (up to one gallon) of polyester resins, spray paints, and acids. All containers were noted to be clearly labeled and neatly stored, with no evidence of a release or records of releases according to Museum personnel.

According to the Senior Director of Human Resources and Environmental, Health and Safety, the parts washer was installed in 1999 and has not been used since 2008. During the inspection, the parts washer was observed to be in good condition with no indication of damage or breaches that may have resulted in leaks. Minimal oil-like staining was noted in a secondary containment area underneath the parts washer that housed washer-related motors and pumps. A floor drain was noted, reported to be connected to the combined sewer, in the center of the parts washer room, with no indications of recent releases.

Weston Pavilion

Weston Pavilion comprised a two-story structure, primarily used as Museum lobby and ticket sales space with no significant chemical storage areas. The development plan for Weston Pavilion comprises selective demolition of the structure.

Exterior Yard with Chemical Storage Yard and Additional Service Yard

An exterior yard with a fence-enclosed chemical storage yard was noted in an approximately 1,000-SF area in the center of the Phase I Site (adjacent to Sections 7A, 15, and 16). The chemical storage yard, located in the northeastern portion of the exterior yard, contained three chemical storage sheds, and an empty drum storage area with an emergency shower, eye wash station, spill kit, and fire extinguisher. The chemical storage sheds comprised modified, elevated shipping containers, which provide covered, secondary containment. Chemicals stored in the sheds included 55-gallon drums of ethanol, gasoline, isopropanol, and diesel, and 55-gallon drums and one-gallon containers of various chemicals from the Museum research spaces. According to the Senior Director of Human Resources and Environmental, Health and Safety, all three sheds are FDNY-permitted with no records of historic releases. The sheds will be relocated outside of the Phase I Site boundary prior to development work.

Two 55-gallon drums of yellow grease (used cooking oil) were noted in the exterior yard outside of the chemical storage area, elevated above the ground on a containment pallet with a protective cover.

A 3,000-gallon liquid nitrogen tank, protected by bollards, was noted on the southern end of the exterior yard. According to the Senior Director of Human Resources and Environmental, Health and Safety, the liquid nitrogen tank is FDNY-permitted with no records of historic releases. The tank will be relocated outside of the Phase I Site boundary prior to development work.

Utilities noted in the area comprised a minimum of three chemical storage yard drains, two exterior yard trench drains, three sewer-related manhole covers, additional manways in the exterior yard, and two approximately 2-foot diameter steam heating pipes extending from the

subgrade into the south-adjacent Section 15. The subgrade portions of the steam heating pipes were noted extending north-south underneath a portion of the concrete pavement, visible through a cracked area in the pavement. Yard drains were not fitted with secondary containment, but the spill kit contained drain covers and booms for deployment in the event of a release. No evidence of a release was observed in the sheds or the surrounding service yard.

A second lower-level service yard was located south-adjacent to Section 15A, and was connected to the exterior yard by a passageway. This additional service yard contained a concrete pad with an access port at the location of a closed-in-place 1,080-gallon diesel UST for an emergency generator. This UST was registered with the New York State Department of Environmental Conservation (NYSDEC) as closed in-place, which was confirmed by Museum representatives. No closure documents or further evidence regarding the UST were obtained during the preparation of this report. However, the Senior Director of Human Resources and Environmental, Health and Safety confirmed that the tank was a double-wall tank with interstitial and high-level alarm monitoring installed in 1989, and was closed in place in 2010 by filling with concrete. An associated 50-gallon day tank historically supplied by the UST was formerly located in a generator room in Section 1. The 50-gallon AST was registered with NYSDEC as being in-service, but was emptied and removed in September 2016.

Theodore Roosevelt Park

Outdoor portions of the Phase I Site included landscaped areas and stone tile-paved sidewalks, which comprised portions of the approximately 200,000-SF portion of Theodore Roosevelt Park. The Project includes an approximately 1,500 SF work area north of Section 18, as shown on Figure 2, to relocate the New York Times Capsule sculpture from its current location (south-adjacent to Section 16) to the outdoor area north-adjacent to Section 18. The proposed plan for the sculpture relocation comprises extending the terrace on the east side of the entrance pathway to Section 18 to create a level platform for sculpture. Some minimal landscaping would be involved during the relocation of the sculpture.

All paving and landscaping in the portions of Theodore Roosevelt Park within the Phase I Site boundary were observed to be in good condition, with no odors, staining, or stressed vegetation noted.

Chemical waste was disposed of by Clean Harbors, a permitted chemical waste hauler. Universal waste was stored in the northern portion of the exterior yard, and was disposed of by Action Carting, a private hauler.

2.2 Topography and Hydrogeology

The surface topography slopes slightly down to the south-southwest towards the Hudson River. Based on the U.S. Geological Survey (USGS) Central Park Quadrangle map, the Phase I Site is approximately 85 to 90 feet above the North American Vertical Datum (NAVD) of 1988, an approximation of mean sea level. Based on USGS mapping, depth to bedrock in the vicinity of the Phase I Site is anticipated to be highly variable (approximately 5 to 35 feet below grade). The Final Environmental Impact Statement (FEIS) for the Planetarium and Northside Project, prepared by AKRF in September 1996 stated that a subsurface investigation was conducted in the northern and western portions of Theodore Roosevelt Park to determine whether hazardous materials at the Museum could pose a problem for proposed construction activities.

The investigation identified no significant evidence of subsurface contamination. The investigation results identified the presence of fill material throughout the investigation area;

however, the depth of the fill layer was not specified. Similarly, fill materials may be present beneath the Phase I Site.

The 1996 FEIS also stated that groundwater was encountered between approximately 20 to 30 feet below grade; however, shallower groundwater perched on bedrock may be present. Groundwater is anticipated to flow in a southwesterly direction toward the Hudson River (approximately 3,200 feet west of the Phase I Site). Actual water table depth and groundwater flow direction can be affected by many factors including the A/B/C/D Line subway tunnels approximately 450 feet east of the Phase I Site (east-adjacent to the Phase I Site superblock beneath Central Park West), other subsurface features or obstructions such as basements or utilities, and other factors beyond the scope of this assessment. Groundwater in Manhattan is not used as a source of potable water.

2.3 Storage Tanks

2.3.1 Underground Storage Tanks (USTs)

A concrete pad associated with one 1,080-gallon diesel UST was located on-site in a service yard south-adjacent to Section 15A. According to the Senior Director of Human Resources and Environmental, Health and Safety, the tank was a double-wall tank with interstitial and high-level alarm monitoring installed in 1989, and was emptied, and closed in place by filling with concrete in 2010. The UST was registered with the NYSDEC under PBS Facility ID 2-611190. NYSDEC records indicated that the 1,080-gallon UST was installed in 1989 and closed in place in 2001. Museum staff indicated that the PBS listing will be updated to reflect the correct closure date of 2010.

A 1996 Final Environmental Impact Statement (FEIS) for Hayden Planetarium and North Side Project, summarized in Section 7.0, noted 1962 engineering plans that indicated the proposed installation of a 30,000-gallon UST in Section 15. However, no further documentation of the tank installation was found, and Museum representatives were unaware of the tank at the time of the Phase I Site inspection. The engineering plans were reported to correspond to the period when the Museum converted from coal to Con Ed steam as a heating source; thus, it is possible the proposed UST was not installed.

The portions of the Museum outside of the Phase I Site boundary were identified with one in-service 6,000-gallon diesel UST, Tank #1, used to fuel an emergency generator located in a service yard in the southwestern corner of the Museum. The fill port for this UST was located near the generator. No odors, staining, or spills were noted near the fill ports. The UST was registered with the NYSDEC under PBS Facility ID 2-611190. NYSDEC records indicated that the 6,000-gallon UST was installed in 2005. According to the Senior Director of Human Resources and Environmental, Health and Safety, the 6,000-gallon UST was double-walled fiberglass reinforced plastic construction, equipped with an overfill alarm, connected to the BMS, and has no records of related historic releases.

The Museum provided a Notice of Violation dated May 2, 2013, from the NYSDEC indicating that an inspection of the 6,000-gallon diesel UST (Tank #1) revealed evidence of product in the tank (top) sump. NYSDEC recommended that the discharge within the sump be cleaned up to its satisfaction and measures be taken to eliminate this concern in the future. In an email dated May 24, 2013, the Senior Director of Human Resources and Environmental, Health and Safety stated that the spill was cleaned up and disposed of through the Museum's private waste hauler. Piping was cleaned and repaired to prevent

future leaks, and then confirmed that there was a proper seal. NYSDEC approved the clean-up and repair measures, and subsequently closed the violation.

Other off-site USTs are discussed in Section 5.2.2.

2.3.2 Aboveground Storage Tanks (ASTs)

One in-service 1,080-gallon diesel AST, Tank #3, was noted in Section 16, adjacent to the parking garage space. A 500-gallon diesel AST, located in Section 17, was used as a day tank for the 1,080-gallon diesel AST in Section 16. The AST and day tank were used to fuel an emergency generator.

A former 50-gallon diesel AST (day tank) historically supplied by the on-site 1,080-gallon diesel UST was located on-site in a generator room in the lower level of Section 1. According to the Senior Director of Human Resources and Environmental, Health and Safety, the 50-gallon diesel AST was emptied and removed in September 2016.

An empty 250-gallon AST formerly containing TCE was also noted in Section 17, which was historically used as a parts washer.

One 3,000-gallon liquid nitrogen AST was noted in the exterior yard, protected by bollards.

Portions of the Museum located south-adjacent to the Phase I Site were identified with one additional in-service 200-gallon diesel AST in the regulatory database. According to the Senior Director of Human Resources and Environmental, Health and Safety, the 200-gallon AST is connected to the 6,000-gallon UST identified in the Museum, outside of the Phase I Site boundary. The 200-gallon AST is double-walled, with a product level gauge connected to the BMS. According to the Senior Director of Human Resources and Environmental, Health and Safety, there is no record of historic releases related to this AST. Other off-site ASTs are discussed in Section 5.2.2.

The ASTs were registered with the NYSDEC under PBS Facility ID 2-611190. NYSDEC records indicated that the on-site 1,080-gallon diesel AST was installed in 2004, the associated 500-gallon diesel AST day tank was installed in 1997, the on-site 50-gallon AST was installed in 1988, and the off-site 200-gallon diesel AST was installed in 2005. All ASTs were registered as being in service. According to the Senior Director of Human Resources and Environmental, Health and Safety, the PBS registration will be updated to list the on-site 1,080-gallon UST and associated 50-gallon AST as closed in place in 2010 and closed-removed in 2016, respectively.

As required by the applicable US Environmental protection Agency (EPA) regulatory thresholds, an Oil Spill Prevention Control and Countermeasure Plan (Oil SPCC Plan) was adopted. The goal of the Oil SPCC Plan is to implement containment measures to prevent oil spills into navigable waters. Additionally, the plan outlines inspection, testing, and preventative maintenance procedures, employee training for those involved with the use, storage, or management of oil, and spill response procedures.

2.4 Polychlorinated Biphenyls (PCBs) and Mercury

Until 1979, polychlorinated biphenyls (PCBs), which provided beneficial insulating, were used in a variety of products, in particular electrical equipment such as transformers, capacitors, fluorescent light fixtures, and voltage regulators, but also in hydraulic fluids and some other products such as caulking.

Based on the age of the Museum buildings, window caulking, electrical equipment, and/or fluorescent lighting fixtures, light bulbs and switches may contain PCBs and/or mercury. Two hydraulic elevators were located in Section 15 and may contain PCBs. No hydraulic oil storage or staining was noted in the elevator mechanical rooms or in any on-site spaces inspected during the reconnaissance.

2.5 Lead-Based Paint

After 1977, the use of lead-based paint inside commercial structures was restricted and its use elsewhere became less common, but lead-based paint may still sometimes be used outdoors. Lead-based paint can present a hazard, particularly to children, especially when it is in poor condition.

Painted surfaces were observed to be generally in good condition in the viewed accessible areas with the exception of surfaces within the former shooting range and some stairway walls within Section 1.

Activities (such as renovation or demolition) with the potential to disturb lead-based paint are subject to a variety of requirements, including US Occupational Safety and Health Administration regulation 29 CFR 1926.62 (Lead Exposure in Construction).

2.6 Utilities

Con Ed provides natural gas, steam, and electricity to the Phase I Site and surrounding area. The Phase I Site is connected to the municipal water and sewer systems.

2.7 Waste Management and Chemical Handling

Universal and commercial trash generated by the Museum was stored in approximately 30-cubic yard trash containers located in the exterior yard, pending disposal by Action Carting, a private hauler. The commercial trash storage area appeared to be in good condition. Floor drains were noted throughout the service yard, including the chemical storage shed area in the yard's northeastern corner. Though the drains were reported to be connected to the municipal sewer system, the drains were in good condition with no evidence of releases or spills. In addition, chemical storage sheds are maintained with secondary containment, and spill prevention kits were identified in the adjacent drum storage area.

Chemical storage at the Phase I site included:

Section 8 - Containers, 1 liter to 5 gallons in volume, of 1-butanol, ethyl alcohol, toluene, and other specimen preservation-related solvents;

Section 15 - Approximately 300,000 small jars (up to five gallons) of specimens preserved in ethanol or isopropanol, large containers and drums (up to 55 gallons) of ethanol used for specimen preservation, and small containers (generally 15 gallons or less) of rotenone (a piscicide stored on-site designated for off-site use only), organic solvents, and solvent wastes;

Section 16 – One 1,080-gallon diesel fuel oil AST with secondary containment;

Section 17 - One empty 250-gallon tank formerly containing TCE and small containers (up to 5 gallons) of formalin in a research space, small containers (up to one gallon) of polyester resins, spray paints, and acids in the exhibition production shop on the fifth floor, and a 500-gallon double-wall AST day tank (associated with the AST located in Section 16).

Exterior yard - Drums (up to 55 gallons) of ethanol, isopropanol, research space waste, food oil waste, and diesel in chemical storage sheds, and liquid nitrogen in a 3,000-gallon AST. Each

storage shed was equipped with a dedicated secondary containment system and a spill prevention kit was located in an adjacent area.

A Risk Management Plan (RMP) was established for the Museum, as required by NYC Local Law 92. Local Law 92 requires that facilities with certain hazardous substances or regulated toxic substances above federally determined levels prepare and submit a RMP to the NYCDEP. It was determined that the only such hazardous substance listed in the applicable NYCDEP regulations present on the Museum's property above its threshold planning quantity, was sulfuric acid, which was reported at a quantity of 22,050 pounds. According to the RMP, most sulfuric acid was contained in lead-acid batteries and generators; however, no single process or equipment contained over 1,000 pounds of sulfuric acid at a given time. The RMP outlined specific procedures in the event of a release of sulfuric acid, employee training, and the names and phone numbers of designated personnel to contact in the event of a spill.

The Museum provided an Air Facility Registration Certificate issued by the NYSDEC, which permits the Museum to operate under a minor facility registration for the use of a batch vapor TCE degreaser and a spray painting booth located in Section 17. Both sources of air emissions were not identified in 6 New York Codes, Rules, and Regulations (NYCRR) Part 201-3 as being exempt or trivial activities. This certificate was issued in February 2009 and did not have an expiration date.

2.8 Radon

Radon is a colorless, odorless gas most commonly produced by the natural radioactive decay of certain rocks. According to a New York State Department of Health database dated January 2016, the average level of radon found in Manhattan is 2.1 picocuries/liter in basements and 2.79 picocuries/liter on first floors, below the USEPA recommended action level of 4.0 picocuries/liter.

3.0 ASBESTOS-CONTAINING MATERIALS (ACM)

Asbestos refers to a group of natural minerals that provide good fire resistance and insulation. Asbestos is also commonly found in vinyl flooring, plaster, sheetrock, joint compound, ceiling tiles, roofing materials, gaskets, mastics, caulks and other products. Materials containing more than one percent asbestos are considered asbestos-containing materials (ACM). ACM are classified as either friable (e.g., more readily release fibers, such as most spray-applied fireproofing) or non-friable (such as floor tiles).

Suspect ACM observed during the reconnaissance included: window glazing and caulking, drywall, plaster, vinyl floor tiles and associated mastic, ceramic tile mastic, suspended ceiling tiles, ventilation duct and thermal pipe insulation, and spray-on fireproofing, generally in good condition in the viewed accessible areas with the exception of surfaces within the former shooting range and some stairway walls within Section 1. ACM may be present in other locations within the Phase I Site boundary which were not accessible during the reconnaissance, such as inside walls and above ceilings. The Senior Director of Human Resources and Environmental, Health and Safety stated that the Phase I Site buildings have been surveyed for asbestos, and that asbestos was abated during previous construction activities. Additionally, an Asbestos Management Plan was in place to outline procedures for managing ACM during renovations, improvements, and general maintenance conducted at the Museum. This reconnaissance is for a Phase I assessment and as such does not constitute or substitute for an asbestos survey, which includes comprehensive inspection and material sampling with laboratory testing.

Regulatory requirements for ACM (or suspect ACM until proven not to be ACM) include maintenance requirements and, prior to any renovation or demolition, inspection/sampling by a NYC-certified asbestos investigator to determine whether the project will disturb ACM. Any such ACM (and any other ACM subsequently identified) must be removed prior to renovation or demolition.

4.0 ADJACENT LAND USE

The Phase I Site was bounded to the north by West 81st Street, followed by multi-story residential buildings; to the east by the off-site portion of the Museum; to the south by West 77th Street, followed by multi-story residential buildings and the New York Historical Society; and to the west by Columbus Avenue, followed by mixed-use buildings. The surrounding blocks were occupied primarily by commercial, residential, and institutional uses, including schools and religious facilities. Central Park was located east-adjacent to the Phase I Site superblock. The A/B/C/D Line subway tunnel was located approximately 450 feet east of the Phase I Site beneath Central Park West.

5.0 PHASE I SITE HISTORY AND RECORDS REVIEW

5.1 Prior Ownership and Usage

5.1.1 Historical Land Use maps

Historical maps and documents were reviewed for indications of uses (or other evidence) suggesting hazardous material generation, usage or disposal on or near the Phase I Site. Specifically, Sanborn Fire Insurance Maps from 1902, 1912, 1951, 1976, 1989, and 2007, included as Appendix B, were reviewed.

1902

A majority of the Phase I Site was shown as vacant land with an outline labeled “projected buildings” (presumably related to proposed Museum expansions). An unidentified building was shown in the southeastern portion of the Phase I Site, currently identified by the Museum as Section 1.

The Phase I Site block comprised off-site portions of the Museum. A lecture hall, stage, and gallery were noted in the central portion of the Museum. The remainder of the block featured outlines of proposed buildings. The surrounding area was mixed-use, and developed predominantly with unlabeled three- to five-story buildings. The New York Geographical Society, Hamilton Institute, and Hotel Beresford were noted on the north-adjacent block. Central Park was noted east-adjacent to the Phase I Site block. Schools and religious institutions were also noted west of the Phase I Site. Hotel Endicott, a synagogue, and builder’s yard were noted northwest of the Phase I Site. A railroad station was noted northwest of the Phase I Site at the intersection of Columbus Avenue and West 81st Street.

1912

Two adjoined unidentifiable buildings were noted in the central portion of the Phase I Site, currently identified by the Museum as Sections 15 and 15A. Section 7A was shown as three stories. An unidentified building (currently identified by the Museum as Section 8) was shown in the southwestern portion of the Phase I

Site. The remainder of the Phase I Site consisted of parkland and walkways associated with Manhattan Square.

The surrounding area was primarily developed with small dwellings with some mixed-use buildings along Columbus Avenue. Hotel Colonial was noted on the north-adjacent block in place of a vacant lot. Manhattan Square Hotel replaced a vacant lot previously noted on the 1902 map, on the south-adjacent block. The New York Historical Society Museum and Library was also noted on the south-adjacent block, in place of vacant lots. Blocks southwest of the Phase I Site were primarily developed with dwellings and mixed-use buildings along Columbus Avenue. Upholstering facilities, Public School No. 87, and a building labeled “drugs” (presumably a pharmacy) were noted on the southwest-adjacent block. Two garages/repair shops with gasoline tanks were noted in the greater surrounding area, over 730 feet to the northwest.

1951

A Power & Service Building, currently referred to by the Museum as Section 17, was identified in the northern portion of the Phase I Site with a construction date of 1930. Sections 15 and 15A were identified as a storage and auto house, respectively. A passageway was shown connecting the Power & Service Building (Section 17) to the storage building (Section 15). A School Service building (currently identified by the Museum as Sections 11 and 11A) was noted to the southwest with a construction date of 1926, adjoined to Section 8 and Section 1 via aboveground passageways.

Several additions were noted to the off-site portion of the Museum, including: Hayden Planetarium and Whitney Memorial to the northeast; a building labeled African House and Roosevelt Memorial to the east; and Hall of Ocean Life to the southeast. In the greater surrounding area, multi-story dwellings and apartment buildings replaced several vacant lots and small dwellings. A laundry facility was noted approximately 150 feet north of the Phase I Site, on the north-adjacent block in place of a dwelling. The New York Historical Society Museum and Library expanded farther west. The railroad station previously noted northwest of the Phase I Site on the 1902 and 1912 maps was no longer indicated.

1976

The Phase I Site appeared similar to the 1951 map.

W.M.J. O’Shea Junior High School occupied a majority of the southwest-adjacent block, in place of several dwellings noted on the 1912 and 1951 maps. Public School No. 87, previously noted on the 1912 and 1951 maps, expanded to include an auditorium, gym, and playground in place of dwellings. No further significant changes were noted from the 1951 map.

1989

The Phase I Site appeared similar to the 1976 map.

Additional multi-story residential buildings were noted west and northwest of the Phase I Site, in place of hotels and religious facilities. No further significant changes were noted from the 1976 map.

2007

A roof patio with parking area was noted east-adjacent to the Power House (Section 17) and Service Building (currently identified by the Museum as Section 16). The auto house and storage building previously noted on the 1951 through 1989 maps were relabeled as Boiler House and Power House. The Phase I Site and Phase I Site superblock were identified as Theodore Roosevelt Park.

North, east, west, and northwest-adjacent maps for 2007 were not available for review. A subway station was indicated east-adjacent to the Phase I Site block. No further significant changes were noted from the 1989 map.

To summarize, the historical Sanborn maps indicated that the Phase I Site was Museum-leased since at least 1902 and consisted primarily of open space with the exception of Section 1, located in the southeastern portion of the Phase I Site. Various additions were identified between 1912 and 2000, with Section 16 identified most recently on the 2007 Sanborn map. Based on a site plan provided by the Museum's representatives, the Phase I Site buildings were constructed between 1877 and 2000.

Based on historical Sanborn maps, the off-site adjacent Museum buildings were built as early as 1902, with various additions constructed thereafter. The surrounding area was primarily residential in the early 20th century, with a laundry facility noted approximately 150 feet north of the Phase I Site on the north-adjacent block, and two garages/auto repair shops over 730 feet northwest of the Phase I Site. Additional commercial buildings were indicated in the late 20th and early 21st centuries, primarily along Columbus Avenue. Institutional uses, such as schools, religious facilities, and museums were also noted in the surrounding area.

5.1.2 Historical Aerial Photographs

Since historical fire insurance maps were available for the Phase I Site (and surrounding area) and these maps included information relating to land use, aerial photographs would, most likely, not provide additional useful information relevant to the potential for recognized environmental conditions or other environmental concerns. As such, aerial photographs were not reviewed.

5.1.3 Phase I Site Tax Files and Zoning Records

Based on information provided by Toxics Targeting, Inc. of Ithaca, New York, the Phase I Site is zoned as Parkland, and is listed with seven buildings classified as P7 (museums) built in 1998. However, historical Sanborn maps (Section 5.1.1) and documents provided by the Museum, indicated that the Museum was constructed starting in 1877.

5.1.4 Recorded Land Title Records

Land title records were searched using the ACRIS database, and are summarized in Section 5.2.3.

5.1.5 Local Street Directories

A City Directory prepared by Environmental Data Resources, Inc. was reviewed as part of this Phase I ESA. The City Directory consisted of the names of businesses located on-site and in adjacent Phase I Site, compiled from city and reverse telephone directories at approximately five-year intervals starting in 1920.

The following historical uses were identified for the Phase I Site: residences from 1950 to 2013; Altoy Corporation and Urban Vertical Parking, Inc. in 1983; Astro Waterproofing and Restoration Corporation in 1998; Active Automotive Customizing from 2006-2008; and Yitz Auto Repair, Rabbit Hill, Inc., and the American Museum of Natural History in 2013. Based on historical documents, the Phase I Site has been occupied by the Museum throughout its history and the non-Museum listings are likely to be erroneously attributed to the Phase I Site address.

No substantive off-site listings were noted in the City Directory search report.

5.2 Regulatory Review

The regulatory database listings, shown in Appendix C, were obtained from Toxics Targeting, Inc. of Ithaca, New York. It includes summaries of the databases searched, their radii around the Phase I Site and limitations of the data. The databases searched and associated radii were consistent with ASTM E1527-13.

5.2.1 Federal

Databases searched included the National Priority List (NPL); Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS); Emergency Response Notification System (ERNS); Toxic Chemical Release Inventory System (TRIS); the Permit Compliance System of Toxic Wastewater Discharges (WWD); the Air Discharge Facilities Index (ADF); and the USEPA Civil Enforcement Docket. Facilities subject to corrective action under the Resource Conservation and Recovery Act (CORRACTS) are discussed with State RCRA listings.

National Priority List (NPL)

The NPL is the USEPA's list of sites that probably require remedial action under the Superfund Program. Nearby NPL sites can sometimes pose a risk of stigmatizing surrounding Phase I Site and thus impacting property values.

One NPL site was identified within a one-mile radius of the Phase I Site. The Hudson River PCB Sediments site, located approximately 3,200 feet west of the Phase I Site, is listed due to PCB-contaminated sediment. Based on its location relative to the Phase I Site and the presumed hydraulic gradient, this site is not likely to have impacted subsurface conditions at the Phase I Site.

Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)

CERCLIS is a compilation of sites which the USEPA has investigated, or plans to investigate, pursuant to the Superfund Act of 1980 (CERCLA). As such, some of these sites may ultimately present concerns and others may not (but could still pose a perceived concern).

One CERCLIS site was identified within a ½-mile radius of the Phase I Site. The Hudson River PCB Sediments site, located approximately 3,200 feet west of the Phase I Site, is listed due to PCB-contaminated sediment. Based on its location relative to the Phase I Site and the presumed hydraulic gradient, this site is not likely to have impacted subsurface conditions at the Phase I Site.

Emergency Response Notification System (ERNS)

This federal database, compiled by the Emergency Response Notification System, records and stores information on certain reported releases of petroleum and other potentially hazardous substances.

The Phase I Site is not listed as an ERNS site.

Toxic Chemical Release Inventory System (TRIS)

The TRIS contains information reported by a variety of industries on their annual estimated releases of certain chemicals.

No TRIS sites were identified within a 1/8-mile radius of the Phase I Site.

Permit Compliance System of Toxic Wastewater Discharge (WWD)

This database includes certain sites which discharge wastewater containing potentially hazardous chemicals.

No WWD facilities were reported within a 1/8-mile radius of the Phase I Site.

United States Environmental Protection Agency Civil Enforcement Docket

This database tracks civil judiciary cases filed on behalf of the USEPA by the Department of Justice.

No facilities were listed in the USEPA's Civil Enforcement Docket within a 1/8-mile radius of the Phase I Site.

Air Discharge Facilities Index (ADF)

This federal database includes information on certain air emission sources.

One Air Discharge Facility was identified within a 1/8-mile radius of the Phase I Site. The Beresford Apartments located at 211 Central Park West, approximately 590 feet northeast of the Phase I Site, was listed for potential discharges of nitrogen dioxide, and was reported to be in regulatory compliance.

Based on the nature of the listing, this facility is not likely to have affected subsurface conditions beneath the Phase I Site.

5.2.2 State

State databases included the listings of petroleum/hazardous material spills (SPILLS); Resource Conservation and Recovery Act Notifiers (RCRA); Chemical Bulk Storage (CBS); Solid Waste Facilities (SWF); Petroleum Bulk Storage (PBS); State Inactive Hazardous Waste Disposal Sites (SHWS); Major Oil Storage Facilities (MOSF); Brownfield Cleanup Program (BCP) Sites; and Historic Utility Sites.

New York SPILLS Database

This database includes releases reported to the NYSDEC, including tank test failures (for USTs only) and tank failures.

No spills were listed for the Phase I Site. Five hundred ninety (590) spills were reported within a 1/2-mile radius of the Phase I Site, including nine active-status spills and 581 closed-status spills. The nearest spill listings with some potential to affect the Phase I Site are summarized below:

- Spill No. 9512346 was reported in January 1996 at the New York Police Department (NYPD) 20th Precinct located at 120 West 82nd Street, approximately 300 feet northwest of the Phase I Site. According to the listing, contaminated soil was found during on-site excavation and product was encountered on water during a tank removal. The site was being remediated under a New York City Department of Design and Construction (NYCDDC) Consent Order. The spill listing indicated that a methyl tert-butyl ether (MTBE) plume was detected in groundwater and was being treated by bioremediation. Routine groundwater sampling was conducted during remediation through 2004. Sampling events reported in 2005 indicated that MTBE concentrations decreased and were below NYSDEC criteria for two consecutive sampling events. The spill was closed in June 2005 and received a status of No Further Action (NFA).
- In May 2001, Spill No. 0101318 was reported at the intersection of Columbus Avenue and West 78th Street, approximately 50 feet southwest of the Phase I Site. The listing indicated that approximately 50 gallons of diesel had leaked from a tank truck onto the street, and that the FDNY arrived to remove the diesel from the pavement. The Department of Sanitation then sanded and swept away the remaining oil, and the spill was closed. Based on these details, it is not likely that this incident affected the Phase I Site subsurface.
- In August 1999, Spill No. 9906118 was reported at 66 West 77th Street, approximately 140 feet southwest of the Phase I Site. The listing indicated that a faulty gauge led to a fuel tank being overfilled, and oil spilled onto the sidewalk. Approximately 10 gallons of No. 2 fuel oil was released. The spill was cleaned, all contaminated material was recovered, and the listing was closed. Based on these details, it is not likely that this incident affected the Phase I Site subsurface.
- In July 2005, Spill No. 0505106 was reported at Consolidated Edison Vault No. 7264 located at the intersection of Columbus Avenue and West 79th Street, approximately 50 feet west of the Phase I Site. The listing indicated that approximately 2 gallons of dielectric fluid leaked from a transformer onto the concrete floor and into the sump pit, and that no sewer or waterway was affected. The spill was contained and cleanup was pending the energization of equipment, but the spill was closed. Based on these details, it is not likely that this incident affected the Phase I Site subsurface.
- In July 2009, Spill No. 0904587 was reported at the intersection of Columbus Avenue and West 79th Street, approximately 50 feet west of the Phase I Site. The listing indicated that 10 gallons of antifreeze was spilled onto the road, cleaned by the Department of Sanitation, and the spill was closed. Based on these details, it is not likely that this incident affected the Phase I Site subsurface.

Based on the listing details, distance and/or anticipated groundwater flow direction, none of the reported spill listings are likely to have significantly affected subsurface conditions at the Phase I Site. Details from all listed spills are included in Appendix C.

Resource Conservation and Recovery Act (RCRA) Notifiers Listings

This database lists sites which have filed notification forms regarding hazardous waste activity, including: treatment, storage and disposal facilities (TSDs); small-quantity (SQG) and large-quantity generators (LQG); and transporters regulated under RCRA. The discussion below includes any CORRACTS listings of facilities which are subject to corrective action under RCRA.

No TSD facilities were identified within a ½-mile radius of the Phase I Site. No CORRACTS facilities were identified within a one-mile radius of the Phase I Site.

The Phase I Site was listed as a RCRA generator. One-hundred thirty (130) RCRA generators/transporters were reported within a ⅛-mile radius of the Phase I Site.

- The Museum was identified as a small quantity generator (SQG) of hazardous waste from 2005 to 2016, and historical large quantity generator (LQG) of hazardous waste from 1984 to 2005 for various waste related to Museum operations (EPA ID NYD061202768). The Museum was also identified as an unspecified generator of ignitable solid waste in 1984 under EPA ID NYP000782847. One general-generators violation was reported in 1997 with a compliance date of 1998.

Facilities with some potential to affect subsurface conditions beneath the Phase I Site, based on proximity and/or the nature of the listings, are as follows:

- Adlers Cleaners, which is located at 445 Columbus Avenue, approximately 130 feet north-northeast of the Phase I Site, was identified as a generator of spent halogenated solvents in 1986 and 1998.
- Jefan Cleaning Service, located at 445 Columbus Avenue, approximately 130 feet north-northeast of the Phase I Site, was identified as a generator of spent halogenated solvents in 1986.
- The Consolidated Edison Service Box No. 14410 at the intersection of West 81st Street and Columbus Avenue, approximately 75 feet north-northeast of the Phase I Site, was identified as a generator of lead waste in 2013.
- A Consolidated Edison site at the intersection of West 80th Street and Columbus Avenue, approximately 50 feet north of the Phase I Site, was identified as a Conditionally Exempt Small Quantity Generator (CESQG) of lead in 2009. A Consolidated Edison vault was also identified at the intersection of West 80th Street and Columbus Avenue as a generator of lead in 2015.
- The Consolidated Edison Service Box No. 51927 at the intersection of West 79th Street and Columbus Avenue, approximately 50 feet west of the Phase I Site, was identified as a generator of lead waste in 2013 and 2014.
- The Consolidated Edison Manhole No. 51925 at the intersection of West 79th Street and Columbus Avenue, approximately 50 feet west of the Phase I Site, was identified as a generator of lead waste in 2013 and 2014.

Based on distance, anticipated groundwater flow direction, and/or nature of the listing, the remaining listings are not likely to affect subsurface conditions beneath the Phase I Site.

Chemical Bulk Storage (CBS) Database

The New York CBS is a list of facilities that store regulated non-petroleum substances in aboveground tanks with capacities greater than 185 gallons and/or in underground tanks of any size.

No CBS facilities are listed within a ⅛-mile radius of the Phase I Site.

Solid Waste Facilities (SWF)

This database includes certain landfills, incinerators, transfer stations, recycling centers, and other sites which manage solid waste.

No SWF facilities were located within ½ mile of the Phase I Site.

Petroleum Bulk Storage (PBS) Database

This database lists facilities that registered having either aboveground or underground petroleum tanks with total storage exceeding 1,100 gallons. Facilities with more than 400,000 gallons appear on the Major Oil Storage Facilities (MOSF) database (see below).

The Phase I Site was listed in the PBS database under Facility ID 2-611190. Seventy-one PBS and FDNY facilities were identified within a ¼-mile radius of the Phase I Site, including one facility located in an off-site portion of the Museum. Details of the nearest facilities are listed in Table 1.

Table 1
Area Petroleum Bulk Storage Facility Data

| Location | Capacity (gallons) | Product Stored | Status | Distance/Direction from Phase I Site |
|---|---|----------------|--|--------------------------------------|
| American Museum of Natural History 179 Central Park West (per FDNY listing) 200 Central Park West | 1,080 UST 1,080 AST 500 AST (day tank) 50 AST(dry) | Diesel | Closed-In Place (1,080-gallon UST) In Service In Service In Service | At Phase I Site |
| American Museum of Natural History 179 Central Park West (per FDNY listing) 200 Central Park West | 6,000 UST 200 AST | Diesel | In Service | Outside of Phase I Site boundary |
| The Orleans 100 West 80 th Street | 4,800 AST | No. 2 Fuel Oil | In Service | 130 feet north-northwest |
| Parc 77 50-52 West 77 th Street | 10,000 AST | No. 6 Fuel Oil | In Service | 130 feet south-southwest |
| 64-66 West 77 th Street 66 West 77 th Street | 4,000 AST | No. 2 Fuel Oil | In Service | 140 feet southwest |
| 101 West 80 th Street Owners Corporation 101 West 80 th Street | 3,000 AST | No. 4 Fuel Oil | In Service | 145 feet north-northwest |
| Joben Realty Association 101 West 78 th Street | 5,000 AST | No. 4 Fuel Oil | In Service | 150 feet west-southwest |
| 102 West Associates 102 West 79 th Street | 2,000 UST | No. 2 Fuel Oil | Closed-In Place | 150 feet west |
| 370 Columbus Realty LLC 370 Columbus Avenue | 3,000 AST | No. 6 Fuel Oil | In Service | 150 feet west-southwest |
| The Park Belvedere Condominium 101 West 79 th Street | 20,000 UST | No. 6 Fuel Oil | In Service | 160 feet northwest |

Table 1
Area Petroleum Bulk Storage Facility Data

| Location | Capacity (gallons) | Product Stored | Status | Distance/Direction from Phase I Site |
|---|--------------------|----------------|------------|--------------------------------------|
| The Excelsior Hotel 45 West 81 st Street | 6,000 UST | No. 6 Fuel Oil | In Service | 160 feet northeast |
| 51 West 81 st Corporation 51 West 81 st Street | 5,000 AST | No. 2 Fuel Oil | In Service | 165 feet north-northeast |
| Park 44 Corporation 44 West 77 th Street | 7,500 UST | No. 6 Fuel Oil | In Service | 170 feet south-southwest |
| The Museum 77 Condominium 105 West 77 th Street | 1,500 AST | No. 2 Fuel Oil | In Service | 185 feet southwest |

Notes: AST - aboveground storage tank
UST - underground storage tank

The State SPILLS database reported closed-status spills at 66 West 77th Street, 101 West 78th Street, and 45 West 81st Street. However, based on the information provided, anticipated groundwater flow, and their distance, these spills are not likely to have affected the Phase I Site subsurface. Details of all PBS facilities located within 1/8-mile of the Phase I Site are included in Appendix C.

State Inactive Hazardous Waste Disposal Site Registry (SHWS)

This program (also known as State Superfund) lists information regarding a variety of sites likely requiring cleanup.

No inactive hazardous waste disposal sites were located within a 1-mile radius of the Phase I Site.

State Hazardous Substance Waste Disposal Site Study (SHSWDS)

This database tracks certain sites that were not listed on SHWS, but may still require investigation and/or cleanup.

No SHSWDSs were identified within a 1/2-mile radius of the Phase I Site.

Major Oil Storage Facilities (MOSF) Database

These facilities have petroleum storage of 400,000 gallons or more.

No Major Oil Storage Facilities were reported within a 1/8-mile radius of the Phase I Site.

Environmental Restoration Program

These sites (which are generally municipally-owned) are receiving New York State funding for site investigation and remediation. Some sites in this program have known contamination, whereas others have not had sufficient investigation to determine whether contamination is present.

No ERP sites were identified within a 1/2-mile radius of the Phase I Site.

Voluntary Cleanup Program

The Voluntary Cleanup Program is a NYSDEC program for investigation and remediation of (generally) privately-owned sites. Some sites in this program have known

contamination, whereas others have not had sufficient investigation to determine whether contamination is present.

No VCP sites were identified within a ½-mile radius of the Phase I Site.

Brownfield Cleanup Program

This NYSDEC program is the successor to the Voluntary Cleanup Program. Again, some sites have known contamination, whereas others have not had sufficient investigation to determine whether contamination is present.

One BCP site was identified within a ½-mile radius of the Phase I Site. The facility, identified as 267-273 West 87th Street is located approximately 2,400 feet north of the Phase I Site and was a former cab company. Contamination at the site included elevated levels of petroleum- and chlorinated-related volatile organic compounds (VOCs) and heavy metals in soil and groundwater. Soil vapor samples indicated elevated levels of VOCs, including TCE and tetrachloroethylene (PCE). Based on its location relative to the Phase I Site and the presumed hydraulic gradient, this site is not likely to have impacted subsurface conditions at the Phase I Site.

Historic Utility Sites

This is an inventory of certain power generating stations, manufactured gas plants, gas storage facilities, maintenance yards and other gas and electric utility sites identified in various historic documents, maps and annual reports from 1898 to 1950.

No historical utility sites were reported within a ⅛-mile of the Phase I Site.

5.2.3 Local Agency File Review

Records available online from the New York City Fire, Buildings and Finance Departments were viewed for the Phase I Site. The Fire Department records were obtained by Toxics Targeting, Inc. as part of the regulatory database search. Since the records typically address a multitude of issues, the review focused on items likely to relate to the potential presence of hazardous materials, e.g., petroleum tank installation applications and permits, and records indicating prior uses. Copies of pertinent information are included in Appendices C (Fire Department Records) and D (Buildings and Finance Department Records).

Fire Department

The computerized FDNY Tanks database was searched regarding past or current motor vehicle fuel and heating oil tank listings within a ⅛-mile radius of the Phase I Site.

Ten listings were identified in computerized FDNY tank records within a ⅛-mile radius of the Phase I Site. One listing with no tank data was identified for the Phase I Site. This listing and off-site listings are discussed with PBS listings in Section 5.2.2.

Buildings Department

Buildings Department records were generally consistent with the historical information detailed in the Sanborn maps, reviewed in Section 5.1.1. Computerized records indicated that numerous Certificates of Occupancy for the Phase I Site and off-site Museum buildings, dating from 1925 to 2009, reported that the buildings were used as a museum, and contained offices, mechanical rooms, laboratories, parking garages, storage areas, retail, and exhibit areas.

Department of City Planning

A search of NYC Environmental Quality Review Requirements (CEQR) data by Toxics Targeting, Inc. indicated that neither the Phase I Site nor any sites within a 1/8-mile radius of the Phase I Site were assigned (E) designations.

Land Title Records and Tax Records

Electronic Phase I Site transaction records for the Phase I Site Block and Lot were reviewed from the New York City Department of Finance Office of the City Register Automated City Register Information System (ACRIS). No deed information was identified in the ACRIS files for the Phase I Site.

5.2.3.1. Additional Environmental Record Sources

To enhance the search, ASTM requires that additional local records be reviewed (i.e., beyond those included as part of the standard database search or checked online) when, in judgment of the environmental professional, such records for the Phase I Site or any adjoining Phase I Site would be reasonably ascertainable; and useful, accurate and complete in light of the objective of the records review. These records may include:

- Local Brownfields Lists
- Local Lists of Landfill/solid waste disposal sites
- Local Lists of Hazardous Waste/Contaminated Sites
- Local Lists of Registered Tanks
- Local Land Records (for activity use limitations)
- Records of emergency release reports
- Records of contaminated public wells

Sources for these records include:

- Department of Health/Environmental Division
- Fire Department
- Building Permit/Inspection Department
- Local/Regional Pollution Control Agency
- Local/Regional Water Quality Agency
- Local Electric Utility (for PCB records)

A Freedom of Information Law (FOIL) request for information pertaining to the Phase I Site was submitted to the NYCDEP via the online request form dated August 5, 2016. As of the date of this Phase I ESA, a response has not been received from NYCDEP. If issues of potential concern are noted upon receipt of the information, an addendum to this report will be created to discuss relevant findings.

A FOIL request for information pertaining to the Phase I Site was submitted to NYSDEC via the online request form dated August 5, 2016. In a response dated August 30, 2016, NYSDEC provided the following documents pertaining to the Museum: a PBS Facility Information Report and PBS applications identifying one 6,000-gallon in-service diesel UST, one 1,080-gallon in-service diesel AST, one 500-gallon in-service diesel AST, one 200-gallon diesel AST, one 50-gallon in-service diesel AST, and one 1,080-gallon

closed-in-place diesel UST; a 2009 PBS application for one in-service 6,000-gallon diesel UST; a May 2013 Notice of Violation from NYSDEC indicating that an inspection of the 6,000-gallon diesel UST revealed evidence of product in the tank top sump; and a subsequent NYSDEC PBS inspection form dated May 5, 2016 which did not identify any facility or tank violations, indicating that all previous issues had been resolved.

A FOIL request for information pertaining to the Phase I Site was submitted to the New York City Department of Health (NYCDOH) via the FOIL request form dated August 5, 2016. As of the date of this Phase I ESA, a response has not been received from NYCDOH. If issues of potential concern are noted upon receipt of the information, an addendum to this report will be created to discuss relevant findings.

A FOIL request for information pertaining to the Phase I Site was submitted to the New York State Department of Health (NYSDOH) in a letter dated August 5, 2016. In a letter dated September 6, 2016, NYSDOH indicated that no records pertaining to the request were located.

In AKRF's judgment, no other additional local records meeting the ASTM criteria are pertinent for the Phase I Site.

6.0 USER-PROVIDED INFORMATION

In preparing this Phase I ESA, AKRF requested that the American Museum of Natural History provide any pertinent information regarding the Phase I Site, specifically:

- Whether any *environmental liens or activity and land use limitations (AULs)* are in place or filed or recorded against the Phase I Site?
- Whether they had any specialized knowledge or experience related to the Phase I Site or nearby Phase I Site (e.g., specialized knowledge of any chemicals used on-site)?
- Whether the (anticipated) purchase price reflects that the Phase I Site is or could be contaminated?
- Whether they were aware of commonly known or reasonably ascertainable information about environmental conditions of the Phase I Site?
- Whether they were aware of any obvious indicators of contamination at the Phase I Site?
- Whether they were aware of any pending, threatened, ongoing or past litigation/enforcement action/consent order/notice of violation related to hazardous substances or petroleum products?

According to the Museum, this Phase I ESA was performed to evaluate the Phase I Site as part of environmental review associated with the Project.

The Museum's Senior Director of Human Resources and Environmental, Health and Safety and Senior Director of the Museum's Capital Projects and Construction department, reported no knowledge of any: environmental liens or activity use limitations on the Phase I Site; property value reduction due to environmental issues; any pending, threatened, ongoing or past litigation/enforcement action/consent order/notice of violation related to hazardous substances or petroleum products; or any obvious indicators of contamination on the Phase I Site. To the extent that pertinent additional information was provided, it has been summarized elsewhere in this report.

7.0 PREVIOUS STUDIES

American Museum of Natural History Planetarium and North Side Project – Final Environmental Impact Statement, Allee King Rosen & Fleming, Inc. (AKRF), September 1996

AKRF prepared a Final Environmental Impact Statement (FEIS) in 1996 to analyze the effects of the proposed Planetarium and North Side Project in conjunction with the Museum. The proposed project consisted of new facilities for exhibition, scientific research, education, and visitor services on the north side of the Museum and planetarium. The FEIS analyzed the proposed project for potential impacts it may have on the surrounding area. An assessment of hazardous materials was conducted in the Museum activities, buildings, and soil and groundwater on the Phase I Site. The FEIS indicated that the Museum's Power House (Section 15) housed a coal-fired power plant at one time, and potential contaminants could pose a hazard if they remained in the site subsurface.

Based on historical documentation and interviews with Museum staff, a coal-fired electric power plant was located in Section 15 from approximately 1931 up until the 1960s, when the Museum was converted to alternating current. During the 1996 inspection, former ash basins in the sub-basement of Section 15 were observed to be covered with ash residue in addition to a pile of ash.

A 1,000-gallon underground diesel fuel storage tank was observed at the time of the site inspection on the Museum Phase I Site, and was reported to be used to fuel the emergency generator. The FEIS noted that engineering plans from 1962 indicated the proposed installation of a 30,000-gallon UST in Section 15; however, no further documentation of the tank installation was found, and Museum representatives were unaware of the tank at the time of the inspection. The engineering plans were reported to correspond to the period when the Museum converted from coal to Con Ed steam as a heating source; thus, it is possible the proposed UST was not installed.

Chemical storage including spray paint, muriatic acid, hydrochloric acid, and lacquer thinner were noted in Section 17. Additionally, silk screening operations, a spray painting booth, and a silver soldering booth were identified in Section 17, all equipped with exhaust hoods. The exhaust hoods were reported to be registered with the NYCDEP Bureau of Air Resources. Section 15 contained the Museum Reproduction Department, and storage and office space. Chemical storage consisted of various types of resin neatly stored with no apparent leaks, in a room registered with the New York City Fire Department. Evidence of small spills was noted around diesel storage on the ground floor.

Consolidated Edison owned three vaulted transformers east-adjacent to Section 15. The FEIS identified a letter from Consolidated Edison dated October 31, 1985 which stated that all three transformers had dielectric fluid PCB content of less than 50 parts per million, and are within the Federal regulations for the use of PCBs. Several dry-type transformers were noted throughout the remainder of the Museum that did not contain PCBs.

GCI Environmental Advisory, Inc. conducted a lead-based paint and asbestos investigation of the Museum in 1995. Suspect asbestos-containing material was observed in the basement of Section 17 and in off-site adjacent Museum buildings. Plans were reported to be made to abate damaged asbestos throughout the Museum. Lead-based paint was identified on the original painted ceilings in the Section 15 building and passageway connecting Section 15 to the Section 17.

A subsurface investigation was conducted in March and April of 1996 in the northern and western portions of the Phase I Site and Museum, to determine whether any chemical storage, tanks, or past and present uses affected the proposed area of construction. Based on soil borings, similar fill material was encountered throughout the investigated area. There was no evidence of ash or any potentially hazardous materials. Groundwater was encountered between 20 and 30 feet below ground surface.

American Museum of Natural History Richard Gilder Center for Science, Education, and Innovation – Historic Preservation Background Research Report, Higgins Quasebarth & Partners (HQ), September 2016

The September 2016 Historic Preservation Background Research Report, prepared by HQ, provided additional historical information regarding the Museum and Phase I Site and considered the appropriateness of the Project with regard to the Museum’s historic Master Plan and missions statement, and to the intended future plans for the Museum.

The report identified that the Museum was first constructed between 1874 and 1877, with the addition of Sections 2 through 7 between 1890 and 1900. Sections 15 and 15A were constructed between 1903 and 1904 and used as the Power House and Boiler Room buildings. Section 17 was constructed between 1930 and 1931 and used as the Power and Service Building, replacing the Section 15 Power House. Section 15 was converted to a garage by approximately 1933, and then into the current Ichthyology Department building in approximately 1965.

8.0 LIMITATIONS AND DATA GAPS

This assessment met the requirements of the American Society for Testing and Materials (ASTM) as established by ASTM Standard E1527-13 at the time it was performed, with the following exceptions. AKRF does not believe that the following limitations and data gaps are significant or materially affect the conclusions of this report.

- Results of this investigation are valid as of the dates on which the investigations were performed.
- Sufficient information about the history of the Phase I Site and surrounding area was obtained from the available historical Sanborn maps, New York City Buildings Department records, and interviews. Although the Phase I Site area history was not conducted in five-year intervals, this data gap is not likely to alter the conclusions of this report.
- Agency File Reviews for the Phase I Site and adjacent sites consisted of: a review of standard databases and electronic records maintained by pertinent departments and agencies (summarized in Section 5.2); and FOIL requests for pertinent records submitted to the FDNY, NYCDOH, NYSDOH, and NYSDEC. AKRF believes this file review was sufficient in determining the potential for recognized environmental conditions or other environmental concerns at the Phase I Site and additional reviews beyond this are not warranted and would not materially change the conclusions of this report.
- Interviews and user provided information are provided in Sections 2.0 and 6.0. To the extent that interviews were not conducted with the list of interviewees cited in the ASTM Standard (e.g., local government officials such as NYSDEC personnel, beyond the FOIL requests discussed above), AKRF does not believe that this represents a significant data gap that would materially change the conclusions of this report.

9.0 CONCLUSIONS

This Phase I Environmental Site Assessment was performed in conformance with ASTM Standard E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Practice*. Any exceptions to, or deletions from, the Standard are described in Section 8.0. The term “Recognized Environmental Condition” or REC means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a Phase I Site: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The Standard also includes definitions of Historic REC (HREC), Controlled REC (CREC), and *De Minimis* Condition. A *De Minimis* Condition is defined as an environmental concern that is not a threat to human health or the environment and would not be subject to enforcement action.

Historically, the Phase I Site was Museum-leased since approximately 1874. Historic Sanborn maps indicate that in 1902 the Phase I Site was primarily vacant with the exception of Section 1 located in the southeastern portion of the Phase I Site. Various additions were identified between 1912 and 2000, with Section 16 identified most recently on the 2007 Sanborn map. Throughout their history, the Phase I Site buildings were primarily used for exhibitions, research, maintenance, and educational purposes associated with the Museum. Sections 15 and 15A were identified as a storage structure and auto house on Sanborn maps dated 1951 through 1989. Though Sanborn maps indicate that Sections 15 and 15A were then used as a Power House and Boiler House through 1989, prior reports indicate that Sections 15 and 15A were converted to a garage in approximately 1933, and into the current Ichthyology Department space in approximately 1965. Section 17 historically housed a coal-fired electric power plant until the 1960s, when the Museum converted to alternating current.

Throughout its history, the Phase I Site was bounded to the north by West 81st Street, followed by residential areas; to the east by portions of the Museum outside of the Phase I Site boundary; to the south by West 77th Street, followed by residential and institutional uses; and to the west by Columbus Avenue, followed by multi-story residential and commercial buildings. Central Park and other portions of the Museum and Theodore Roosevelt Park were located east of the Phase I Site.

As part of the environmental review process for the proposed project, this Phase I ESA report and a Subsurface Investigation (Phase II) Work Plan would be submitted to the New York City Department of Environmental Protection (DEP) for review and approval to evaluate any RECs identified as part of this assessment, as described below:

Recognized Environmental Conditions (RECs)

- Historic chemical storage and use at the Phase I Site that might represent RECs included:

Section 16 – One 1,080-gallon diesel fuel oil AST located within an epoxy-coated room with secondary containment berm;

Section 17 - One empty 250-gallon parts washer tank formerly containing trichloroethylene (TCE), and a 500-gallon double-wall AST day tank located on the first floor (associated with the AST located in Section 16); and

Exterior yard - Drums (up to 55 gallons) of ethanol, isopropanol, research space waste, and diesel in chemical storage sheds. Chemical storage sheds included secondary containment systems, and are regularly inspected to prevent spillage. Floor drains noted in the exterior yard and other areas throughout the Phase I Site were reported to be connected to the municipal sewer system but were in good condition with no evidence of releases or spills. Spill prevention kits were also identified in the drum storage area.

Regulatory databases identified the Museum as a small quantity generator (SQG) of hazardous waste from 2005 to 2016, and historical large quantity generator (LQG) of hazardous waste from 1984 to 2005. Chemical waste was disposed of by Clean Harbors, a permitted chemical waste hauler.

Although chemical storage areas are FDNY-permitted, with no evidence of a release noted on or concerning the Phase I Site, the locations of historical on-site use of chemicals (including chlorinated solvents) for specimen preservation and diesel fuel for Phase I Site operations and maintenance will be the subject of future Phase II subsurface investigation to evaluate whether there have been any impacts to subsurface conditions at the Phase I Site.

- The Museum is registered in the New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage (PBS) database with four ASTs and two USTs, with three ASTs and one UST located at the Phase I Site.

Although on-site storage tank controls, including secondary containment in the form of curbs or double-wall construction, interstitial alarms, high level alarms and BMS management were noted with no evidence of a release noted on or concerning the Phase I Site, the locations of historical on-site storage of fuel oil in USTs and ASTs will be the subject of future Phase II subsurface investigation to evaluate whether there have been any impacts to subsurface conditions at the Phase I Site.

- The historical uses of Section 17 (the Power House) included use as a coal-fired electric power plant and of Section 15 included use as an auto house and power house. During the reconnaissance, no evidence of coal storage or residue was observed and there is, therefore, no present information indicating that the Project is expected to be complicated by the former presence of the power house and auto house uses. These areas will be the subject of future Phase II subsurface investigation to evaluate whether there have been any impacts to subsurface conditions at the Phase I Site.

De Minimis Conditions

- Arsenic-preserved hide storage was noted in dedicated areas on the fifth floor of Section 1, and on the third floor of Section 7A. Arsenic-preservation was a common preservation technique for natural history collections used between approximately 1930 and 1990. Preserved hides were stored in designated cabinets.
- The chemical storage area in Section 8 was noted on the fifth floor in an FDNY-permitted room with a secondary containment berm. Chemicals stored included 1 liter to 5 gallons in volume, of 1-butanol, ethyl alcohol, toluene, and other specimen preservation-related solvents, with no record of historic release.
- Chemical storage was noted in Section 11B on the lower level and fourth floors and included nitrate film negatives and acetate film roll storage.
- Chemical storage noted in Section 15 in the Ichthyology collections included approximately 300,000 small jars (up to five gallons) of specimens preserved in ethanol or isopropanol, large containers and drums (up to 55 gallons) of ethanol used for specimen preservation, and other containers (generally 15 gallons or less) of organic solvents, and solvent wastes.
- Additional chemical storage noted in Section 17 included small containers (up to one gallon) of polyester resins, spray paints, and acids in the exhibition production shop on the fifth floor.
- Additional chemical storage noted in the exterior yard included 55-gallon drums of food oil waste, and liquid nitrogen in a 3,000-gallon AST.

- A proposed 30,000-gallon UST was shown on 1962 engineering plans for Section 17 (the Power House). However, no documentation of the UST installation was found. Museum representatives do not believe the tank was installed, and the Museum was reported to have converted from coal to Consolidated Edison steam as a heating source around the time the plans were prepared; thus, it appears the proposed UST was never installed.
- One closed-in-place 1,080-gallon double-wall UST with interstitial monitoring and high-level alarm was identified in the Exterior Yard. This UST was associated with the former 50-gallon day tank AST identified in Section 1.
- The following petroleum storage tanks were located in Museum areas outside of the Phase I Site boundary: one in-service 6,000-gallon double-wall fiberglass reinforced plastic UST containing and one in-service 200-gallon double-wall AST, both containing diesel fuel and supplying an emergency generator. These tanks were located in a courtyard in the southwestern portion of the Museum, outside of the Phase I Site boundary. No odors, staining, or spills were noted in the vicinity of the AST and no related historic spills were documented.
- Based on the age of the Museum sections and prior subsurface investigations which identified historic fill in the northern portion of Theodore Roosevelt Park, historic fill materials may also be present beneath the Phase I Site.

Other Considerations (outside scope of ASTM Standard E1527-13)

The following items were identified as part of the Phase I ESA and are considered outside of the ASTM Standard E-1527-13. Provided that the Museum continues to manage these items in accordance with applicable regulatory requirements, the following are not considered significant concerns.

- Based on the age of the Museum sections, asbestos-containing materials (ACM) may be present. Suspect ACM observed during the reconnaissance included: window glazing and caulking, drywall, plaster, vinyl floor tiles and associated mastic, ceramic tile mastic, suspended ceiling tiles, ventilation duct and thermal pipe insulation, and spray-on fireproofing, generally noted to be in good condition with the exception of surfaces within the former shooting range and some stairway walls within Section 1. Museum representatives stated that the Phase I Site buildings had been surveyed for asbestos and an asbestos management plan was in place. Various abatement activities have been conducted as part of renovations and expansions, and reassessments are conducted prior to any construction activities.
- Based on the age of the Museum sections, lead-based paint may be present in any areas which were not recently renovated. Painted surfaces were generally noted to be in good condition with the exception of surfaces within the below-grade former shooting range and some stairway walls within Section 1.
- Based on the age of the Museum sections, any window caulking, electrical equipment, hydraulic equipment, or fluorescent lighting fixtures installed prior to 1979 may contain PCBs. Any fluorescent bulbs and switches may also contain mercury. No obvious leaks or odors were observed in connection with observed equipment or lighting fixtures in viewed accessible areas.

Potential for Vapor Migration

Due to the use and storage of chemicals on the Phase I Site, a potential for subsurface vapor intrusion may exist. Following any future subsurface testing, potential vapor mitigation of existing or future buildings would be assessed.

Conclusions

Although chemical storage areas are maintained as required, the Museum employs protective measures against releases, and there has been no evidence of a release noted on or concerning the Phase I Site, the locations of historical on-site storage of chemicals and fuel oil, as well as the location of the historical use of Section 17 (the Power House) as a coal-fired electric power plant and Section 15 as an auto house and power house, will be the subject of future Phase II subsurface investigation to evaluate whether there have been any impacts to subsurface conditions at the Phase I Site.

Prior to commencing development activities involving significant subsurface disturbance, a Phase II subsurface investigation, including soil, groundwater and soil vapor sampling and an inspection of the drain in the chemical storage yard, would be conducted to assess subsurface conditions at the Phase I Site.

During any subsurface disturbance, surplus excavated soil and debris would be handled and disposed of in accordance with applicable regulatory requirements. Evidence of a spill (if any) located or found during future investigation or disturbance would be reported to NYSDEC and addressed in accordance with applicable requirements. If subsurface investigation findings indicate that potential vapor intrusion concerns exist, the potential inclusion of vapor mitigation measures, including vapor barriers and sub-slab venting systems, would be evaluated.

If the conclusions of the Phase II investigation indicate any condition that would require a Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP), then prior to the start of the proposed development work, a RAP and CHASP would be prepared and submitted to the NYCDEP for review and approval, which would summarize all environmental mitigation measures designed to protect against the potential for human or environmental exposure to known or unexpectedly encountered hazardous materials during and following construction of the proposed development. The RAP and CHASP would be implemented throughout the duration of project construction.

10.0 SIGNATURE PAGE

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312.

We have the specific qualifications based on education, training, and experience to assess a Phase I Site of the nature, history, and setting of the Phase I Site for which the assessment was performed. We have performed all the appropriate inquiries in conformance with standards and practices set forth in 40 CFR Part 312.



Marc S. Godick, LEP
Senior Vice President



Eric Park
Technical Director

11.0 QUALIFICATIONS

The purpose of this assessment was to convey a professional opinion about the potential presence or absence of contamination, or possible sources of contamination on the Phase I Site, and to identify existing and/or potential environmental issues associated with the Phase I Site including *Recognized Environmental Conditions* as defined in ASTM Standard E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Practice*.

The assessment was performed in accordance with customary principles and practices in the environmental consulting industry, and in accordance with the above-referenced ASTM Standard, except as noted otherwise in Section 8.0. It should only be used as a guide in determining the possible presence or absence of hazardous materials on the Phase I Site at the time of the reconnaissance, as it is based upon the review of readily available records relating to both the Phase I Site and the surrounding area, as well as a visual reconnaissance of current conditions.

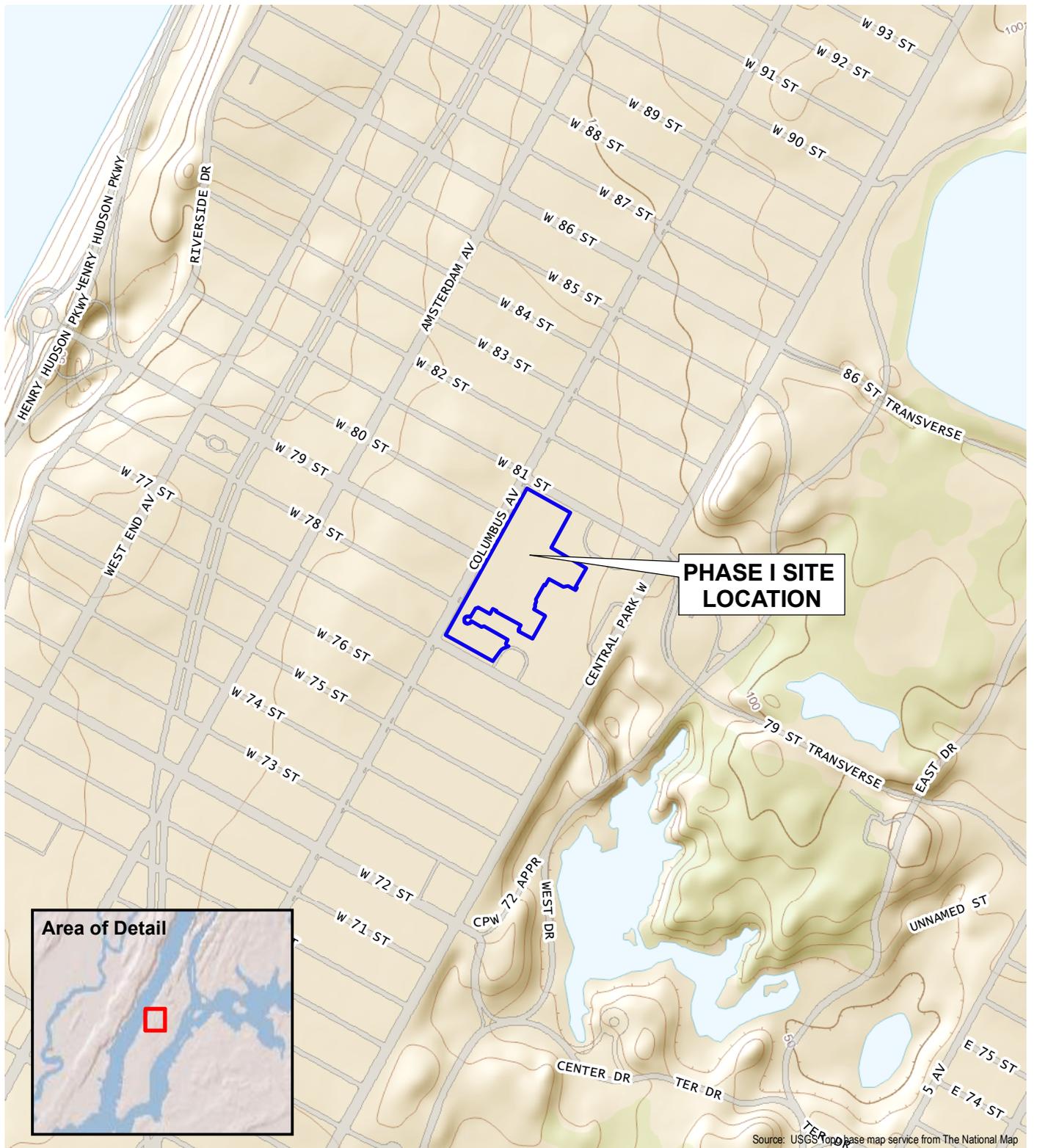
This Phase I Assessment is not, and should not be construed as, a guarantee, warranty, or certification of the presence or absence of hazardous substances, which can be made only with testing, and contains no formal plans or recommendations to rectify or remediate the presence of any hazardous substances which may be subject to regulatory approval. This report is not a regulatory compliance audit.

This report is based on services performed by AKRF, Inc. professional staff and observation of the Phase I Site and its surroundings. We represent that observations made in this assessment are accurate to the best of our knowledge, and that no findings or observations concerning the potential presence of hazardous substances have been withheld or amended. The research and reconnaissance have been carried to a level that meets accepted industry and professional standards. Nevertheless, AKRF and the undersigned shall have no liability or obligation to any party other than the American Museum of Natural History and their successors or assignees, and AKRF's obligations and liabilities to the above, their successors or assignees is limited to fraudulent statements made, or grossly negligent or willful acts or omissions.

12.0 REFERENCES

1. Toxics Targeting, Inc., American Museum of Natural History – New York, New York, Regulatory Radius Search, August 1, 2016.
2. U.S. Geological Survey, *Central Park, NY - NJ Quadrangle, 7.5 minute Series (Topographic), Scale 1:24,000*, 2011.
3. U.S. Geological Survey, Open Files Report 89-462; Bedrock and Engineering Geologic Maps of New York County and Parts of Kings and Queens Counties, New York, and Parts of Bergen and Hudson Counties, New Jersey, Sheet 3 - Bedrock Contours and Outcrops, 1990.
4. New York State Department of Health: Office of Public Health - Environmental Radiation Section, Basement Radon Screening Data, 2016.
5. Sanborn Insurance Maps dated 1902, 1912, 1951, 1976, 1989, and 2007.
6. Environmental Data Resources, Inc., 200 Central Park West – New York, NY 10024, City Directory Abstract, June 24, 2015.
7. Allee King Rosen & Fleming, Inc., *American Museum of Natural History Planetarium and North Side Project - Final Environmental Impact Statement*, September 1996.
8. Higgins Quasebarth & Partners, *American Museum of Natural History Richard Gilder Center for Science, Education, and Innovation – Historic Preservation Background Research Report*, September 2016

FIGURES



Portions of the American Museum of Natural History
and Theodore Roosevelt Park
New York, New York



Environmental Consultants
440 Park Avenue South, New York, N.Y. 10016

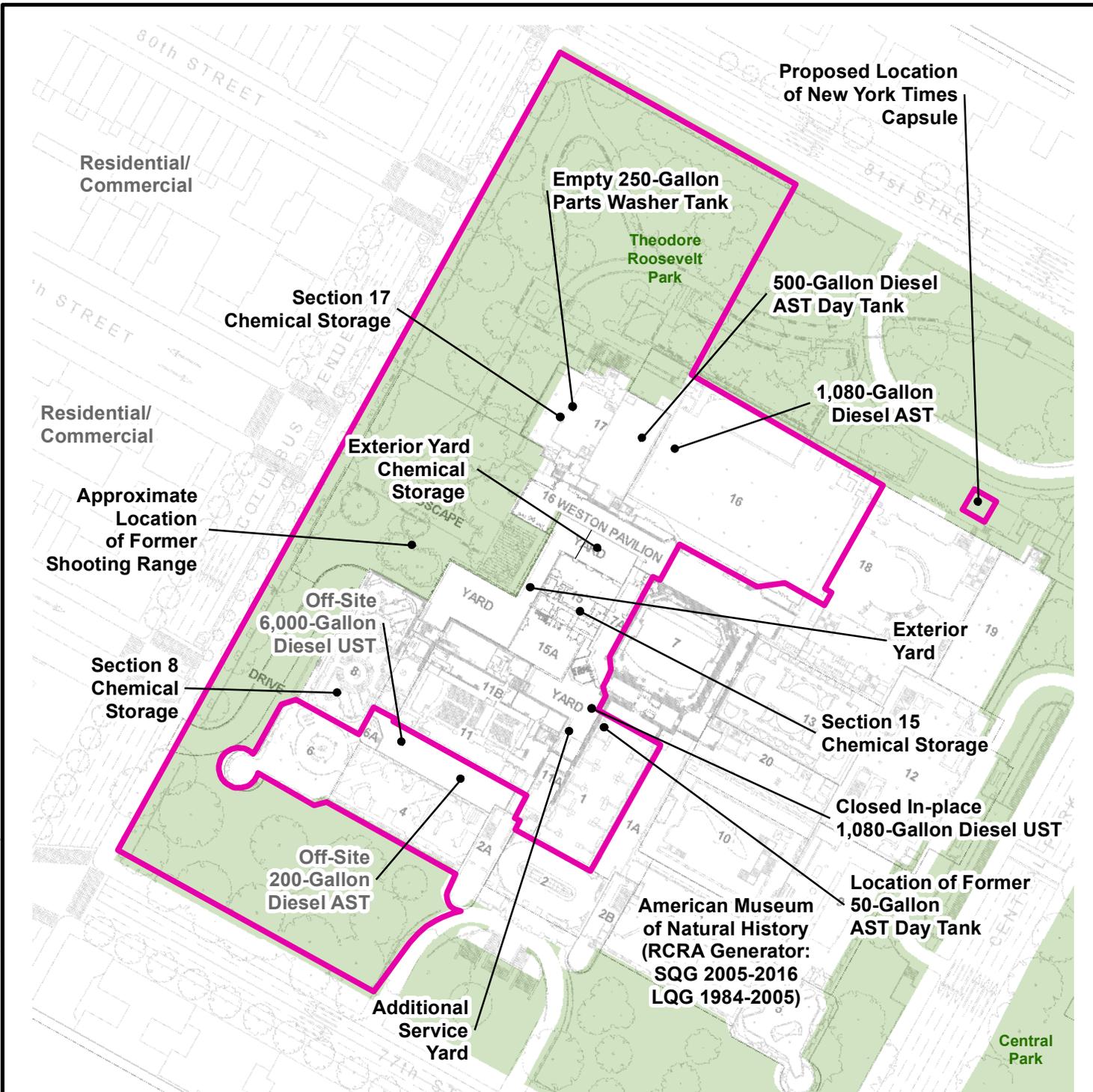
DATE
9/9/2016

PROJECT No.
12166

FIGURE
1

PHASE I SITE LOCATION

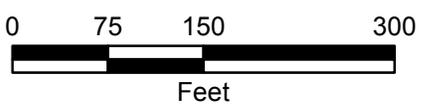
© 2016 AKRF, Inc. Environmental Consultants W:\Projects\12166 - AMNH EXPANSION\Technical\GIS and Graphics\Hazmat\12166 Fig 2 Phase I Site Detail.mxd



Map Source: NYCDP (NYC Dept. of City Planning) GIS database

Legend

-  Phase I Site Boundary
- UST Underground Storage Tank
- AST Aboveground Storage Tank



Portions of the American Museum of Natural History and Theodore Roosevelt Park
New York, New York

AKRF
Environmental Consultants
440 Park Avenue South, New York, N.Y. 10016

| | |
|-------------|------------|
| DATE | 11/15/2016 |
| PROJECT No. | 12166 |
| FIGURE | 2 |

PHASE I SITE DETAIL

APPENDIX A
PHOTOGRAPHIC DOCUMENTATION

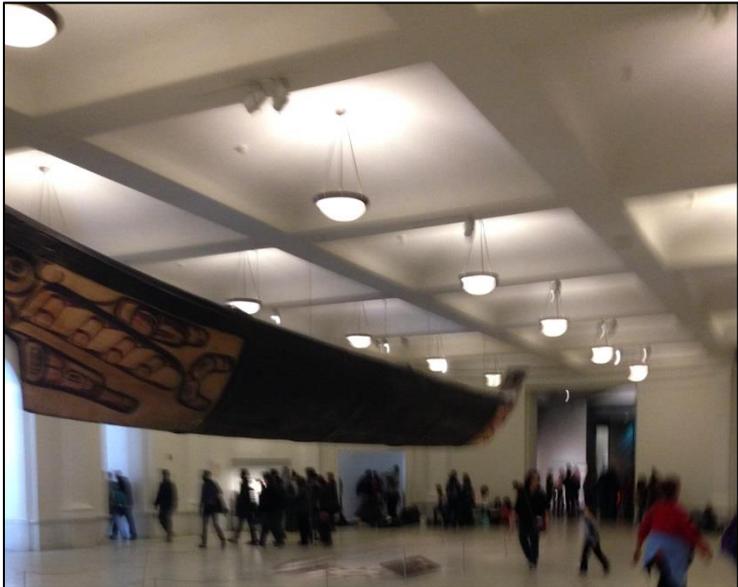
AKRE, Inc.



Photograph 1. Typical exterior view of the Museum, as seen from Columbus Avenue.



Photograph 2. Typical view of exhibition space located within the Museum.



Photograph 3. Typical interior view of exhibition space and visitors' lobby within the Museum.



Photograph 4. Typical library space located within the Museum.



Photograph 5. Small containers of Anthropology Department-related solvents in a chemical storage closet in Section 8.



Photograph 6. Interior view of the former shooting range, located beneath Theodore Roosevelt Park, north-adjacent to Section 8.



Photograph 7. Small containers (up to one gallon) of organic solvents and solvent wastes stored in a laboratory located in Section 15.



Photograph 8. First floor laboratory in Section 15, with chemical storage areas.



Photograph 9. Elevator mechanical room with hydraulic oil tank in Section 15.



Photograph 10. 500-gallon double wall day tank located in Section 17 and associated with the 1,080-gallon aboveground storage tank (AST).



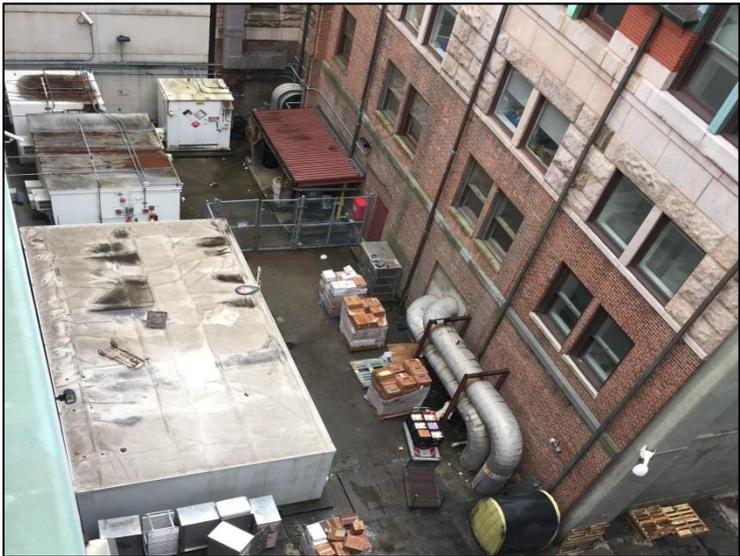
Photograph 11. 1,080-gallon diesel AST in Section 16.



Photograph 12. Parts washer associated with degreasing operations and a decommissioned 250-gallon parts washer tank of trichloroethylene (TCE) in Section 17.



Photograph 13. Floor drain located within the parts washer room of Section 17.



Photograph 14. View of the exterior yard. Chemical storage sheds in the background.



Photograph 15. Chemical storage shed containing 55-gallon drums of ethanol in the exterior yard.



Photograph 16. Steam heating pipes and elevated 55-gallon drums of yellow grease (used cooking oil) stored with a protective cover, located in the exterior yard.



Photograph 17. Spill kit stored in the exterior yard chemical storage area.

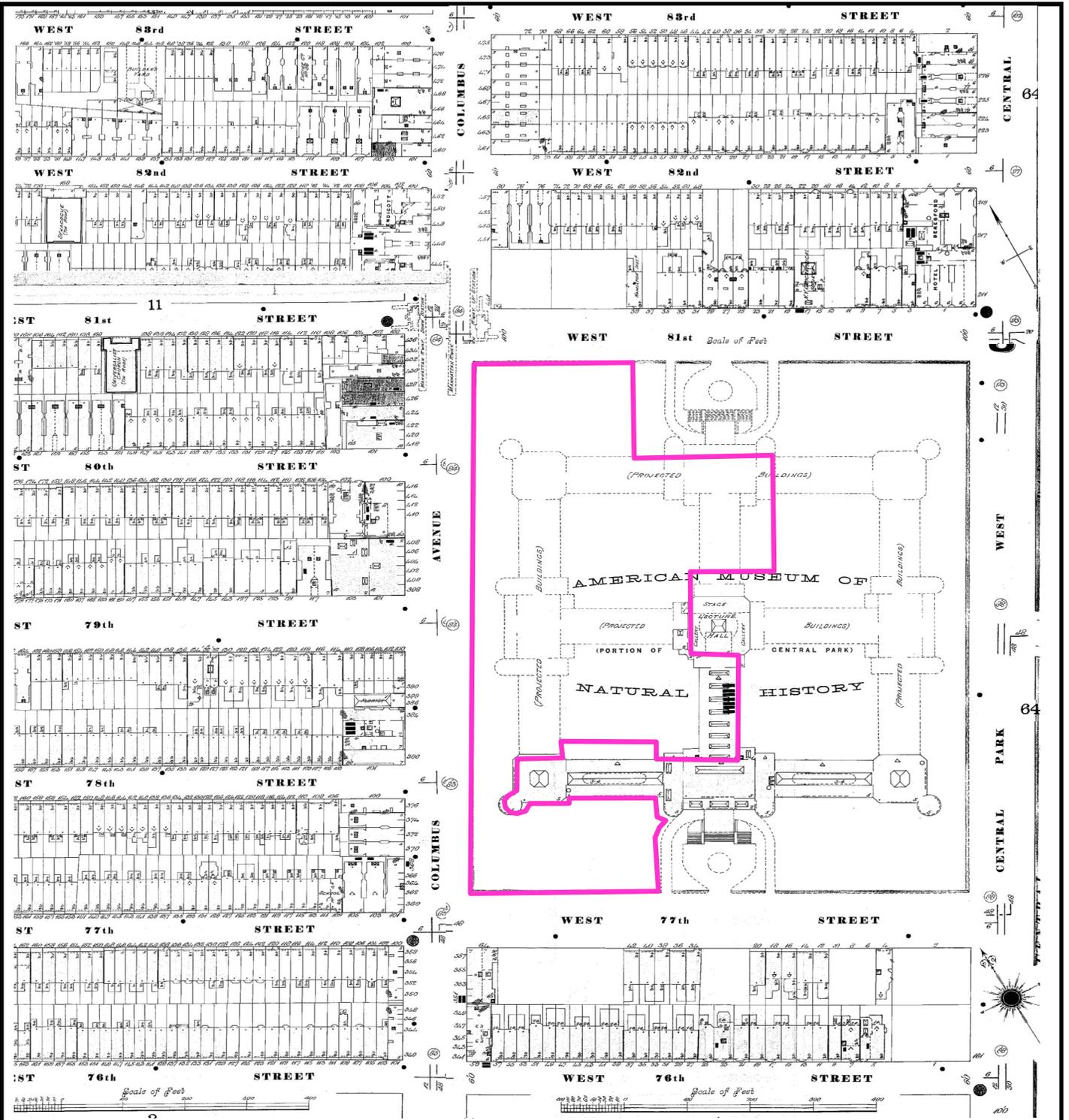


Photograph 18. Location of the closed in-place 1,080-gallon underground storage tank (UST) in the service area, south-adjacent to Section 15. Associated historic piping and overfill alarm in background.



Photograph 19. Typical view of Theodore Roosevelt Park, west-adjacent to the Museum.

APPENDIX B
HISTORICAL SANBORN MAPS



LEGEND:

— Property Boundary

Portions of the American Museum of Natural History and Theodore Roosevelt Park
New York, New York

1902 SANBORN MAP



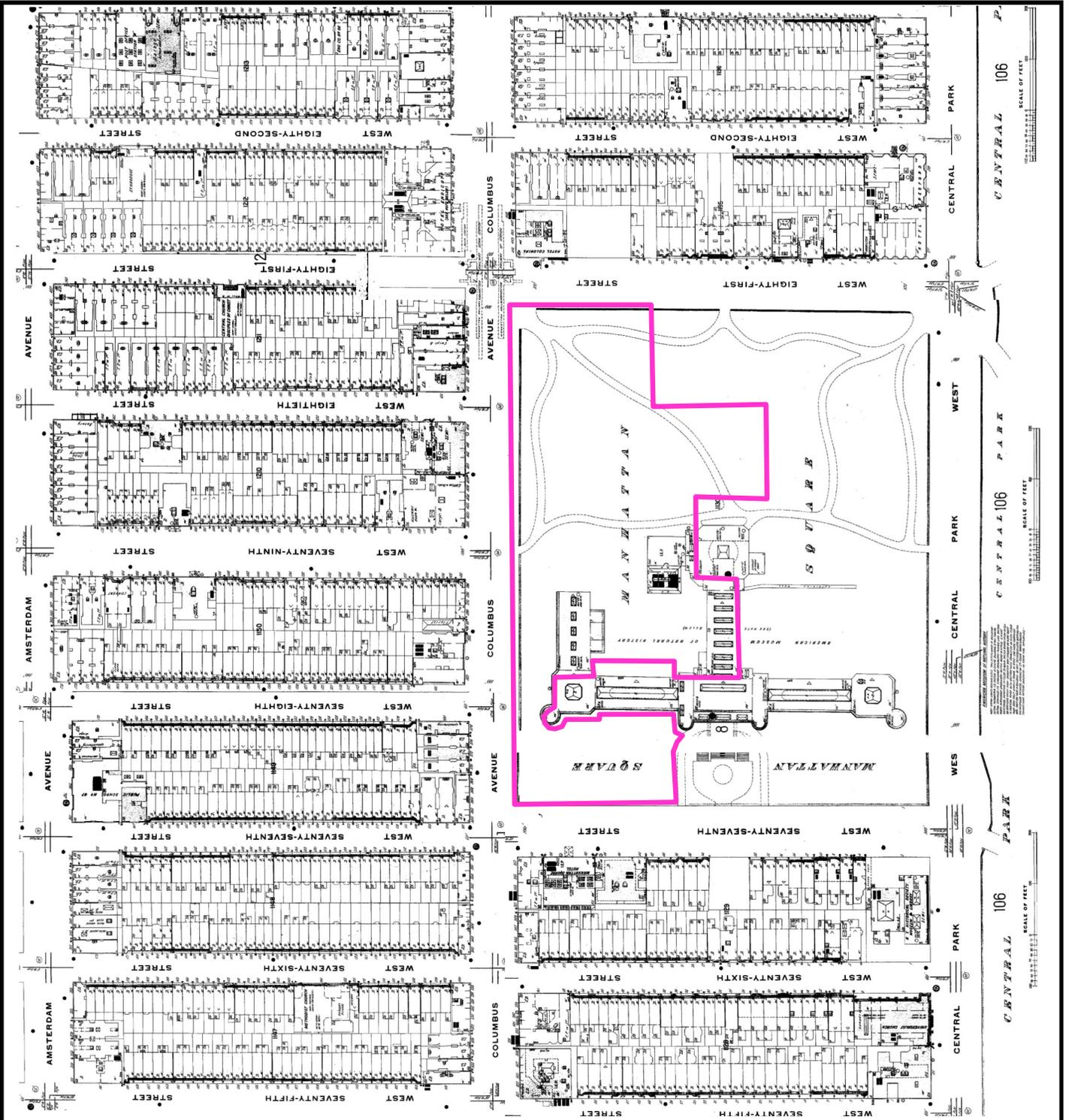
Environmental Consultants
440 Park Avenue South, New York, N.Y. 10016

DATE
11.16.16

PROJECT No.
12166

SCALE
nts

FIGURE
Appx B



LEGEND:

— Property Boundary

Portions of the American Museum of Natural History and Theodore Roosevelt Park
New York, New York

1912 SANBORN MAP



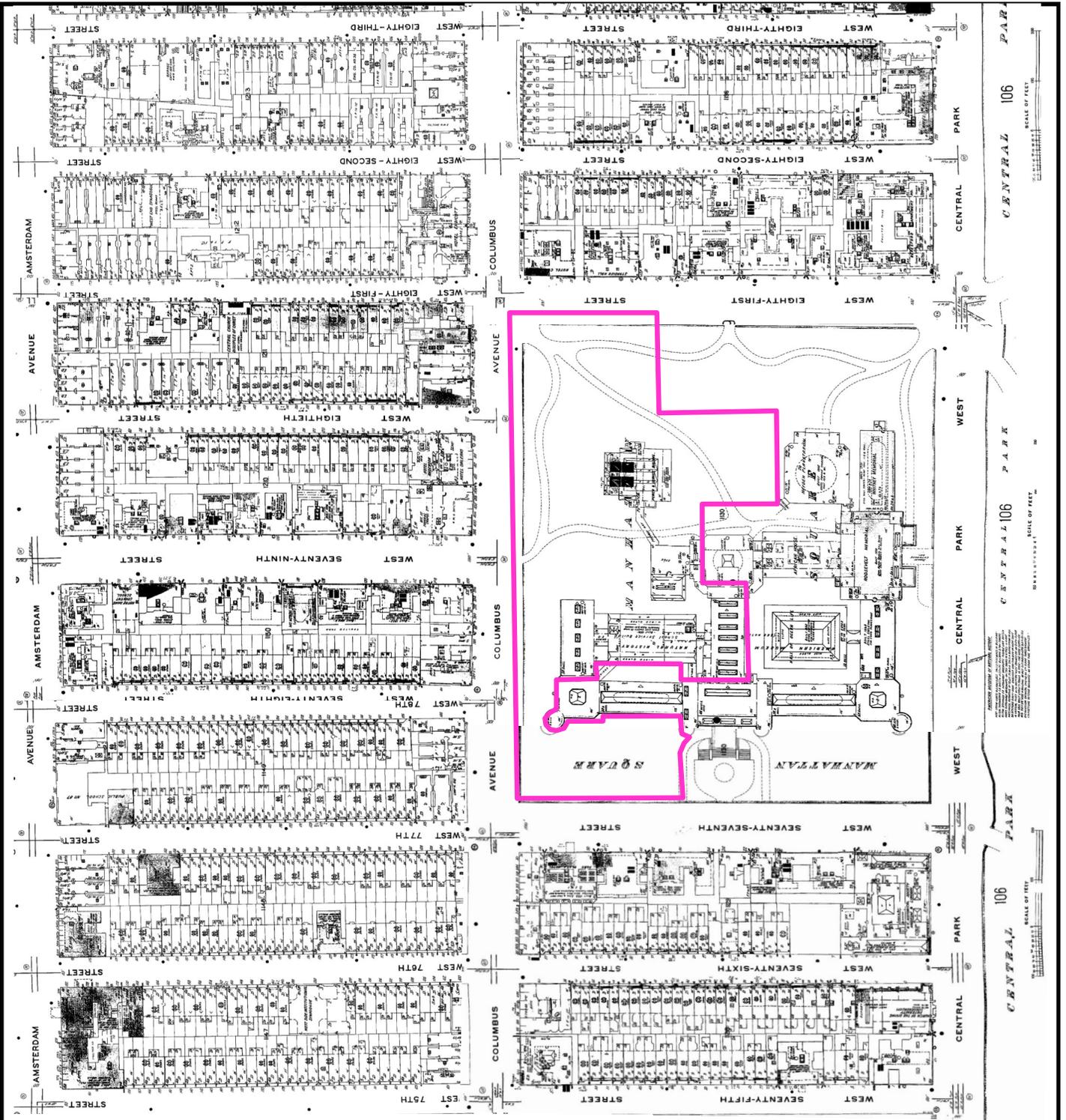
Environmental Consultants
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DATE
11.16.16

PROJECT No.
12166

SCALE
nts

FIGURE
Appx B



LEGEND:

— Property Boundary

Portions of the American Museum of Natural History and Theodore Roosevelt Park
New York, New York

1951 SANBORN MAP



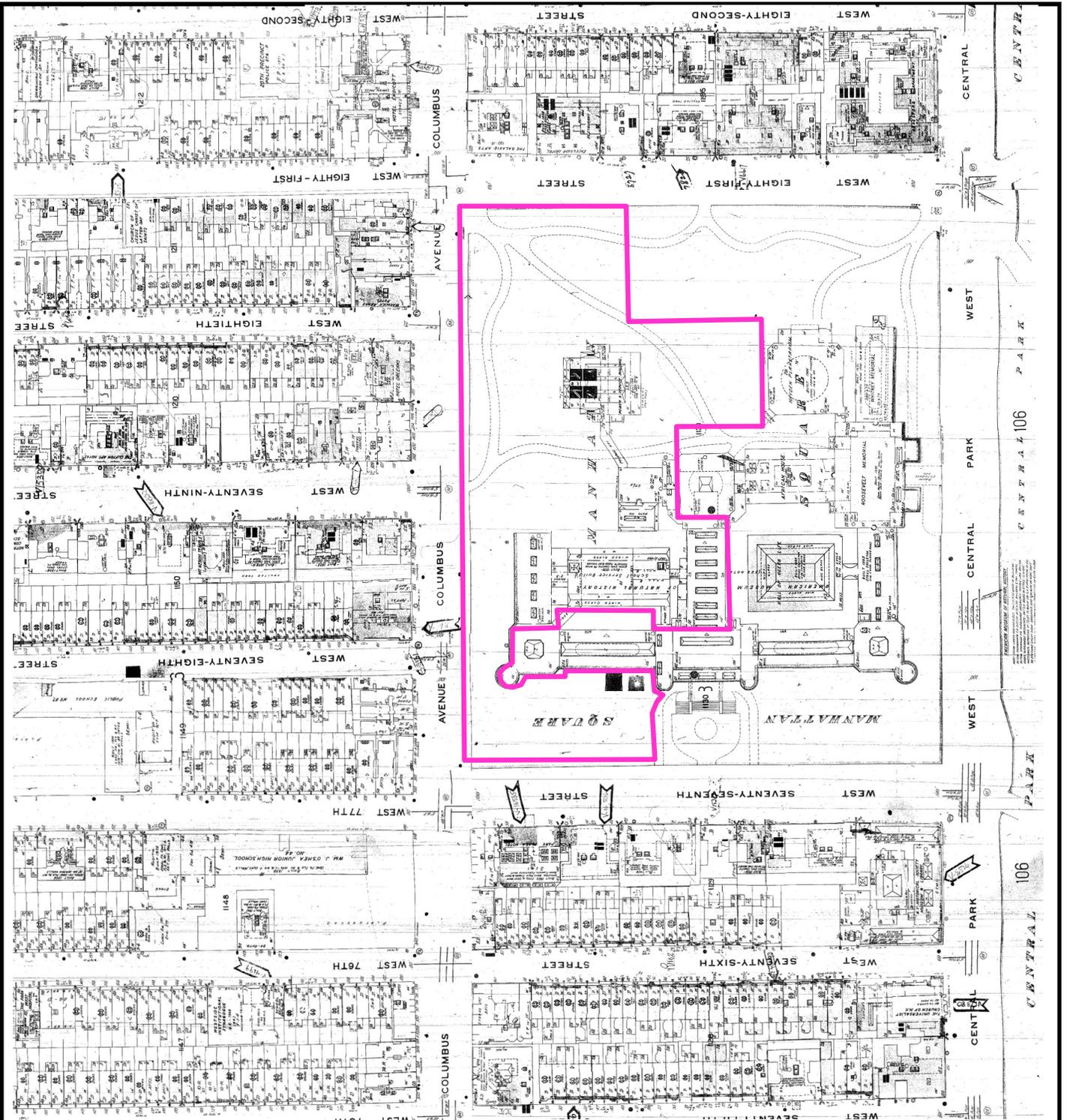
Environmental Consultants
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DATE
11.16.16

PROJECT No.
12166

SCALE
nts

FIGURE
Appx B



LEGEND:

— Property Boundary

Portions of the American Museum of Natural History and Theodore Roosevelt Park
New York, New York

1976 SANBORN MAP



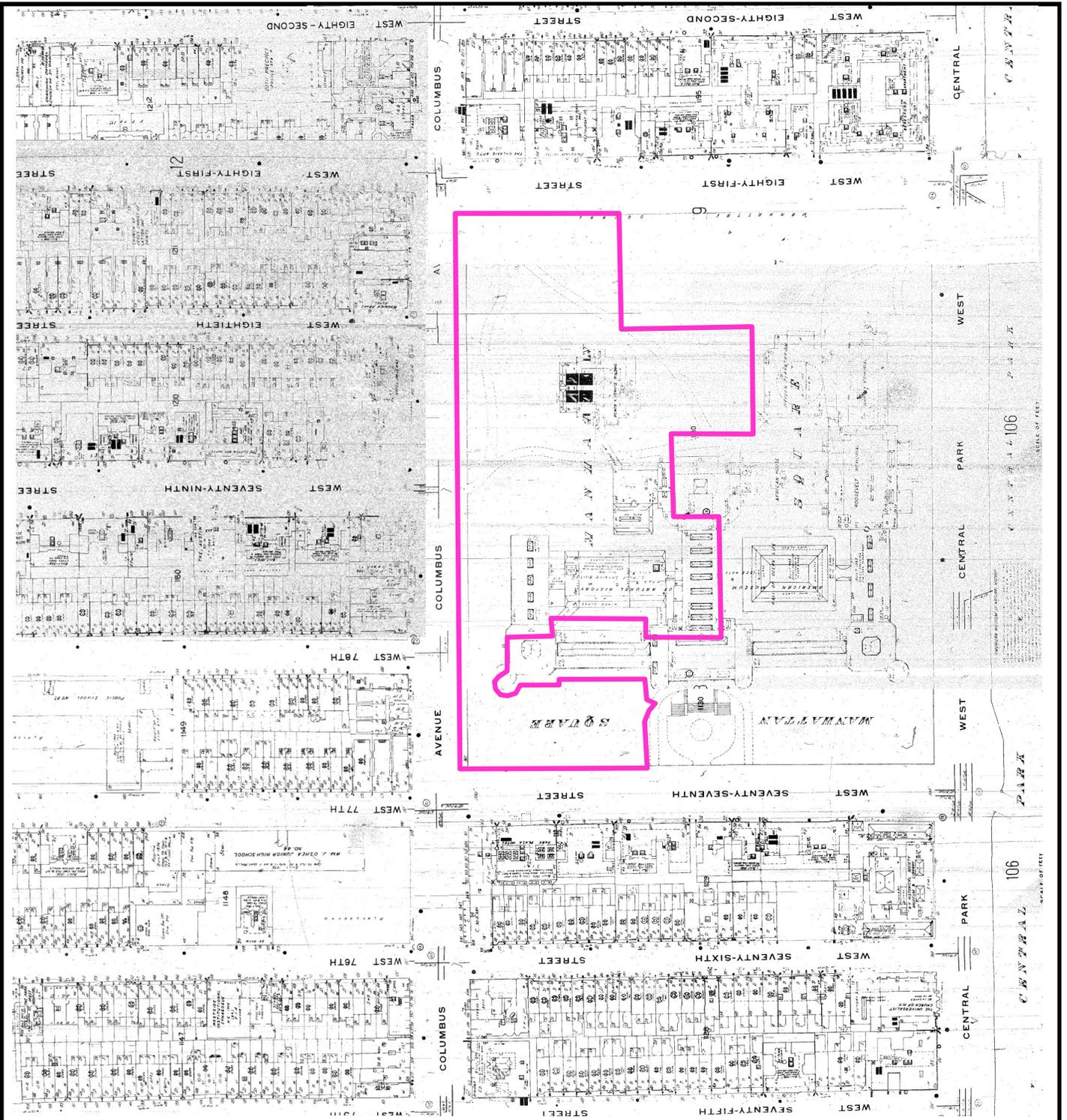
Environmental Consultants
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DATE
11.16.16

PROJECT No.
12166

SCALE
nts

FIGURE
Appx B



LEGEND:

— Property Boundary

Portions of the American Museum of Natural History and Theodore Roosevelt Park
New York, New York

1989 SANBORN MAP



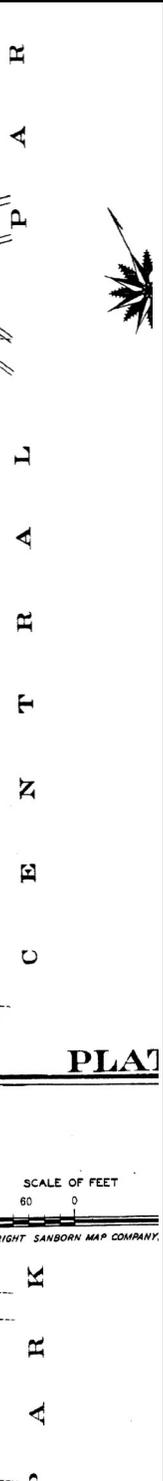
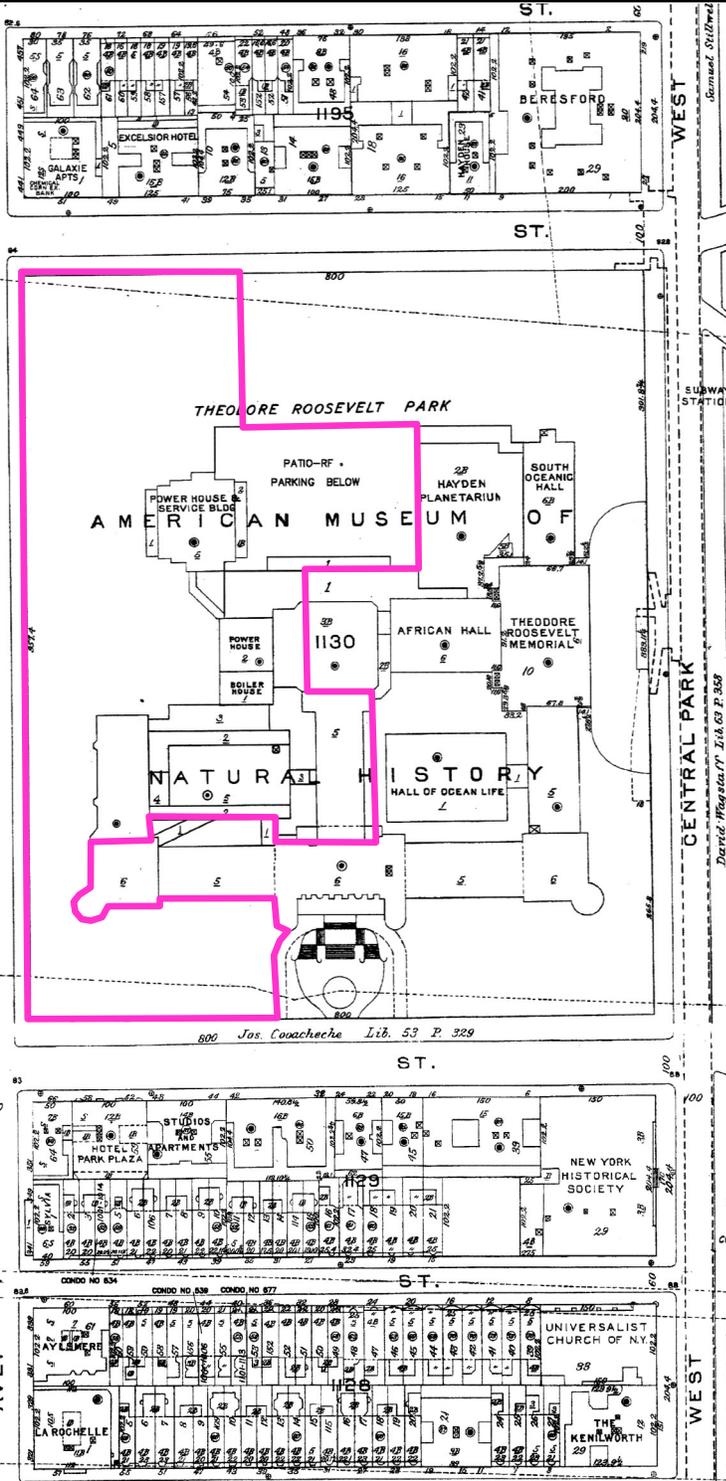
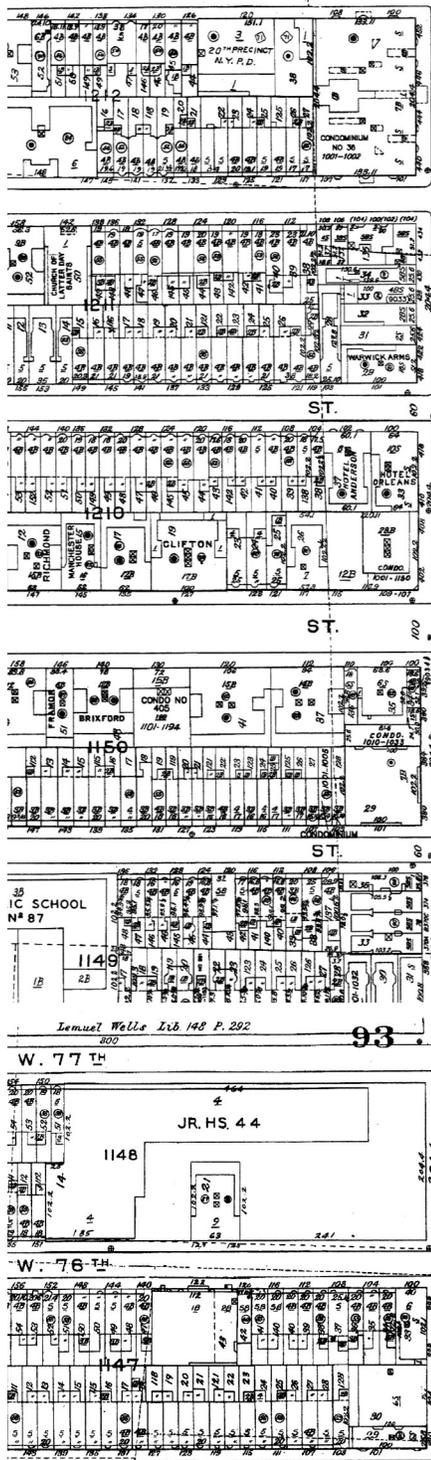
Environmental Consultants
440 Park Avenue South, New York, N.Y. 10016

DATE
11.16.16

PROJECT No.
12166

SCALE
nts

FIGURE
Appx B



LEGEND:

— Property Boundary

Portions of the American Museum of Natural History and Theodore Roosevelt Park
New York, New York

2007 SANBORN MAP



Environmental Consultants
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DATE
11.16.16

PROJECT No.
12166

SCALE
nts

FIGURE
Appx B

APPENDIX C
REGULATORY RECORDS REVIEW

TOXICS TARGETING

PHASE I

ENVIRONMENTAL DATABASE REPORT WITH DATA CHANGE TRACKING

**AMERICAN MUSEUM OF NATURAL HISTORY
NEW YORK, NY 10024**

AUGUST 1, 2016

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PLEASE REFER TO PAGES ONE AND FIVE FOR A DESCRIPTION OF SOME OF THE LIMITATIONS OF THIS ENVIRONMENTAL REPORT.

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- *How to Use Your Report*
- *Toxic Site Databases Analyzed In Your Report*
- *Limitations Of the Information In Your Report*

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- *Table Two: Identified Toxic Sites By Direction*
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- *Table Five: Report Update Summary*
- *Map One: One-Mile Radius Map*
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- *Map Three: Eighth-Mile Radius Map*
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- *USEPA ERNS Check*
- *Unmappable Sites*
- *Hazardous Waste Codes*
- *Information Source Guide*

Introduction

Toxics Targeting has combined environmental database searches, extensive regulatory analysis and sophisticated mapping techniques to produce your customized *Environmental Report*. It checks for the presence of 25 categories of government-reported toxic sites and provides detailed, up-to-date information on each identified site. The findings of your report are presented in an easy-to-understand format that:

1. ***Maps*** the approximate locations of selected government-reported toxic sites identified on or near a specified target address.
2. ***Estimates*** the distance and direction between the target address and each identified toxic site.
3. ***Reports*** air and water permit non-compliance and other regulatory violations.
4. ***Profiles*** some aspects of the usage, manufacture, storage, handling, transport or disposal of toxic chemicals at individual sites.
5. ***Summarizes*** some potential health effect information and drinking water standards for selected chemicals reported at individual sites.

The Three Sections Of Your Report

The first section highlights your report's findings by summarizing identified sites according to: **a)** distance intervals, **b)** direction, **c)** proximity to the target address and **d)** individual site categories. In addition, the locations of all identified toxic sites are illustrated on individual maps for each radius search distance used in your report. A close-up map illustrates the locations of all identified toxic sites, at the shortest radius search distance used in your report. Finally, a map of tax parcels and a table of selected information about those parcels are included.

The second section of your report contains *Toxic Site Profiles* that provide detailed information on each identified toxic site. The information in each *Toxic Site Profile* varies according to its source. Some toxic site categories have extensive information and some have limited information. All the information is updated on a regular basis.

The third section of the report contains appendices that identify: **1)** on-site spills reported to the national Emergency Response Notification System (ERNS), **2)** various toxic sites that cannot be mapped due to incomplete or erroneous addresses or other mapping problems, **3)** codes that characterize hazardous wastes reported at various facilities, **4)** methods used to map toxic sites identified in your report and **5)** information sources used in your report.

How to Use Your Report

- Check Table One to see the number of identified sites by distance intervals.
- Check Table Two to see identified sites sorted by direction.
- Check Table Three to see identified sites ranked by proximity to the target address.
- Check Table Four to see identified sites sorted by site categories.
- Use Table Six to get info for the subject parcel and every parcel found on the Tax Parcel Map
- Refer to the various maps to see the locations of identified toxic sites. Refer to the *Toxic Site Profile* and *Appendix* sections for additional information.

Report Update Protocol

This updated Environmental Database Report highlights selected site data and location changes identified since the archived Report was generated. Each mapped site is color-coded as:

- **New Site**
- **Site With Data Changes Identified in This Updated Report**
- **Site With Location Changes in This Updated Report**
- **Sites With No Data or Location Changes Identified in This Updated Report**

New sites are highlighted in red. These include sites added to a database or mapped in the area searched by this updated report after the archived report was generated.

Sites with data changes are highlighted in purple. Changes involve data additions or revisions after the original report was generated. Data changes were identified by comparing selected data fields in this updated report with the archived report.

Sites with location changes are highlighted in brown. Location changes include revised map locations of more than five meters (100 meters in Nassau County). For sites mapped in New York City on a parcel-by-parcel basis, changes include map locations moved from the original parcel.

Sites with no data or location changes for selected datafields are highlighted in blue in maps and summary tables. These selected datafields are unchanged from the original report. The text for these site profiles is black.

This updated report searched the following datafields for changes:

National Priority List Sites

- Site description changes
- NPL status changes

NYS Inactive Hazardous Waste Disposal Site Registry

- Class code changes
- Site description changes
- Assessment of environmental problems changes
- Assessment of health problems changes
- Site type changes
- Acreage changes
- Confirmed waste/quantity changes
- Controls
- Projects

RCRA Federal Corrective Action Sites

- Additional corrective actions
- US EPA generator type changes

RCRA State Corrective Action Sites

- Classification code changes
- Site description changes

CERCLIS Superfund Sites

- NFRAP status changes
- Site Description

Brownfield Sites

- Classification code changes
- Site description changes
- Assessment of environmental problems changes
- Assessment of health problems changes
- Site type changes
- Acreage changes
- Confirmed waste/quantity changes
- Controls
- Projects

NYSDEC Solid Waste Facilities/Landfills

- Status changes

RCRA Hazardous Waste Treatment, Storage & Disposal Sites

- US EPA generator type changes
- Additional corrective actions
- Land disposal changes
- Storer changes
- Receives offsite waste changes
- Treatment changes
- Incinerator changes
- Transporter changes
- New waste codes

NYS Toxic Spills

- Note: spills includes tank failures, tank test failures, Unknown/Other and “Miscellaneous” categories
- Closed date changes
- Meets standards changes
- New material records
- Investigator remarks changes
- Cause changes
- Spill category/class changes
- Material class changes

NYS Major Oil Storage Sites

- Number of tanks changes
- Newly closed tank(s)

NYS Petroleum Bulk Storage Facilities

- Site Status changes
- New tanks, tank status changes, tank location changes, tank capacity changes, tank content changes
- Tank install date changes, tank test date changes, tank close date changes

NYC Petroleum Bulk Storage Facilities

- Description changes

RCRA Hazardous Waste Generators & Transporters

- US EPA generator type changes
- Additional corrective actions
- New waste codes

Chemical Bulk Storage

Site Status changes

Number of tanks changes

Newly closed tank(s)

Toxic Release Inventory Sites

Status changes

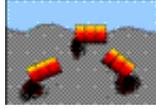
Civil & Administrative Enforcement Docket Facilities

New case record(s)

Toxic Site Databases Analyzed In Your Report

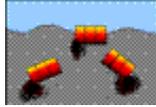
Search Radius

One-Mile



1) ***National Priority List for Federal Superfund Cleanup***: a listing of sites known to pose environmental or health hazards that are being investigated or cleaned up under the Federal Superfund program.

Half-Mile



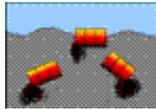
2) ***Delisted National Priority List Sites***: a listing of NPL sites that have been removed from the National Priority List.

One-Mile



3) ***New York Inactive Hazardous Waste Disposal Site Registry***: a state listing of sites that can pose environmental or public health hazards requiring investigation or clean up.

One-Mile



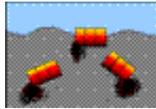
4) ***New York Inactive Hazardous Waste Disposal Site Registry Qualifying***: a state listing of sites that qualify for possible inclusion to the NYDEC Inactive Haz. Waste Disposal Site Registry.

One-Mile



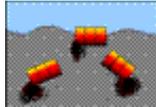
5) ***New York and Federal RCRA Corrective Action Activity (CORRACTS)***: waste facilities with RCRA corrective action activity reported by the USEPA and NYS DEC.

Half-Mile



6) ***CERCLIS*** (Comprehensive Environmental Response, Compensation and Liability Information System): a federal listing of Non-NFRAP sites that can pose environmental or public health hazards requiring investigation or clean up.

Half-Mile



7) ***CERCLIS NFRAP***: a federal listing of CERCLIS sites that have no further remedial action planned.

Half-Mile



8) ***New York State Brownfield Cleanup Sites***: a listing of sites that are abandoned, idled or under-used industrial and commercial sites where expansion or redevelopment is complicated by real or perceived environmental contamination.

Half-Mile



9) ***New York Solid Waste Facilities Registry***: active and inactive landfills, incinerators, transfer stations or other solid waste management facilities.

Half-Mile



10) ***New York City 1934 Solid Waste Sites***: a listing of solid waste disposal sites operated by New York City municipal authorities circa 1934.

Half-Mile



11) ***New York and Federal Hazardous Waste Treatment, Storage or Disposal Facilities:*** sites reported by the NYS manifest system and the USEPA's Resource Conservation and Recovery Act Information System (RCRIS). Also includes the following database:

- ***RCRA violations:*** waste facilities with violations reported by the USEPA pursuant to the Resource Conservation and Recovery Act.

Half-Mile



12) ***Toxic Spills: active and inactive or closed*** spills reported to state environmental authorities, including *remediated* and *unremediated* leaking underground storage tanks. This database includes the following categories:

- Tank Failures
- Tank Test Failures
- Unknown Spill Cause or Other Spill Causes
- Miscellaneous Spill Causes

Eighth-Mile



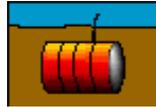
13) ***New York State Major Oil Storage Facilities:*** sites with more than a 400,000 gallon capacity for storing petroleum products.

Eighth-Mile



14) ***New York State Petroleum Bulk Storage Facilities:*** sites with more than an 1,100 gallon capacity for storing petroleum products.

Eighth-Mile



15) ***New York City Fire Dept Tank Data:*** tank data from 1997.

Eighth-Mile



16) ***New York and Federal Hazardous Waste Generators and Transporters:*** sites reported by the NYS manifest system and the USEPA's Resource Conservation and Recovery Act Information System (RCRA). Also includes the following database:

- ***RCRA violations:*** waste facilities with violations reported by the USEPA pursuant to the Resource Conservation and Recovery Act.

Eighth-Mile



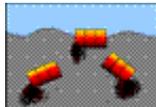
17) ***New York Chemical Bulk Storage Facilities:*** sites storing hazardous substances listed in 6 NYCRR Part 597 in aboveground tanks with capacities of 185 gallons or more and/or underground tanks of any size

Eighth-Mile



18) ***Historic New York City Utility Sites (1890's to 1940's):*** power generating stations, manufactured gas plants, gas storage facilities, maintenance yards and other gas and electric utility sites.

Half-Mile



19) ***New York Hazardous Substance Disposal Site Draft Study:*** a state listing of sites contaminated with toxic substances that can pose environmental or public health hazards. These sites were not eligible for state clean up funding programs.

Eighth-Mile



20) ***Federal Toxic Release Inventory Facilities:*** discharges of selected toxic chemicals to air, land, water or treatment facilities.

Eighth-Mile



21) ***Federal Air Discharges:*** air pollution point sources monitored by U.S. EPA and/or state and local air regulatory agencies.

Eighth-Mile



22) ***Federal Permit Compliance System Toxic Wastewater Discharges:*** permitted toxic wastewater discharges.

Eighth-Mile



23) ***Federal Civil and Administrative Enforcement Docket:*** judiciary cases filed on behalf of the U. S. Environmental Protection Agency by the Department of Justice.

On-site only
(250 ft)



24) ***New York City Environmental Quality Review (CEQR) – E Designation Sites:*** parcels assigned a special environmental (“E”) designation under the CEQR process. E designation requires specific protocols that must be followed.

Property only



25) ***ERNS: Federal Emergency Response Notification System Spills:*** a listing of federally reported spills.

Limitations Of The Information In Your Report

The information presented in your *Environmental Report* has been obtained from various local, state and federal government agencies. Please be aware that: **1)** additional information on individual sites may be available, **2)** newly discovered sites are continually reported and **3)** all map locations are approximate. As a result, this report is intended to be the **FIRST STEP** in the process of identifying and evaluating possible environmental threats to specific properties and can only serve as a guide for conducting on-site visits or additional, more detailed toxic hazard research.

Toxics Targeting tries to ensure that the information in your report is presented accurately and with minimal alteration. Systematic changes are made to correct obvious address errors in order to allow sites to be mapped. Any address changes that are made are noted in the map information section at the top of each corresponding *Toxic Site Profile*. Some information that has been withheld by government authorities remains included in Toxic Site Profiles and is identified as archival information. Since the information presented in your report is not edited, please be aware that it can contain reporting errors or typographical mistakes made by the site owners/operators or government agencies that produced the information. Also please be aware of some other limitations of the information in your report:

- The digital map used by *Toxics Targeting* is the same one used by the U. S. Census or local authorities in New York City. While the map is generally accurate, no map is perfect. In addition, *Toxics Targeting's* mapping methods estimate where toxic site addresses are located if the address is not specifically designated. **FOR THESE REASONS, ALL MAP LOCATIONS OF ADDRESSES AND REPORTED TOXIC SITES SHOULD BE CONSIDERED APPROXIMATE AND SHOULD BE VERIFIED BY ON-SITE VISITS;**
- **UNDISCOVERED, UNREPORTED OR UNMAPPABLE TOXIC SITES MIGHT NOT BE IDENTIFIED BY THIS REPORT'S CHECK OF 25 TOXIC SITE CATEGORIES. TOXIC SITES REPORTED IN OTHER GOVERNMENT DATABASES MIGHT ALSO EXIST. FOR THESE REASONS, YOUR REPORT MIGHT NOT IDENTIFY ALL THE TOXIC SITES THAT EXIST IN THE AREA IT SEARCHES;**
- The appendix of your report contains a listing of sites that could not be mapped due to incomplete or erroneous address information or other mapping problems. This listing includes unmappable toxic sites in the zip codes searched for the report as well as toxic sites without zip codes reported in the same county. **IF YOU WOULD LIKE INFORMATION ON ANY OF THE LISTED SITES, PLEASE CONTACT *TOXICS TARGETING* AND REFER TO THE SITE ID NUMBER.**
- New York State Department of Environmental Conservation Remediation Site Borders are approximate and may not align with tax parcel boundaries mapped by local authorities or the digital map used by the US Census Bureau. As a result, Remediation Site Borders may overlap parcels that do not involve site remediation activities. Selected parcels also can involve multiple Remediation Site Borders. Refer to individual site profiles for more information. Sites without profiles include potential new sites or sites that have not yet been publicly listed by DEC.
- Some toxic sites identified in your report may be classified as **known hazards**. Most of the toxic sites identified in your report involve **potential hazards** related to the on-site use, manufacture, handling, storage, transport or disposal of toxic chemicals. Some of the toxic sites identified in your report may be the addresses of parties responsible for toxic sites located elsewhere. **YOU SHOULD ONLY CONCLUDE THAT TOXIC HAZARDS ACTUALLY EXIST AT A SPECIFIC SITE WHEN GOVERNMENT AUTHORITIES MAKE THAT DETERMINATION OR WHEN THAT CONCLUSION IS FULLY DOCUMENTED BY THE FINDINGS OF AN APPROPRIATE SITE INVESTIGATION UNDERTAKEN BY LICENSED PROFESSIONALS;**

- Compass directions and distances are approximate. Compass directions are calculated from the subject property address to the mapped location of each identified toxic site. The compass direction does not necessarily refer to the closest property boundary of an identified toxic site. The compass direction also can vary substantially for toxic sites that are located very close to the subject property address.
- The information presented in your report is a summary of the information that *Toxics Targeting* obtains from government agencies on reported toxic sites. **YOU MAY BE ABLE TO OBTAIN ADDITIONAL INFORMATION ABOUT REPORTED SITES WITH THE FREEDOM OF INFORMATION REQUEST FORM LETTERS THAT ARE PROVIDED ON THE INSIDE OF THE BACK COVER.**

Section One:

Report Summary

- *Table One: Number of Identified Toxic Sites By Distance Interval*
- *Table Two: Identified Toxic Sites By Direction*
- *Table Three: Identified Toxic Sites By Category*
- *Table Four: Identified Toxic Sites By Proximity*
- *Table Five: Report Update Summary*

- *Map One: One-Mile Radius Map*

- *Map Two: Half-Mile Radius Map*

- *Map Three: Eighth-Mile Radius Map*

- *Map Four: Eighth-Mile Radius Close up Map*

- *Map Five: Tax Parcel Map*

- *Table Six: Tax Parcel Map Information Table*

NUMBER OF IDENTIFIED SITES BY DISTANCE INTERVAL

| Database Searched | 0 – 100 ft | 100 ft – 1/8 mi | 1/8 mi – 1/4 mi | 1/4 mi – 1/2 mi | 1/2 mi – 1 mi | Site Category Totals |
|---|---|-----------------|-----------------|-----------------|---------------|----------------------|
| ASTM–Required 1 Mile Search | | | | | | |
| National Priority List (NPL) Sites | 0 | 0 | 0 | 0 | 0 | 0 |
| NYS Inactive Hazardous Waste Disposal Site Registry | 0 | 0 | 0 | 0 | 0 | 0 |
| NYS Inactive Haz Waste Disposal Site Registry Qualifying | 0 | 0 | 0 | 0 | 0 | 0 |
| RCRA Corrective Action (CORRACTS) Sites | 0 | 0 | 0 | 0 | 0 | 0 |
| ASTM–Required 1/2 Mile Search | | | | | | |
| Delisted National Priority List (NPL) Sites | 0 | 0 | 0 | 0 | Not searched | 0 |
| CERCLIS Superfund Non–NFRAP Sites | 0 | 0 | 0 | 0 | Not searched | 0 |
| CERCLIS Superfund NFRAP Sites | 0 | 0 | 0 | 0 | Not searched | 0 |
| Brownfields Sites | | | | | | |
| Voluntary Cleanup Program | 0 | 0 | 0 | 0 | Not searched | 0 |
| Environmental Restoration Program | 0 | 0 | 0 | 0 | Not searched | 0 |
| Brownfield Cleanup Program | 0 | 0 | 0 | 1 | Not searched | 1 |
| NYC Voluntary Cleanup Program | 0 | 0 | 0 | 0 | Not searched | 0 |
| NYSDEC Solid Waste Facilities / Landfills | 0 | 0 | 0 | 0 | Not searched | 0 |
| RCRA Hazardous Waste Treatment, Storage, Disposal Sites | 0 | 0 | 0 | 0 | Not searched | 0 |
| NYS Toxic Spills | | | | | | |
| Active Tank Failures | 0 | 0 | 0 | 0 | Not searched | 0 |
| Active Tank Test Failures | 0 | 0 | 1 | 1 | Not searched | 2 |
| Active Spills – Unknown / Other Causes | 0 | 0 | 1 | 2 | Not searched | 3 |
| Active Spills – Miscellaneous Causes | 0 | 0 | 0 | 0(4) | Not searched | 0(4) |
| Closed Tank Failures | 0 | 3 | 15 | 17 | Not searched | 35 |
| Closed Tank Test Failures | 0 | 4 | 12 | 13 | Not searched | 29 |
| Closed Spills – Unknown / Other Causes | 2 | 14 | 52 | 95 | Not searched | 163 |
| Closed Spills – Miscellaneous Causes | 2 | 44 | 7(76) | 16(209) | Not searched | 69(285) |
| ASTM–Required Property & Adjacent Property (1/8 Mile Search) | | | | | | |
| NYS Major Oil Storage Facilities | 0 | 0 | Not searched | Not searched | Not searched | 0 |
| Local & State Petroleum Bulk Storage Sites | 0 | 71 | Not searched | Not searched | Not searched | 71 |
| RCRA Hazardous Waste Generators & Transporters | 18 | 112 | Not searched | Not searched | Not searched | 130 |
| NYS Chemical Bulk Storage Sites | 0 | 0 | Not searched | Not searched | Not searched | 0 |
| Historic Utility Facilities | 0 | 0 | Not searched | Not searched | Not searched | 0 |
| ASTM–Required On–Site Only Search | | | | | | |
| NYC Environmental Quality Review Requirements ("E") Sites* | 0 | 0 | Not searched | Not searched | Not searched | 0 |
| Emergency Response Notification System (ERNS) | 0 | Not searched | Not searched | Not searched | Not searched | 0 |
| Institutional Controls / Engineering Controls (IC/EC) | See databases for NPL, CERCLIS, Inactive Hazardous Waste Disposal Site Registry and Brownfield Sites. | | | | | |
| ASTM–Required Databases Distance Interval Totals | 22 | 248 | 88(76) | 145(213) | 0 | 503(289) |

Numbers in () indicate spills not mapped and profiled in this report, and are listed at the end of the active and closed spills sections. See these lists for a description of the parameters involved with identifying these spills.

* NYC Environmental Quality Review Requirements ("E") Sites were searched at 250 feet.

NOTE: Table continues on next page.

Non-ASTM Databases 1/2 Mile Search

| | | | | | | |
|--|---|---|---|---|--------------|---|
| 1934 NYC Municipal Waste Landfills | 0 | 0 | 0 | 0 | Not searched | 0 |
| Hazardous Substance Waste Disposal Sites | 0 | 0 | 0 | 0 | Not searched | 0 |

Non-ASTM Databases 1/8 Mile Search

| | | | | | | |
|--|---|---|--------------|--------------|--------------|---|
| Toxic Release Inventory Sites (TRI) | 0 | 0 | Not searched | Not searched | Not searched | 0 |
| Permit Compliance System (PCS) Toxic Wastewater Discharges | 0 | 0 | Not searched | Not searched | Not searched | 0 |
| Air Discharges | 0 | 1 | Not searched | Not searched | Not searched | 1 |
| Civil & Administrative Enforcement Docket Facilities | 0 | 0 | Not searched | Not searched | Not searched | 0 |

| | | | | | | |
|--|----------|----------|----------|----------|---------------------|----------|
| Non-ASTM Databases Distance Interval Totals | 0 | 1 | 0 | 0 | Not Searched | 1 |
|--|----------|----------|----------|----------|---------------------|----------|

| | | | | | | |
|--|-----------|------------|---------------|-----------------|----------|-----------------|
| <i>Distance Interval Totals</i> | 22 | 249 | 88(76) | 145(213) | 0 | 504(289) |
|--|-----------|------------|---------------|-----------------|----------|-----------------|

Numbers in () indicate spills not mapped and profiled in this report, and are listed at the end of the active and closed spills sections. See these lists for a description of the parameters involved with identifying these spills.

Identified Toxic Sites by Direction

American Museum of Natural History New York, NY 10024

* Compass directions can vary substantially for sites located very close to the subject property address.

Sites less than 100 feet from subject property sorted by distance

| Map Id# | Site Name | Site Street | Approximate Distance & Direction From Property | Toxic Site Category |
|---------|-------------------------------------|----------------------------------|--|---|
| 374 | CONSOLIDATED EDISON | WEST 80 ST & COLUMBUS AVE | 49 feet to the N* | Hazardous Waste Generator/Transporter |
| 375 | CON EDISON | W 80TH ST & COLUMBUS AVE | 49 feet to the N* | Hazardous Waste Generator/Transporter |
| 71 | INTERSECTION | W. 79TH ST. & COLUMBUS AVE. | 50 feet to the W* | Closed Status Spill (Unk/Other Cause) |
| 234 | VAULT 7264 | COLUMBUS AV AT W 79 ST | 50 feet to the W* | Closed Status Spill (Misc. Spill Cause) |
| 376 | CON EDISON | NWC 79 ST & COLUMBUS AVE | 50 feet to the W* | Hazardous Waste Generator/Transporter |
| 377 | CON EDISON | SWC 79 & COLUMBUS AVE | 50 feet to the W* | Hazardous Waste Generator/Transporter |
| 378 | CON EDISON | NWC 79 ST & COLUMBUS AVE | 50 feet to the W* | Hazardous Waste Generator/Transporter |
| 379 | CON EDISON | SWC 79 ST & COLUMBUS AVE | 50 feet to the W* | Hazardous Waste Generator/Transporter |
| 380 | CON EDISON | 18-120 79 ST & COLUMBUS AVE | 50 feet to the W* | Hazardous Waste Generator/Transporter |
| 235 | COLUMBIS AVE | W. 78TH ST | 51 feet to the SW* | Closed Status Spill (Misc. Spill Cause) |
| 381 | CON EDISON | FO 51-7 W 81 ST EO COLUMBUS AVE | 74 feet to the NNE* | Hazardous Waste Generator/Transporter |
| 382 | CON EDISON | FO 426-428 COLUMBUS AVE NO 80 ST | 75 feet to the N* | Hazardous Waste Generator/Transporter |
| 383 | CON EDISON | FO 430-32 COLUMBUS AVE NO 80 ST | 75 feet to the N* | Hazardous Waste Generator/Transporter |
| 384 | CON EDISON | FO 422-424 COLUMBUS AVE | 76 feet to the N* | Hazardous Waste Generator/Transporter |
| 72 | 204936; NE W 77 ST COLUMBUS AV | NE W 77 ST COLUMBUS AV | 79 feet to the SW* | Closed Status Spill (Unk/Other Cause) |
| 385 | CONED | W 77TH ST & COLUMBUS AVE | 79 feet to the SW* | Hazardous Waste Generator/Transporter |
| 386 | CONSOLIDATED EDISON SB51914 | W 77 ST AND COLUMBUS AVE | 79 feet to the SW* | Hazardous Waste Generator/Transporter |
| 387 | CONSOLIDATED EDISON COMPANY OF NY | N/W/C W 77TH ST AND CENTRAL PA | 79 feet to the SW* | Hazardous Waste Generator/Transporter |
| 388 | CONSOLIDATED EDISON | N/E COLUMBUS & 77 ST | 79 feet to the SW* | Hazardous Waste Generator/Transporter |
| 389 | CON EDISON | NW COLUMBUS & 77 ST | 79 feet to the SW* | Hazardous Waste Generator/Transporter |
| 390 | AMERICAN MUSEUM OF NATIONAL HISTORY | 79TH STREET & COLUMBIA | 86 feet to the SE* | Hazardous Waste Generator/Transporter |
| 391 | AMERICAN MUSEUM OF NATURAL HISTORY | CENTRAL PARK W & 79TH ST | 86 feet to the SE* | Hazardous Waste Generator/Transporter |

Sites between 100 ft and 400 ft from the subject property sorted by direction and distance

| Map Id# | Site Name | Site Street | Approximate Distance & Direction From Property | Toxic Site Category |
|---------|-----------------------|---------------------------------|--|---|
| 239 | 430 COLUMBUS AVE | 430 COLUMBUS AVE | 164 feet to the N* | Closed Status Spill (Misc. Spill Cause) |
| 240 | 430 COLUMBUS AVE | 430 COLUMBUS AVE | 164 feet to the N* | Closed Status Spill (Misc. Spill Cause) |
| 245 | 106 WEST 81ST ST/MANH | 106 WEST 81ST STREET | 203 feet to the N | Closed Status Spill (Misc. Spill Cause) |
| 402 | CON EDISON | 108 W 81 ST | 218 feet to the N | Hazardous Waste Generator/Transporter |
| 403 | CON EDISON | FO 108 W 81 ST EO AMSTERDAM AVE | 224 feet to the N | Hazardous Waste Generator/Transporter |
| 404 | CON EDISON | 442 COLUMBUS AVE | 226 feet to the N | Hazardous Waste Generator/Transporter |

| | | | | |
|-----|------------------------------------|---------------------------------|----------------------|---|
| 413 | CON EDISON | FO 112 W 81 ST EO AMSTERDAM AVE | 265 feet to the N | Hazardous Waste Generator/Transporter |
| 327 | ENDICOTT COMMERCIAL UNIT | 440 COLUMBUS AVENUE | 288 feet to the N | Petroleum Bulk Storage Site |
| 328 | ENDICOTT APARTMENT CORP. | 101 WEST 81ST STREET | 288 feet to the N | Petroleum Bulk Storage Site |
| 77 | GURBUZ RESIDENCE | 101 WEST 81ST ST APT 103 | 293 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 252 | 101 WEST 81ST ST | 101 WEST 81ST ST | 293 feet to the N | Closed Status Spill (Misc. Spill Cause) |
| 253 | ENDICOTT APARTMENT CORP. | 101 WEST 81ST STREET | 293 feet to the N | Closed Status Spill (Misc. Spill Cause) |
| 254 | APART | 101 WEST 81ST STREET | 293 feet to the N | Closed Status Spill (Misc. Spill Cause) |
| 255 | BASEMENT SPILL | 446 COLUMBUS AV | 293 feet to the N | Closed Status Spill (Misc. Spill Cause) |
| 394 | ADLERS CLEANERS | 445 COLUMBUS AVE | 132 feet to the NNE* | Hazardous Waste Generator/Transporter |
| 395 | JEFAN CLEANING SERVICE | 445 COLUMBUS AVENUE | 132 feet to the NNE* | Hazardous Waste Generator/Transporter |
| 398 | CON EDISON | FO 441 COLUMBUS AVE NO 81 ST | 144 feet to the NNE* | Hazardous Waste Generator/Transporter |
| 73 | 51 WEST 81ST ST | 51 WEST 81ST ST | 157 feet to the NNE* | Closed Status Spill (Unk/Other Cause) |
| 315 | 51 WEST 81ST CORP. | 51 WEST 81ST ST | 165 feet to the NNE* | Petroleum Bulk Storage Site |
| 400 | CON EDISON | FO 440 COLUMBUS AVE NO 81 ST | 205 feet to the NNE | Hazardous Waste Generator/Transporter |
| 401 | CON EDISON | FO 446 COLUMBUS AVE | 205 feet to the NNE | Hazardous Waste Generator/Transporter |
| 43 | APT BLDG TTF | 74 WEST 82ND ST | 253 feet to the NNE | Closed Status Tank Test Failure |
| 249 | HOME/APT | 74 WEST 82 ST | 253 feet to the NNE | Closed Status Spill (Misc. Spill Cause) |
| 325 | WALBER 82ND STREET ASSOCIATES | 80 WEST 82ND ST | 259 feet to the NNE | Petroleum Bulk Storage Site |
| 421 | CON EDISON | W 82 ST LO COLUMBUS AVE | 335 feet to the NNE | Hazardous Waste Generator/Transporter |
| 422 | CON EDISON | 468 82ND ST & COLUMBUS AVE | 335 feet to the NNE | Hazardous Waste Generator/Transporter |
| 423 | CON EDISON | W 82 ST & COLUMBUS AV | 335 feet to the NNE | Hazardous Waste Generator/Transporter |
| 424 | CON EDISON | N/E/C 82 ST & COLUMBUS AVE | 335 feet to the NNE | Hazardous Waste Generator/Transporter |
| 333 | ALEIDA REALTY CRP | 73 W 82 ST | 381 feet to the NNE | Petroleum Bulk Storage Site |
| 436 | CONED | 101 W 82 STREET AND COLUMBUS A | 386 feet to the NNE | Hazardous Waste Generator/Transporter |
| 392 | CONSOLIDATED EDISON | V0062 – 41–49 W 81ST | 129 feet to the NE* | Hazardous Waste Generator/Transporter |
| 393 | CON EDISON | FO 41 W 81 ST EO COLUMBUS AVE | 129 feet to the NE* | Hazardous Waste Generator/Transporter |
| 237 | PVT DWELLING/APT. COMPLEX | 45 WEST 81 ST | 155 feet to the NE* | Closed Status Spill (Misc. Spill Cause) |
| 238 | EXCELSIOR HOTEL | 45 WEST 81ST STREET | 155 feet to the NE* | Closed Status Spill (Misc. Spill Cause) |
| 314 | THE EXCELSIOR HOTEL | 45 WEST 81 STREET | 162 feet to the NE* | Petroleum Bulk Storage Site |
| 75 | SERVICE BOX 4414 | 35 WEST 81ST ST | 172 feet to the NE* | Closed Status Spill (Unk/Other Cause) |
| 244 | BASEMENT | 35 WEST 81ST ST | 172 feet to the NE* | Closed Status Spill (Misc. Spill Cause) |
| 318 | 81ST DWELLERS | 35 WEST 81ST ST | 185 feet to the NE* | Petroleum Bulk Storage Site |
| 246 | SPILL NUMBER 0200505 | 25 W 81ST ST | 242 feet to the NE | Closed Status Spill (Misc. Spill Cause) |
| 247 | 64 WEST 82ND ST/MANH | 64 WEST 82ND STREET | 252 feet to the NE | Closed Status Spill (Misc. Spill Cause) |
| 324 | 25 WEST 81ST STREET LLC | 25 WEST 81ST STREET | 258 feet to the NE | Petroleum Bulk Storage Site |
| 78 | SPILL NUMBER 0401041 | 32 WEST 82ND ST | 327 feet to the NE | Closed Status Spill (Unk/Other Cause) |
| 256 | SIDEWALK | 32 WEST 82ND ST | 327 feet to the NE | Closed Status Spill (Misc. Spill Cause) |
| 257 | SPILL NUMBER 0104721 | 32 WEST 82ND ST | 327 feet to the NE | Closed Status Spill (Misc. Spill Cause) |
| 330 | 3282 OWNERS CORP. | 32 WEST 82ND STREET | 342 feet to the NE | Petroleum Bulk Storage Site |
| 407 | RUDIN MGMT CO /25 WEST 81 STREET | 25 WEST 81 STREET | 245 feet to the ENE | Hazardous Waste Generator/Transporter |
| 262 | APARTMENT | 15 WEST 81ST ST | 361 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 435 | CON EDISON | 20 WEST 82ND STREET | 374 feet to the ENE | Hazardous Waste Generator/Transporter |
| 334 | 15 W 81ST ST TENANTS CORP | 15 W 81ST ST | 394 feet to the ENE | Petroleum Bulk Storage Site |
| 303 | AMERICAN MUSEUM OF NATURAL HISTORY | 200 CENTRAL PARK WEST | 111 feet to the ESE* | Petroleum Bulk Storage Site |
| 304 | AMERICAN MUSEUM OF NATUR | 179 CENTRAL PARK W | 111 feet to the ESE* | Petroleum Bulk Storage Site |
| 326 | 4077 OWNERS CORP | 40 WEST 77 ST | 262 feet to the S | Petroleum Bulk Storage Site |
| 260 | MARBOROS REALTY | 22 WEST 77TH ST | 353 feet to the S | Closed Status Spill (Misc. Spill Cause) |
| 261 | SPILL NUMBER 0211129 | 22 WEST 77TH ST | 353 feet to the S | Closed Status Spill (Misc. Spill Cause) |

| | | | | |
|-----|---|---------------------------------|----------------------|---|
| 332 | 22 WEST 77TH STREET | 22 WEST 77TH STREET | 357 feet to the S | Petroleum Bulk Storage Site |
| 437 | CONSOLIDATED EDISON | 25 W 76TH ST | 388 feet to the S | Hazardous Waste Generator/Transporter |
| 438 | CON EDISON | 25 W 76 ST | 388 feet to the S | Hazardous Waste Generator/Transporter |
| 306 | PARC 77 | 50-52 WEST 77TH STREET | 129 feet to the SSW* | Petroleum Bulk Storage Site |
| 243 | APT. BUILDING | 44 WEST 77TH ST | 166 feet to the SSW* | Closed Status Spill (Misc. Spill Cause) |
| 316 | PARK 44 CORP | 44 WEST 77TH STREET | 169 feet to the SSW* | Petroleum Bulk Storage Site |
| 399 | PARK 44 CORPORATION | 44 W 77TH ST | 200 feet to the SSW | Hazardous Waste Generator/Transporter |
| 322 | 341 COLUMBUS REALTY CO. LLC | 59 WEST 76TH STREET | 247 feet to the SSW | Petroleum Bulk Storage Site |
| 7 | 53 W 76TH ST CONDOMINIUM | 53 W 76TH ST | 252 feet to the SSW | Closed Status Tank Failure |
| 248 | 55 WEST 76TH STREET | 55 WEST 76TH STREET | 253 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 250 | 57 W. 76TH STREET | 57 W. 76TH STREET | 253 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 412 | CONSOLIDATED EDISON | 345 COLUMBUS AVE | 260 feet to the SSW | Hazardous Waste Generator/Transporter |
| 425 | CONSOLIDATED EDISON | F/O 43 W 76 E/O COLUMBUS AVE | 336 feet to the SSW | Hazardous Waste Generator/Transporter |
| 79 | SPILL NUMBER 0313030 | 31 WEST 76TH STREET | 338 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 335 | 60 WEST 76TH STREET | 60 WEST 76TH STREET | 394 feet to the SSW | Petroleum Bulk Storage Site |
| 307 | 64-66 W 77 ST | 66 WEST 77TH STREET | 140 feet to the SW* | Petroleum Bulk Storage Site |
| 236 | SPILL NUMBER 9906118 | 66 WEST 77TH ST | 143 feet to the SW* | Closed Status Spill (Misc. Spill Cause) |
| 317 | THE MUSEUM 77 CONDOMINIUM | 105 WEST 77TH STREET | 184 feet to the SW* | Petroleum Bulk Storage Site |
| 410 | CON EDISON | FO 343 COLUMBUS AVE NO 76 ST | 258 feet to the SW | Hazardous Waste Generator/Transporter |
| 411 | CON EDISON | OPP 341 COLUMBUS AVE & 76 ST | 259 feet to the SW | Hazardous Waste Generator/Transporter |
| 329 | INTERMEDIATE SCHOOL 44 - MANHATTAN M044 | 100 WEST 77TH STREET | 304 feet to the SW | Petroleum Bulk Storage Site |
| 417 | CON ED | 340 COLUMBUS AVE | 325 feet to the SW | Hazardous Waste Generator/Transporter |
| 418 | CON ED | 340 COLUMBUS AVE | 325 feet to the SW | Hazardous Waste Generator/Transporter |
| 419 | NYC DEPT OF EDUCATION - I S 44M | 100 W 77TH ST | 325 feet to the SW | Hazardous Waste Generator/Transporter |
| 259 | COLUMBUS AVE & 76TH ST | COLUMBUS AVE & 76TH ST | 337 feet to the SW | Closed Status Spill (Misc. Spill Cause) |
| 426 | CONSOLIDATED EDISON | 76 ST & COLUMBUS AVE V6001 | 337 feet to the SW | Hazardous Waste Generator/Transporter |
| 427 | CON EDISON | NWC 76 ST & COLUMBUS AVE | 337 feet to the SW | Hazardous Waste Generator/Transporter |
| 428 | CON EDISON | W 76 ST & COLUMBUS AVE | 337 feet to the SW | Hazardous Waste Generator/Transporter |
| 429 | CON EDISON | W 76 ST & COLUMBUS AV | 337 feet to the SW | Hazardous Waste Generator/Transporter |
| 430 | CON EDISON | 76TH ST & COLUMBUS AVE | 337 feet to the SW | Hazardous Waste Generator/Transporter |
| 431 | CON ED | N/W/C 76 ST & COLUMBUS AVE | 337 feet to the SW | Hazardous Waste Generator/Transporter |
| 396 | EVELYN BUILDING THE | 101 W 78TH ST | 141 feet to the WSW* | Hazardous Waste Generator/Transporter |
| 310 | JOBEN REALTY ASSOC | 101 W. 78TH ST | 149 feet to the WSW* | Petroleum Bulk Storage Site |
| 312 | 370 COLUMBUS REALTY LLC | 370 COLUMBUS AVE | 152 feet to the WSW* | Petroleum Bulk Storage Site |
| 74 | ONE GALLON FUEL OIL SPILL ON CONCRETE | 101 WEST 78TH STREET | 164 feet to the WSW* | Closed Status Spill (Unk/Other Cause) |
| 241 | SPILL NUMBER 9802899 | 101 WEST 78TH ST | 164 feet to the WSW* | Closed Status Spill (Misc. Spill Cause) |
| 242 | APARTMENT BLDG | 101 W 78TH ST | 164 feet to the WSW* | Closed Status Spill (Misc. Spill Cause) |
| 414 | CONSOLIDATED EDISON | 115 W 77TH ST | 267 feet to the WSW | Hazardous Waste Generator/Transporter |
| 416 | CON EDISON | FO 114 W 78 ST EO AMSTERDAM AVE | 299 feet to the WSW | Hazardous Waste Generator/Transporter |
| 258 | PUBLIC SCHOOL 44 | 100 WEST 77TH ST | 336 feet to the WSW | Closed Status Spill (Misc. Spill Cause) |
| 311 | 102 WEST ASSOCIATES | 102 WEST 79 STREET | 151 feet to the W* | Petroleum Bulk Storage Site |
| 42 | BLDG | 102 WEST 79TH ST | 165 feet to the W* | Closed Status Tank Test Failure |
| 323 | 118 TENANTS CORP | 118 WEST 79TH STREET | 247 feet to the W | Petroleum Bulk Storage Site |
| 76 | 118 W 79TH ST/MANHATTAN | 118 WEST 79TH STREET | 262 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 415 | CON EDISON | 113 W 78 ST | 291 feet to the W | Hazardous Waste Generator/Transporter |
| 432 | CON EDISON | 120-28 W 79 & COLUMBUS AVE | 339 feet to the W | Hazardous Waste Generator/Transporter |
| 331 | ENNISMORE APARTMENTS INC | 124 WEST 79TH STREET | 347 feet to the W | Petroleum Bulk Storage Site |
| 80 | ENNISMORE APARTMENTS INC | 124 WEST 79TH ST | 362 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 408 | CON EDISON | FO 118 W 79 ST EO AMSTERDAM AVE | 246 feet to the WNW | Hazardous Waste Generator/Transporter |

| | | | | |
|-----|--------------------------------|---------------------------------|----------------------|---|
| 409 | CON EDISON | FO 117 W 79 ST EO AMSTERDAM AVE | 251 feet to the WNW | Hazardous Waste Generator/Transporter |
| 8 | 123 W. 79TH STREET | 123 W. 79TH STREET | 315 feet to the WNW | Closed Status Tank Failure |
| 433 | CON EDISON | FO 120 W 79 ST EO AMSTERDAM AVE | 347 feet to the WNW | Hazardous Waste Generator/Transporter |
| 313 | THE PARK BELVEDERE CONDOMINIUM | 101 WEST 79TH STREET | 157 feet to the NW* | Petroleum Bulk Storage Site |
| 319 | 102 WEST 80TH ST | 102 WEST 80TH ST | 192 feet to the NW* | Petroleum Bulk Storage Site |
| 405 | CONSOLIDATED EDISON | 104 WEST 80 STREET | 230 feet to the NW | Hazardous Waste Generator/Transporter |
| 406 | CONSOLIDATED EDISON | 104 WEST 80 STREET | 230 feet to the NW | Hazardous Waste Generator/Transporter |
| 321 | D L R H ASSOC | 117 WEST 79TH ST | 246 feet to the NW | Petroleum Bulk Storage Site |
| 251 | 108 WEST 80TH ST/MANH | 108 WEST 80TH STREET | 272 feet to the NW | Closed Status Spill (Misc. Spill Cause) |
| 305 | THE ORLEANS | 100 WEST 80TH STREET | 129 feet to the NNW* | Petroleum Bulk Storage Site |
| 397 | CON EDISON | 420 COLUMBUS & 80 ST | 143 feet to the NNW* | Hazardous Waste Generator/Transporter |
| 308 | 101 WEST 80TH OWNERS CORP | 101 WEST 80TH STREET | 146 feet to the NNW* | Petroleum Bulk Storage Site |
| 309 | 101 W 80 OWNERS CORP | 101 W 80 ST | 146 feet to the NNW* | Petroleum Bulk Storage Site |
| 320 | WEST 80 ST ASSOCIATES | 103 W 80 ST | 212 feet to the NNW | Petroleum Bulk Storage Site |
| 420 | CON EDISON | 129 W 80TH ST & AMSTERDAM AV | 332 feet to the NNW | Hazardous Waste Generator/Transporter |
| 434 | CONSOLIDATED EDISON | 122 WEST 81 STREET | 362 feet to the NNW | Hazardous Waste Generator/Transporter |

Sites equal to or greater than 400 ft from subject property sorted by direction and distance

| Map Id# | Site Name | Site Street | Approximate Distance & Direction From Property | Toxic Site Category |
|---------|------------------------------|--------------------------------|--|---|
| 338 | 20TH PCT | 120 WEST 82ND STREET | 410 feet to the N | Petroleum Bulk Storage Site |
| 44 | 20 PRECINCT NYPD -DDC | 120 WEST 82ND STREET | 416 feet to the N | Closed Status Tank Test Failure |
| 45 | 20 PRECINCT NYPD -DDC | 120 WEST 82ND STREET | 416 feet to the N | Closed Status Tank Test Failure |
| 81 | 20 RECINCT NYPD -DDC | 120 WEST 82ND STREET | 416 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 451 | CON EDISON | 111 W 82 ST | 471 feet to the N | Hazardous Waste Generator/Transporter |
| 347 | WEST 82ND OWNERS CORPORATION | 107-111 WEST 82ND STREET | 503 feet to the N | Petroleum Bulk Storage Site |
| 348 | 107-111 W.82 ST.ASSOC. | 109 W 82 ST | 503 feet to the N | Petroleum Bulk Storage Site |
| 361 | FDNY ENGINE CO. 74 | 120 WEST 83RD STREET | 608 feet to the N | Petroleum Bulk Storage Site |
| 367 | RESIDENTIAL BLDG | 127 W 82 ST | 628 feet to the N | Petroleum Bulk Storage Site |
| 368 | GREYSTONE CONDOMINIUM | 127 WEST 82ND STREET | 628 feet to the N | Petroleum Bulk Storage Site |
| 502 | CON EDISON | FO 109 W 83 ST & AMSTERDAM AVE | 654 feet to the N | Hazardous Waste Generator/Transporter |
| 47 | WEST 83RD ST REALITY CORP | 146 WEST 83RD ST | 792 feet to the N | Closed Status Tank Test Failure |
| 97 | PARKING GARAGE | 150 WEST 83RD STREET | 850 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 49 | APT BLDG | 150 WEST 84TH ST | 1017 feet to the N | Closed Status Tank Test Failure |
| 52 | LEWIS BRANDEIS HIGH SCHOO | 145 WEST 84TH STREET | 1132 feet to the N | Closed Status Tank Test Failure |
| 290 | APARTMENT BUILDING | 203 W. 85TH ST. | 1630 feet to the N | Closed Status Spill (Misc. Spill Cause) |
| 162 | MANHOLE #25950 | 86TH ST & AMSTERDAM AV | 1699 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 165 | DRUM RUN | 213 WEST 85TH STREET | 1731 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 64 | 176 WEST 87TH STREET | 176 WEST 87TH STREET | 1824 feet to the N | Closed Status Tank Test Failure |
| 203 | VERIZON MANHOLE | WEST 87TH ST & BROADWAY | 2195 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 34 | 205 W 88TH ST/MANHATTAN | 205 WEST 88TH STREET | 2308 feet to the N | Closed Status Tank Failure |
| 1 | 267-273 WEST 87TH STREET | 267-273 WEST 87TH STREET | 2415 feet to the N | Brownfields Site |
| 219 | PARKING GARAGE | 267-273 W87 ST | 2422 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 36 | TRANSFORMER VAULT #5535 | 210 W 89TH ST | 2441 feet to the N | Closed Status Tank Failure |
| 37 | APT BUILDING | 210 WEST 89TH ST | 2441 feet to the N | Closed Status Tank Failure |
| 221 | 210 WEST 89TH ST VAULT #5535 | 210 WEST 89 TH ST | 2441 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 222 | MANHOLE 5535 | 210 WEST 89TH ST | 2441 feet to the N | Closed Status Spill (Unk/Other Cause) |

| | | | | |
|-----|--------------------------------|-------------------------------|----------------------|---|
| 229 | AMSTERDAM AV | BET W.89TH & W.90TH ST | 2528 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 231 | SPILL NUMBER 0202046 | 574 WEST END AV | 2570 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 439 | CON EDISON | 55 W 82 ST & COLUMBUS AVE | 406 feet to the NNE | Hazardous Waste Generator/Transporter |
| 442 | CON EDISON | 61 W 82 ST & COLUMBUS AVE | 407 feet to the NNE | Hazardous Waste Generator/Transporter |
| 270 | ROXY HARDWARE | 469 COLUMBUS AVE | 477 feet to the NNE | Closed Status Spill (Misc. Spill Cause) |
| 349 | N&R REALTY | 471 COLUMBUS AVENUE | 504 feet to the NNE | Petroleum Bulk Storage Site |
| 350 | N & R REALTY CO | 471 COLUMBUS AVE | 504 feet to the NNE | Petroleum Bulk Storage Site |
| 272 | 473 COLUMBUS AVE/81 & 82 | 473 COLUMBUS AVE/81 & 82 | 528 feet to the NNE | Closed Status Spill (Misc. Spill Cause) |
| 479 | CON EDISON | 98 W 83 ST | 572 feet to the NNE | Hazardous Waste Generator/Transporter |
| 482 | CON EDISON | NEC 83 ST & COLUMBUS AVE | 600 feet to the NNE | Hazardous Waste Generator/Transporter |
| 483 | CON EDISON | NWC 83 & COLUMBUS AV | 600 feet to the NNE | Hazardous Waste Generator/Transporter |
| 372 | 481 COLUMBUS ASSOC. | 73 W 83 ST | 640 feet to the NNE | Petroleum Bulk Storage Site |
| 125 | APARTMENT 1-1 | 101 WEST 85 STREET | 1231 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 126 | 101 WEST 85TH STREET | 101 WEST 85TH STREET | 1231 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 138 | COMMERICAL PROPERTY | 40 WEST 86TH ST | 1318 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 157 | SPILL NUMBER 0006084 | 64 W 87TH ST | 1613 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 173 | DRUM RUN | 119 WEST 87TH STREET | 1791 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 182 | IN APARTMENT | 114 W 88TH ST - APT 1 | 1890 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 3 | TUZ MANAGMENT | 595 COLUMBUS AVE | 2101 feet to the NNE | Active Tank Test Failure |
| 198 | 100 WEST 89TH ST/MANH | 100 WEST 89TH STREET | 2129 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 296 | WISE TOWERS | 49 WEST 89TH STREET | 2326 feet to the NNE | Closed Status Spill (Misc. Spill Cause) |
| 213 | 600 COLUMBUS | 600 COLUMBUS AVE. | 2362 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 225 | SERVICE BOX #15862 | W. 90TH ST./COLUMBUS AVE. | 2478 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 300 | 144 WEST 90TH STREET | 144 WEST 90TH STREET | 2508 feet to the NNE | Closed Status Spill (Misc. Spill Cause) |
| 441 | CON EDISON | 51 W 82 & COLUMBUS AVE | 407 feet to the NE | Hazardous Waste Generator/Transporter |
| 341 | 4182 TENANTS CORP | 41 WEST 82ND STREET | 434 feet to the NE | Petroleum Bulk Storage Site |
| 268 | 35 W. 82ND ST | 35 W. 82ND STREET | 436 feet to the NE | Closed Status Spill (Misc. Spill Cause) |
| 342 | RESIDENTIAL APARTMENT BUILDING | 35 WEST 82ND STREET | 441 feet to the NE | Petroleum Bulk Storage Site |
| 449 | CONSOLIDATED EDISON | 29 WEST 82 STREET | 464 feet to the NE | Hazardous Waste Generator/Transporter |
| 450 | CON EDISON | 29 W 82ND ST | 464 feet to the NE | Hazardous Waste Generator/Transporter |
| 456 | CONSOLIDATED EDISON | 23 W 82 ST | 496 feet to the NE | Hazardous Waste Generator/Transporter |
| 457 | CON EDISON | 21-23 W 82 ST | 496 feet to the NE | Hazardous Waste Generator/Transporter |
| 355 | 83RD STREET OWNERS CORP | 46 W 83 STREET | 541 feet to the NE | Petroleum Bulk Storage Site |
| 472 | CON EDISON | 34 W 83RD ST | 563 feet to the NE | Hazardous Waste Generator/Transporter |
| 277 | 34-36 WEST 83RD ST | 34-36 WEST 83RD ST | 568 feet to the NE | Closed Status Spill (Misc. Spill Cause) |
| 501 | CON EDISON | 18 W 83 ST & COLUMBUS | 649 feet to the NE | Hazardous Waste Generator/Transporter |
| 95 | DECLERCQ RESIDENCE | 48 WEST 84TH STREET | 784 feet to the NE | Closed Status Spill (Unk/Other Cause) |
| 14 | APARTMENT BUIDLING | 15 WEST 84TH STREET | 1003 feet to the NE | Closed Status Tank Failure |
| 116 | BROWNSTONE | 52 W. 85TH ST APT 1R | 1052 feet to the NE | Closed Status Spill (Unk/Other Cause) |
| 17 | 24 WEST 85TH ST/MANH | 24 WEST 85TH STREET | 1116 feet to the NE | Closed Status Tank Failure |
| 137 | CENTRLA PARK WEST&85TH ST | CENTRAL PARK WEST&85TH ST | 1309 feet to the NE | Closed Status Spill (Unk/Other Cause) |
| 139 | 28-30 W. 86TH ST. | 28-30 W. 86TH ST. | 1326 feet to the NE | Closed Status Spill (Unk/Other Cause) |
| 287 | 10 WEST 86TH ST | 10 WEST 86TH ST | 1376 feet to the NE | Closed Status Spill (Misc. Spill Cause) |
| 5 | 86 STREET TRANSVERSE DPR -DDC | 86TH STREET & TRANSVERSE ROAD | 1560 feet to the NE | Active Haz Spill (Unknown/Other Cause) |
| 147 | 86 STREET TRANSVERSE DPR -DDC | 86TH STREET & TRANSVERSE ROAD | 1560 feet to the NE | Closed Status Spill (Unk/Other Cause) |
| 30 | SPILL NUMBER 9913986 | 37 WEST 87TH ST | 1775 feet to the NE | Closed Status Tank Failure |
| 174 | BUILD ING | 23 WEST 87TH STREET | 1793 feet to the NE | Closed Status Spill (Unk/Other Cause) |
| 32 | TZC | 45 WEST 88TH STREET | 2036 feet to the NE | Closed Status Tank Failure |
| 297 | APARTMENT BUILDING | 19 WEST 89TH STREET | 2332 feet to the NE | Closed Status Spill (Misc. Spill Cause) |
| 220 | SPILL NUMBER 9912480 | 10 WEST 90TH ST | 2433 feet to the NE | Closed Status Spill (Unk/Other Cause) |
| 38 | SPILL NUMBER 9911904 | 2 WEST 90TH ST | 2449 feet to the NE | Closed Status Tank Failure |

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| 266 | APARTMENT COMPLEX | 11 WEST 81ST ST | 423 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 267 | ALLEYWAY – DRUM RUN | 11 W.81ST STREET | 423 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 340 | HAYDEN OWNERS CORP | 11 WEST 81ST STREET | 429 feet to the ENE | Petroleum Bulk Storage Site |
| 447 | CON EDISON | 16–18 W 82 ST & COLUMBUS AV | 461 feet to the ENE | Hazardous Waste Generator/Transporter |
| 84 | MANHOLE 57249 | 211 CENTRAL PARK WEST | 542 feet to the ENE | Closed Status Spill (Unk/Other Cause) |
| 274 | 8223 | 211 CENTRAL PARK WEST | 542 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 275 | 211 CENTRAL PARK W/MANH | 211 CENTRAL PARK WEST | 542 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 276 | CENTRAL PARK | 211 CENTRAL PARK WEST | 542 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 475 | CONSOLIDATED EDISON | 211 CENTRAL PARK WEST | 567 feet to the ENE | Hazardous Waste Generator/Transporter |
| 476 | CONSOLIDATED EDISON | V8223–CENTRAL PARK WEST | 567 feet to the ENE | Hazardous Waste Generator/Transporter |
| 477 | CONSOLIDATED EDISON | V8223–211 CENTRAL PARK W | 567 feet to the ENE | Hazardous Waste Generator/Transporter |
| 478 | CON EDISON | 219 CENTRAL PARK WEST | 567 feet to the ENE | Hazardous Waste Generator/Transporter |
| 359 | BERESFORD APARTMENTS | 211 CENTRAL PARK WEST | 575 feet to the ENE | Petroleum Bulk Storage Site |
| 504 | BERESFORD APARTMENTS | 211 CENTRAL PARK W | 594 feet to the ENE | Air Discharge Site |
| 278 | 7,9,11 WEST 82ND ST/MANH | 7,9,11 WEST 82ND STREET | 600 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 85 | 7 WEST 82ND ST/MANHATTAN | 7 WEST 82ND STREET | 617 feet to the ENE | Closed Status Spill (Unk/Other Cause) |
| 496 | CON EDISON | OPP 5 W 82 ST & COLUMBUS AV | 641 feet to the ENE | Hazardous Waste Generator/Transporter |
| 497 | CON EDISON | OPP 5 W 82ND ST & COLUMBUS AVE | 641 feet to the ENE | Hazardous Waste Generator/Transporter |
| 100 | W 83RD ST& CENT PARK WEST | W 83RD ST& CENT PARK WEST | 898 feet to the ENE | Closed Status Spill (Unk/Other Cause) |
| 463 | CON EDISON | FO 9–11 W 81 ST EO COLUMBUS AVE | 529 feet to the E | Hazardous Waste Generator/Transporter |
| 88 | AMERICAN MUSEUM HISTORY | 81ST ST & CENTRAL PK WEST | 675 feet to the E | Closed Status Spill (Unk/Other Cause) |
| 89 | 79TH ST TRANSVERSE | 79TH ST TRANSVERSE | 675 feet to the E | Closed Status Spill (Unk/Other Cause) |
| 90 | SPILL NUMBER 0101436 | CENTRAL PARK W/ W 81ST ST | 675 feet to the E | Closed Status Spill (Unk/Other Cause) |
| 273 | WEST 79TH STREET AND | CENTRAL PARK | 529 feet to the ESE | Closed Status Spill (Misc. Spill Cause) |
| 468 | CONSOLIDATED EDISON | 78TH & 8TH AVE | 548 feet to the SE | Hazardous Waste Generator/Transporter |
| 91 | SPILL NUMBER 9914163 | W 77TH ST/CENT PARK W | 676 feet to the SSE | Closed Status Spill (Unk/Other Cause) |
| 170 | CENTRAL PARK/THE LAKE | 59TH ST/110TH ST | 1781 feet to the SSE | Closed Status Spill (Unk/Other Cause) |
| 171 | CENTRAL PARK LAKE | WEST 79TH STREET+CENTRAL | 1781 feet to the SSE | Closed Status Spill (Unk/Other Cause) |
| 172 | CENTRAL PARK LAKE,WEST | CENTRAL PARK LAKE,WEST | 1781 feet to the SSE | Closed Status Spill (Unk/Other Cause) |
| 291 | CENTRAL PARK LAKE | CENTRAL PARK LAKE | 1781 feet to the SSE | Closed Status Spill (Misc. Spill Cause) |
| 337 | 20 W 77 ST | 20 WEST 77TH STREET | 409 feet to the S | Petroleum Bulk Storage Site |
| 448 | CONSOLIDATED EDISON – SERV BOX 13735 | F/O 26–28 W 76TH ST 7 COLUMBUS AVE | 463 feet to the S | Hazardous Waste Generator/Transporter |
| 346 | 6–16 WEST 77 STREET | 6 WEST 77TH ST | 500 feet to the S | Petroleum Bulk Storage Site |
| 459 | CON EDISON SERVICE BOX 13735 | 26–28 W 76TH ST E OF COLUMBUS AVE | 516 feet to the S | Hazardous Waste Generator/Transporter |
| 460 | 6–16 WEST 77TH STREET CORP | 6–16 W 77TH ST | 518 feet to the S | Hazardous Waste Generator/Transporter |
| 461 | CON EDISON | F/O 20TH W 76TH ST | 524 feet to the S | Hazardous Waste Generator/Transporter |
| 462 | CON EDISON | 26 W 76 ST | 526 feet to the S | Hazardous Waste Generator/Transporter |
| 364 | 14–16 WEST 76TH ST., LLC | 14–16 WEST 76TH STREET | 617 feet to the S | Petroleum Bulk Storage Site |
| 365 | CENTRAL PARK REALTY | 14 W 76 ST | 623 feet to the S | Petroleum Bulk Storage Site |
| 106 | MANHOLE 29424 | W 75TH ST & CEN PRK W | 965 feet to the S | Closed Status Spill (Unk/Other Cause) |
| 107 | 214656; WEST 75 ST AND CENTRAL PARK WEST | WEST 75 ST AND CENTRAL PARK WEST | 965 feet to the S | Closed Status Spill (Unk/Other Cause) |
| 112 | 214793; 141–150 CENTRAL PARK WEST | 141–150 CENTRAL PARK WEST | 1020 feet to the S | Closed Status Spill (Unk/Other Cause) |
| 16 | APT COMPLEX | 10 WEST 74TH ST | 1066 feet to the S | Closed Status Tank Failure |
| 22 | 135 CENTRAL PARK W | 135 CENTRAL PK W | 1175 feet to the S | Closed Status Tank Failure |
| 142 | MANHOLE 29419 | CENTRAL PK WEST | 1356 feet to the S | Closed Status Spill (Unk/Other Cause) |
| 144 | 1 W 72ND ST/DAKOTA | 1 W 72ND ST/DAKOTA | 1368 feet to the S | Closed Status Spill (Unk/Other Cause) |
| 181 | SPILL NUMBER 0011976 | W 71S ST / CENTRAL PARK W | 1856 feet to the S | Closed Status Spill (Unk/Other Cause) |

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| 263 | 60 WEST 76TH ST | 60 WEST 76TH ST | 402 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 345 | 57 WEST 75TH ST | 57 WEST 75TH ST | 499 feet to the SSW | Petroleum Bulk Storage Site |
| 464 | CON EDISON | 47-49 75TH ST & CPW | 531 feet to the SSW | Hazardous Waste Generator/Transporter |
| 467 | CONSOLIDATED EDISON | 43 WEST 75TH ST | 545 feet to the SSW | Hazardous Waste Generator/Transporter |
| 469 | CONSOLIDATED EDISON | 41 W 75TH ST | 551 feet to the SSW | Hazardous Waste Generator/Transporter |
| 9 | RESIDENCE | 29 WEST 75TH STREET | 598 feet to the SSW | Closed Status Tank Failure |
| 495 | CON EDISON | F/O 35 W 75 ST | 634 feet to the SSW | Hazardous Waste Generator/Transporter |
| 373 | HARTFORD REALTY COMPANY, LLC | 60 W 75 STREET | 659 feet to the SSW | Petroleum Bulk Storage Site |
| 94 | 55 W 74 ST | 55 W 74TH ST | 778 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 4 | CON ED | 33 W 74TH ST | 827 feet to the SSW | Active Haz Spill (Unknown/Other Cause) |
| 280 | 27 W 74TH STREET | 27 W 74TH STREET | 849 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 282 | 54 WEST 74TH ST | 54 WEST 74TH ST | 930 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 283 | 54 WEST 74TH STREET CONDO | 54 WEST 74TH STREET | 930 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 284 | RESIDENT | 54 WEST 74TH STREET | 930 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 102 | BROKEN DUCT FOUND IN EXCAVATION | 52 WEST 74TH STREET | 939 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 105 | VACANT BUILDING | 36 WEST 74TH ST. | 964 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 115 | HOUSE | 67 WEST 73RD ST | 1040 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 120 | NORTHEAST CORNER | COLUMBUS AVE/EAST 73RD ST | 1126 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 24 | 27 WEST 72ND ST/MANH | 27 WEST 72ND STREET | 1299 feet to the SSW | Closed Status Tank Failure |
| 135 | VAULT #V3716 | 27 WEST 72ND ST | 1299 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 26 | BANCROFT OWNERS INC | 40 W 72ND STREET | 1507 feet to the SSW | Closed Status Tank Failure |
| 58 | BASEMENT | 12 WEST 72ND ST | 1555 feet to the SSW | Closed Status Tank Test Failure |
| 160 | 15 GAL ANTIFREEZE IN MANHOLE #12879 | 17 WEST 71 STREET | 1668 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 161 | SB12896 | 17 WEST 71 ST | 1668 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 184 | 101 CENTRAL PARK WEST | 101 CENTRAL PARK WEST | 1910 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 193 | COMMERCIAL PROPERTY/APT BLDG | 30 WEST 70TH ST | 2045 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 201 | 91 CENTRAL PARK WEST | 11 WEST 69TH STREET | 2188 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 294 | STREET | WEST 69TH ST/COLUMBUS AV | 2216 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 214 | ROADWAY | 2 WEST 69TH ST | 2382 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 217 | SEVEN GALLONS OF HYDRAULIC FLUID | 53 WEST 68 STREET | 2401 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 230 | 74 WEST 68 ST | 74 W 68TH ST | 2550 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 232 | IN ROADWAY | 20 W. 68TH ST | 2598 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 443 | CON EDISON | F/O 339 COLUMBUS AVE | 416 feet to the SW | Hazardous Waste Generator/Transporter |
| 339 | 100 WEST 76TH STREET | 100 WEST 76TH STREET | 423 feet to the SW | Petroleum Bulk Storage Site |
| 444 | CON EDISON | FO 338 COLUMBUS AVE NO 75 ST | 423 feet to the SW | Hazardous Waste Generator/Transporter |
| 445 | CON EDISON | OPP SIDE 116 W 76 ST | 445 feet to the SW | Hazardous Waste Generator/Transporter |
| 82 | BET. COLUMBUS/ AMSTERDAM | 118 W. 76TH ST. | 520 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 352 | 120 WEST 76TH STREET | 120 WEST 76TH STREET | 530 feet to the SW | Petroleum Bulk Storage Site |
| 353 | WEST SIDE INST SYNG | 120 W 76 ST | 530 feet to the SW | Petroleum Bulk Storage Site |
| 83 | SPILL NUMBER 0313954 | 120 WEST 76TH ST. | 533 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 357 | CHA REALTY LLC (JOSEPH CHADI) | 101 WEST 75 ST. | 572 feet to the SW | Petroleum Bulk Storage Site |
| 358 | JOSEPH CHADI | 101 W 75 ST | 572 feet to the SW | Petroleum Bulk Storage Site |
| 279 | 8 OZ IN MANHOLE # 30582 | WEST 75 STREET & COLUMBUS AVE | 600 feet to the SW | Closed Status Spill (Misc. Spill Cause) |
| 484 | CON EDISON | W 75TH ST & COLUMBUS AVE | 600 feet to the SW | Hazardous Waste Generator/Transporter |
| 485 | CON EDISON | W 75TH ST & COLUMBUS AVE | 600 feet to the SW | Hazardous Waste Generator/Transporter |
| 486 | CONSOLIDATED EDISON | W 75TH STREET AND COLUMBUS AVE | 600 feet to the SW | Hazardous Waste Generator/Transporter |
| 487 | CONSOLIDATED EDISON | S/W/C W 75 ST & COLUMBUS AVE | 600 feet to the SW | Hazardous Waste Generator/Transporter |
| 488 | CON EDISON | SWC W 75 & COLUMBUS AVE | 600 feet to the SW | Hazardous Waste Generator/Transporter |
| 489 | CON EDISON | S/W/C W 75 ST & COLUMBUS AVVE | 600 feet to the SW | Hazardous Waste Generator/Transporter |
| 500 | CONSOLIDATED EDISON | FRONT OF 104 WEST 75 STREET | 647 feet to the SW | Hazardous Waste Generator/Transporter |
| 503 | CONSOLIDATED EDISON | SB 13554 F/O 106 W 75TH ST | 654 feet to the SW | Hazardous Waste Generator/Transporter |

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| 10 | 102 WEST 75TH ST | 102 WEST 75TH ST | 699 feet to the SW | Closed Status Tank Failure |
| 11 | 100 WEST 75TH STREET | 100 WEST 75TH STREET | 699 feet to the SW | Closed Status Tank Failure |
| 98 | 215875; 136 W 75 STREET | 136 W 75 STREET | 862 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 103 | 135 WEST 74TH ST | 135 WEST 74TH ST | 947 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 54 | APRT | 141 WEST 73RD STREET | 1182 feet to the SW | Closed Status Tank Test Failure |
| 127 | IN FRONT OF ON WALK | 157 WEST 73RD ST | 1232 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 128 | SPILL NUMBER 0209565 | 126 W 73RD ST | 1258 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 57 | APT BLD TTF | 101 WEST 72ND ST | 1311 feet to the SW | Closed Status Tank Test Failure |
| 141 | 121 WEST 72ND STREET | 121 W 72ND ST | 1341 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 288 | 160 WEST 73RD STREET | 160 WEST 73RD STREET | 1406 feet to the SW | Closed Status Spill (Misc. Spill Cause) |
| 155 | SPILL NUMBER 9714534 | 152 WEST 72ND ST – APT 5B | 1611 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 156 | 148 WEST 72ND ST | 148 WEST 72ND ST | 1611 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 6 | BASEMENT | 166 W 72ND ST | 1693 feet to the SW | Active Haz Spill (Unknown/Other Cause) |
| 63 | APARTMENT BUILDING – TTF | 166 WEST 72ND STREET | 1693 feet to the SW | Closed Status Tank Test Failure |
| 166 | SPILL NUMBER 0311725 | 159 WEST 71ST ST/BTWN COL | 1745 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 185 | 6 BLOCK AREA | W 71ST / BROADWAY | 1915 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 194 | MANHOLE TM-1549 | IFO 154 W70TH ST | 2067 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 196 | THE ORMANDE | 2030 BROADWAY | 2116 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 299 | ROADSIDE | 2000 BROADWAY | 2413 feet to the SW | Closed Status Spill (Misc. Spill Cause) |
| 301 | VAULTS V9112/V9328/V9500/SB12447 | WEST 68TH ST AND BROADWAY | 2532 feet to the SW | Closed Status Spill (Misc. Spill Cause) |
| 302 | ON SOUTH SIDE OF WEST 68 STREET | BETWEEN AMSTERDAM AVE AND | 2582 feet to the SW | Closed Status Spill (Misc. Spill Cause) |
| 41 | 1995 BROADWAY | 1995 BROADWAY | 2625 feet to the SW | Closed Status Tank Failure |
| 233 | 1995 BROADWAY | 1995 BROADWAY | 2625 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 264 | 129 WEST 77TH STREET | 129 WEST 77TH STREET | 409 feet to the WSW | Closed Status Spill (Misc. Spill Cause) |
| 343 | 125 W 76 ST | 125 WEST 76TH STREET | 447 feet to the WSW | Petroleum Bulk Storage Site |
| 481 | CON EDISON | 148 WEST 77TH STREET | 592 feet to the WSW | Hazardous Waste Generator/Transporter |
| 92 | BASMENT | 148 W 76TH ST | 686 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 93 | 163 WEST 76TH ST/MANH | 163 WEST 76TH STREET | 757 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 99 | 140 W 75TH ST | 140 W 75TH ST | 889 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 110 | MANHOLE 13704 | 76TH/AMSTERDAM | 1007 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 111 | MANHOLE 13705 | 76TH ST/AMSTERDAM | 1007 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 132 | STREET | AMSTERDAM AVE AT WEST 74T | 1283 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 2 | TTF | 215 WEST 75TH ST | 1299 feet to the WSW | Active Tank Test Failure |
| 25 | 2130 BROADWAY/MANH | 2130 BROADWAY | 1343 feet to the WSW | Closed Status Tank Failure |
| 146 | WEST 74TH ST/BROADWAY | WEST 74TH ST/BROADWAY | 1493 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 289 | WEST 74TH ST/ BRODWAY | WEST 74TH ST/ BROADWAY | 1493 feet to the WSW | Closed Status Spill (Misc. Spill Cause) |
| 158 | MANHOLE #27450 | 73RD ST/BROADWAY | 1623 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 27 | 2109 BROADWAY | 2109 BROADWAY | 1700 feet to the WSW | Closed Status Tank Failure |
| 28 | 2109 BROADWAY | 2109 BROADWAY | 1700 feet to the WSW | Closed Status Tank Failure |
| 168 | SPILL NUMBER 9712910 | WEST 72ND ST & BROADWAY | 1778 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 183 | 2071 BROADWAY | 2071 BROADWAY | 1902 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 195 | VAULT #V1826 | WEST 72ND STREET | 2101 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 69 | RESIDENTS TTF | 277 WEST END AVE | 2299 feet to the WSW | Closed Status Tank Test Failure |
| 211 | 218615; W END AVE AND 72ND ST | W END AVE AND 72ND ST | 2326 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 35 | OCONNOR HOME | 264 WEST 71 STREET | 2439 feet to the WSW | Closed Status Tank Failure |
| 224 | APARTMENT BUIDLING | 255 WEST END AVE | 2475 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 39 | 240 WEST END AVE | 240 WEST END AVE | 2498 feet to the WSW | Closed Status Tank Failure |
| 40 | PRIVATE RESIDENCE | 240 WEST END AVE | 2498 feet to the WSW | Closed Status Tank Failure |
| 440 | CON EDISON | 127 W 78TH ST | 407 feet to the W | Hazardous Waste Generator/Transporter |
| 269 | BASEMENT | 131 WEST 78TH ST | 444 feet to the W | Closed Status Spill (Misc. Spill Cause) |
| 452 | CONSOLIDATED EDISON | 135 W. 78 ST | 478 feet to the W | Hazardous Waste Generator/Transporter |

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| 453 | CON EDISON | FO 135 78 ST EO AMSTERDAM AVE | 481 feet to the W | Hazardous Waste Generator/Transporter |
| 455 | CONSOLIDATED EDISON | W 78 ST BETW COLUMBUS/AMSTERDAM | 489 feet to the W | Hazardous Waste Generator/Transporter |
| 466 | CONSOLIDATED EDISON | OPP 141 W. 78ST | 538 feet to the W | Hazardous Waste Generator/Transporter |
| 473 | CON EDISON | 143-144 W 78 ST | 563 feet to the W | Hazardous Waste Generator/Transporter |
| 474 | CON EDISON | 143-144 W 78 ST | 563 feet to the W | Hazardous Waste Generator/Transporter |
| 480 | CON EDISON | 147-145 W 78 ST | 587 feet to the W | Hazardous Waste Generator/Transporter |
| 491 | NYC BOARD OF EDUCATION | 160 WEST 78TH STREET | 622 feet to the W | Hazardous Waste Generator/Transporter |
| 494 | CON EDISON | 151 W 78 ST | 627 feet to the W | Hazardous Waste Generator/Transporter |
| 369 | 151 W 78 ST | 151 WEST 78TH STREET | 630 feet to the W | Petroleum Bulk Storage Site |
| 370 | P.S. 87 - MANHATTAN (M087) | 160 WEST 78TH STREET | 638 feet to the W | Petroleum Bulk Storage Site |
| 498 | CON EDISON | FO 152 W 78 ST | 646 feet to the W | Hazardous Waste Generator/Transporter |
| 499 | CON EDISON | FO 148 W 78 ST | 646 feet to the W | Hazardous Waste Generator/Transporter |
| 87 | SPILL NUMBER 0107348 | 160 WEST 78TH ST | 667 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 101 | MICHAEL DONOVAN | 175 WEST 76TH ST | 901 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 281 | BASEMENT | 175 W 76TH ST | 901 feet to the W | Closed Status Spill (Misc. Spill Cause) |
| 50 | COMMERCIAL BUILDING | 200 W. 78TH ST | 1021 feet to the W | Closed Status Tank Test Failure |
| 51 | APARTMENT BUILDING | 202 WEST 78TH ST | 1055 feet to the W | Closed Status Tank Test Failure |
| 15 | 201 WEST 77TH STREET | 201 WEST 77TH STREET | 1065 feet to the W | Closed Status Tank Failure |
| 119 | PARKING GARAGE | 348-354 AMSTERDAM AVE | 1097 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 18 | EXXONMOBIL | 332 AMSTERDAM AVENUE | 1138 feet to the W | Closed Status Tank Failure |
| 19 | EXXONMOBIL | 332 AMSTERDAM AVENUE | 1138 feet to the W | Closed Status Tank Failure |
| 20 | EXXONMOBIL | 332 AMSTERDAM AVENUE | 1138 feet to the W | Closed Status Tank Failure |
| 21 | EXXONMOBIL | 332 AMSTERDAM AVENUE | 1138 feet to the W | Closed Status Tank Failure |
| 53 | EXXON CORP | 332 AMSTERDAM AVENUE | 1138 feet to the W | Closed Status Tank Test Failure |
| 121 | 200 WEST 76TH ST | 332 AMSTERDAM AVENUE | 1138 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 122 | HERTZ RENT A CAR | 210 W. 77TH ST. | 1176 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 55 | NATIONAL CAR RENTAL SITE | 219 WEST 77TH STREET | 1228 feet to the W | Closed Status Tank Test Failure |
| 123 | CAR RENTAL | 221-223 W77TH ST | 1228 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 124 | NATIONAL CAR RENTAL | 219 WEST 77TH STREET | 1228 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 56 | AVIS RENT A CAR | 216 W 76TH ST | 1275 feet to the W | Closed Status Tank Test Failure |
| 129 | AVIS RENT A CAR | 216 WEST 76TH STREET | 1275 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 130 | AVIS | 216 WEST 76TH ST | 1275 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 131 | COMMERCIAL BUILDING | 216 WEST 76TH STREET | 1275 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 23 | OPERA APARTMENTS | 2166 BROADWAY | 1289 feet to the W | Closed Status Tank Failure |
| 133 | THE OPERA OWNERS INC | 2166 BROADWAY | 1289 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 134 | OPERA APARTMENTS | 2166 BROADWAY | 1289 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 136 | MANHOLE #59227 | 215 W.76TH ST | 1299 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 140 | AVIS RENT A CAR | 219 W. 76TH STREET | 1340 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 148 | SERVICE BOX 13680 | 241 WEST 76 ST | 1562 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 149 | APARTMENTS | 235 WEST 76TH ST | 1562 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 150 | CONDO 235 W 75TH ST | 235 W.75TH ST | 1573 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 151 | 235 W. 75TH ST | 235 WEST 75TH ST | 1573 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 152 | SPILL NUMBER 0301510 | 2159 BROADWAY | 1573 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 59 | BELLECLAIRE HOTEL | 250 WEST 77TH STREET | 1577 feet to the W | Closed Status Tank Test Failure |
| 60 | BELLECLAIRE HOTEL | 250 WEST 77TH ST | 1577 feet to the W | Closed Status Tank Test Failure |
| 153 | APARTMENT COMPLEX | 250 W 77TH ST | 1577 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 61 | TTF | 233 WEST 77TH STREET | 1586 feet to the W | Closed Status Tank Test Failure |
| 62 | CONDO 241 W 75TH ST | 241 W.75TH ST | 1647 feet to the W | Closed Status Tank Test Failure |
| 159 | APARTMENT | 241 WEST 75TH ST | 1647 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 29 | CONDO 245 W.75TH ST | 245 W.75TH ST | 1705 feet to the W | Closed Status Tank Failure |
| 163 | 245 WEST 75TH STREET/ NEW | 245 WEST 75TH STREET | 1705 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 169 | APT BLDG | 342 WEST END AVE | 1778 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 179 | MANHOLE 61728 | WEST END AV/W 77TH ST | 1851 feet to the W | Closed Status Spill (Unk/Other Cause) |

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|-----|--------------------------------------|---------------------------------|----------------------|---|
| 180 | MANHOLE 61728 | WESTEND AVE/W 77TH ST | 1851 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 187 | 355 WEST END AVE | 355 WEST END AVE | 1932 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 205 | CHRISTIAN COMMUNITY | 309 W.74TH ST | 2239 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 212 | COMMERCIAL BUILDING | 11 RIVERSIDE DRIVE | 2329 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 223 | SPILL NUMBER 0101768 | 20 RIVERSIDE DR | 2455 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 265 | APT BUILDING | 127 WEST 79 ST | 414 feet to the WNW | Closed Status Spill (Misc. Spill Cause) |
| 344 | 79TH ST. RESIDENCE CORP. | 135 WEST 79TH STREET | 480 feet to the WNW | Petroleum Bulk Storage Site |
| 271 | APARTMENT BUILDING | 135 WEST 79TH ST | 486 feet to the WNW | Closed Status Spill (Misc. Spill Cause) |
| 351 | APT BUILDING | 140 W 79TH ST | 511 feet to the WNW | Petroleum Bulk Storage Site |
| 458 | CON EDISON | FO 140 N 79 ST EO AMSTERDAM AVE | 514 feet to the WNW | Hazardous Waste Generator/Transporter |
| 465 | CON EDISON | FO 145 W 79 ST & AMSTERDAM AVE | 534 feet to the WNW | Hazardous Waste Generator/Transporter |
| 354 | 145 W. 79TH STREET OWNERS CORP. | 145 W. 79TH STREET | 537 feet to the WNW | Petroleum Bulk Storage Site |
| 356 | 146 WEST 79 ST | 146 WEST 79TH STREET | 566 feet to the WNW | Petroleum Bulk Storage Site |
| 360 | 147 W 79TH ST | 147 WEST 79TH STREET | 598 feet to the WNW | Petroleum Bulk Storage Site |
| 366 | 150 WEST 79 CORP | 150 WEST 79TH STREET | 625 feet to the WNW | Petroleum Bulk Storage Site |
| 492 | CON EDISON | FO 150 W 79 ST & AMSTERDAM AVE | 626 feet to the WNW | Hazardous Waste Generator/Transporter |
| 493 | CON EDISON | FO 150 W 79 ST & AMSTERDAM AVE | 626 feet to the WNW | Hazardous Waste Generator/Transporter |
| 48 | ABOVE GROUND TANK TTF | 172 WEST 79TH | 865 feet to the WNW | Closed Status Tank Test Failure |
| 117 | VAULT 9190/8884/9463 | 200 WEST 79TH ST | 1064 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 286 | 200 WEST 79TH ST/MANH | 200 WEST 79TH STREET | 1064 feet to the WNW | Closed Status Spill (Misc. Spill Cause) |
| 143 | 2222 BROADWAY/FILENES BASEMENT | 2222 BROADWAY | 1366 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 145 | MAN HOLE #27479 | WEST 78 STREET AND BROADWAY | 1473 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 164 | APTHORP BUILDING | 252 WEST 79TH ST | 1705 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 167 | SPILL NUMBER 9908618 | 400 WEST END AVE | 1755 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 177 | W79TH ST / WEST END AVE | W79TH ST / WEST END AVE | 1851 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 178 | WEST END AV&W 79TH ST | WEST END AV&W 79TH ST | 1851 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 188 | 389 WEST END AVENUE | 389 WEST END AVENUE | 1941 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 190 | 305 – IN BROOKLYN OR MANHATTAN? | 305 W 79TH ST | 1989 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 191 | APT BLD. | 365 WEST END AVE | 1991 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 67 | RESIDENTS | 307 WEST 79 STRET | 2063 feet to the WNW | Closed Status Tank Test Failure |
| 197 | 319 WEST 77TH STREET. | 319 WEST 77TH STREET. | 2121 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 33 | 52 RIVERSIDE DRIVE | 52 RIVERSIDE DRIVE | 2291 feet to the WNW | Closed Status Tank Failure |
| 68 | 52 RIVERSIDE DR | 52 RIVERSIDE DR | 2291 feet to the WNW | Closed Status Tank Test Failure |
| 208 | SPILL NUMBER 9814552 | RIVERSIDE DR / W 79TH ST | 2312 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 298 | TRANSFORMER | W 78TH ST & RIVERSIDE DR | 2367 feet to the WNW | Closed Status Spill (Misc. Spill Cause) |
| 215 | RIVERSIDE DR FROM 76TH | TO 79TH | 2389 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 336 | CLIFTON HOUSE OWNERS CORP. | 127 WEST 79TH STREET | 400 feet to the NW | Petroleum Bulk Storage Site |
| 454 | CON EDISON | 130 W 80TH ST | 483 feet to the NW | Hazardous Waste Generator/Transporter |
| 470 | CON EDISON | 140 W 80TH ST | 558 feet to the NW | Hazardous Waste Generator/Transporter |
| 471 | CON ED | 140 W 80TH ST | 558 feet to the NW | Hazardous Waste Generator/Transporter |
| 490 | CONSOLIDATED EDISON | 146 WEST 80 STREET | 617 feet to the NW | Hazardous Waste Generator/Transporter |
| 104 | MANHOLE #25889 | AMSTERDAM AV & 80TH ST | 949 feet to the NW | Closed Status Spill (Unk/Other Cause) |
| 113 | 215460; 424–246 AMSTERDAM AVENUE | 424–246 AMSTERDAM AVENUE | 1037 feet to the NW | Closed Status Spill (Unk/Other Cause) |
| 114 | COMMERCIAL/DWELLING | 424 AMSTERDAM AVE | 1038 feet to the NW | Closed Status Spill (Unk/Other Cause) |
| 186 | SPILL NUMBER 0209914 | 425 WEST END AVE | 1927 feet to the NW | Closed Status Spill (Unk/Other Cause) |
| 189 | MANHOLE 62564 | WEST END AVE / WEST 83RD | 1946 feet to the NW | Closed Status Spill (Unk/Other Cause) |
| 31 | APARTMENTS | 441 WEST END AV (80/81) | 1971 feet to the NW | Closed Status Tank Failure |
| 65 | TTF – APARTMENT COMPLEX | 465 WEST END AVENUE | 2005 feet to the NW | Closed Status Tank Test Failure |
| 66 | ABOVE GROUND | 473 WEST END AVE | 2033 feet to the NW | Closed Status Tank Test Failure |
| 202 | 216301; 321 W 82 ST AND RIVERSIDE DR | 321 W 82 ST AND RIVERSIDE DR | 2191 feet to the NW | Closed Status Spill (Unk/Other Cause) |
| 204 | 98 RIVERSIDE DRIVE | 98 RIVERSIDE DRIVE | 2204 feet to the NW | Closed Status Spill (Unk/Other Cause) |

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| 216 | RAFFERTY RES | 336 WEST 84TH ST | 2400 feet to the NW | Closed Status Spill (Unk/Other Cause) |
| 446 | CON EDISON | 132 W 81ST ST | 456 feet to the NNW | Hazardous Waste Generator/Transporter |
| 362 | 155 WEST 81 STREET ASSOCIATES | 155 WEST 81 STREET | 610 feet to the NNW | Petroleum Bulk Storage Site |
| 363 | 158 WEST 81ST STREET | 158 WEST 81ST STREET | 614 feet to the NNW | Petroleum Bulk Storage Site |
| 86 | TOWNHOUSE | 144 WEST 82ND ST | 621 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 371 | 146 W 82 ST OWNERS CORP | 146 WEST 82ND STREET | 639 feet to the NNW | Petroleum Bulk Storage Site |
| 12 | APARTMENT | 150 WEST 82ND STREET | 702 feet to the NNW | Closed Status Tank Failure |
| 46 | 150 WEST 82 STREET REALTY ASSOC, LLC | 150 WEST 82ND ST | 702 feet to the NNW | Closed Status Tank Test Failure |
| 13 | 139 WEST 82ND ST/MANH | 139 WEST 82ND STREET | 772 feet to the NNW | Closed Status Tank Failure |
| 96 | MULTI-DWELLING RESIDENCE | 171 W. 81TH ST | 814 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 285 | VAULT #6342 | IFO 453 AMSTERDAM AVE | 959 feet to the NNW | Closed Status Spill (Misc. Spill Cause) |
| 108 | MANHOLE #2119 | 475 AMSTERDAM AVE | 992 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 109 | LOSS TO ROADWAY | 82ND AND AMSTERDAM | 1004 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 118 | 200 W. 82ND ST | 200 W. 82ND ST | 1081 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 154 | CO-OPERATIVE | 212 W.85TH ST | 1609 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 175 | MANHOLE 27538 | W 85TH ST/BROADWAY | 1827 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 176 | 2350 BROADWAY | 2350 BROADWAY | 1830 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 192 | MANHOLE # 49901 | W 84 ST / WEST END AVE | 2039 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 292 | FEEDER M51 | WEST END AVE / 84 STREET | 2039 feet to the NNW | Closed Status Spill (Misc. Spill Cause) |
| 199 | MANHOLE 61729 | WEST END AV / W 85TH ST | 2163 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 200 | MAN HOLE #61729 | WEST END AV & W 85TH ST | 2163 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 293 | APARTMENT BUILDING | 505 WEST END AVE | 2178 feet to the NNW | Closed Status Spill (Misc. Spill Cause) |
| 206 | MAN HOLE 61729 | WEST END AVE AND 85 AND 86 ST | 2242 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 207 | MANHOLE 61729 | WEST END AV/BET 85 & 86 | 2242 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 209 | 218418; W 86 ST AND WEST END AVE | W 86 ST AND WEST END AVE | 2324 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 210 | VAULT 5837 | WEST 86TH ST AND WEST END AVE | 2324 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 295 | FEEDER M52 | WEST END AVE / 86TH ST | 2324 feet to the NNW | Closed Status Spill (Misc. Spill Cause) |
| 218 | IN FRONT 545 WEST END AVE | FRONT 545 WEST END AVE | 2405 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 70 | 310 WEST 86TH ST | 310- 320 WEST 86TH STREET | 2506 feet to the NNW | Closed Status Tank Test Failure |
| 226 | IFO | 562 WEST END AV | 2514 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 227 | 562 WEST END AVE | 562 WEST END AVE | 2514 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 228 | EXCAVATION SITE | 562 WESTEND AVE | 2514 feet to the NNW | Closed Status Spill (Unk/Other Cause) |

Identified Toxic Sites by Category

American Museum of Natural History
New York, NY 10024

* Compass directions can vary substantially for sites located very close to the subject property address.

| Brownfields Sites -- Total Sites – 1 | | | Database searched at 1/2 MILE – ASTM required search distance: 1/2 Mile | |
|---|-------------|-------------------------------|--|----------------------|
| MAP ID | FACILITY ID | FACILITY NAME | FACILITY STREET | DISTANCE & DIRECTION |
| 1 | C231096 | 267–273 WEST 87TH STREET | 267–273 WEST 87TH STREET | 2415 feet to the N |
| Active Tank Test Failures -- Total Sites – 2 | | | Database searched at 1/2 MILE – ASTM required search distance: 1/2 Mile | |
| MAP ID | FACILITY ID | FACILITY NAME | FACILITY STREET | DISTANCE & DIRECTION |
| 2 | 1409035 | TTF | 215 WEST 75TH ST | 1299 feet to the WSW |
| 3 | 0808308 | TUZ MANAGMENT | 595 COLUMBUS AVE | 2101 feet to the NNE |
| Active Haz Spills (Unknown Causes & Other Causes) -- Total Sites – 3 | | | Database searched at 1/2 MILE – ASTM required search distance: 1/2 Mile | |
| MAP ID | FACILITY ID | FACILITY NAME | FACILITY STREET | DISTANCE & DIRECTION |
| 4 | 1502443 | CON ED | 33 W 74TH ST | 827 feet to the SSW |
| 5 | 9502313 | 86 STREET TRANSVERSE DPR –DDC | 86TH STREET & TRANSVERSE ROAD | 1560 feet to the NE |
| 6 | 1506947 | BASEMENT | 166 W 72ND ST | 1693 feet to the SW |
| Closed Status Tank Failures -- Total Sites – 35 | | | Database searched at 1/2 MILE – ASTM required search distance: 1/2 Mile | |
| MAP ID | FACILITY ID | FACILITY NAME | FACILITY STREET | DISTANCE & DIRECTION |
| 7 | 0106772 | 53 W 76TH ST CONDOMINIUM | 53 W 76TH ST | 252 feet to the SSW |
| 8 | 9213467 | 123 W. 79TH STREET | 123 W. 79TH STREET | 315 feet to the WNW |
| 9 | 0600431 | RESIDENCE | 29 WEST 75TH STREET | 598 feet to the SSW |
| 10 | 9700871 | 102 WEST 75TH ST | 102 WEST 75TH ST | 699 feet to the SW |
| 11 | 9700866 | 100 WEST 75TH STREET | 100 WEST 75TH STREET | 699 feet to the SW |
| 12 | 0409941 | APARTMENT | 150 WEST 82ND STREET | 702 feet to the NNW |
| 13 | 9011428 | 139 WEST 82ND ST/MANH | 139 WEST 82ND STREET | 772 feet to the NNW |
| 14 | 0411524 | APARTMENT BUIDLING | 15 WEST 84TH STREET | 1003 feet to the NE |
| 15 | 9206055 | 201 WEST 77TH STREET | 201 WEST 77TH STREET | 1065 feet to the W |
| 16 | 0211222 | APT COMPLEX | 10 WEST 74TH ST | 1066 feet to the S |
| 17 | 9000527 | 24 WEST 85TH ST/MANH | 24 WEST 85TH STREET | 1116 feet to the NE |
| 18 | 9905193 | EXXONMOBIL | 332 AMSTERDAM AVENUE | 1138 feet to the W |
| 19 | 9904998 | EXXONMOBIL | 332 AMSTERDAM AVENUE | 1138 feet to the W |
| 20 | 9904995 | EXXONMOBIL | 332 AMSTERDAM AVENUE | 1138 feet to the W |
| 21 | 9904938 | EXXONMOBIL | 332 AMSTERDAM AVENUE | 1138 feet to the W |
| 22 | 9106670 | 135 CENTRAL PARK W | 135 CENTRAL PK W | 1175 feet to the S |
| 23 | 9009666 | OPERA APARTMENTS | 2166 BROADWAY | 1289 feet to the W |
| 24 | 9003522 | 27 WEST 72ND ST/MANH | 27 WEST 72ND STREET | 1299 feet to the SSW |
| 25 | 9009255 | 2130 BROADWAY/MANH | 2130 BROADWAY | 1343 feet to the WSW |
| 26 | 0406187 | BANCROFT OWNERS INC | 40 W 72ND STREET | 1507 feet to the SSW |
| 27 | 9802677 | 2109 BROADWAY | 2109 BROADWAY | 1700 feet to the WSW |
| 28 | 9209388 | 2109 BROADWAY | 2109 BROADWAY | 1700 feet to the WSW |
| 29 | 9108119 | CONDO 245 W.75TH ST | 245 W.75TH ST | 1705 feet to the W |
| 30 | 9913986 | SPILL NUMBER 9913986 | 37 WEST 87TH ST | 1775 feet to the NE |
| 31 | 9708740 | APARTMENTS | 441 WEST END AV (80/81) | 1971 feet to the NW |
| 32 | 0501353 | TZC | 45 WEST 88TH STREET | 2036 feet to the NE |
| 33 | 0009236 | 52 RIVERSIDE DRIVE | 52 RIVERSIDE DRIVE | 2291 feet to the WNW |
| 34 | 9007713 | 205 W 88TH ST/MANHATTAN | 205 WEST 88TH STREET | 2308 feet to the N |
| 35 | 0510860 | OCONNOR HOME | 264 WEST 71 STREET | 2439 feet to the WSW |
| 36 | 9812557 | TRANSFORMER VAULT #5535 | 210 W 89TH ST | 2441 feet to the N |
| 37 | 9810768 | APT BUILDING | 210 WEST 89TH ST | 2441 feet to the N |

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|----|---------|----------------------|------------------|----------------------|
| 38 | 9911904 | SPILL NUMBER 9911904 | 2 WEST 90TH ST | 2449 feet to the NE |
| 39 | 9515030 | 240 WEST END AVE | 240 WEST END AVE | 2498 feet to the WSW |
| 40 | 0412040 | PRIVATE RESIDENCE | 240 WEST END AVE | 2498 feet to the WSW |
| 41 | 0105791 | 1995 BROADWAY | 1995 BROADWAY | 2625 feet to the SW |

Closed Status Tank Test Failures --- Total Sites - 29

| MAP ID | FACILITY ID | FACILITY NAME |
|--------|-------------|--------------------------------------|
| 42 | 9903694 | BLDG |
| 43 | 0900502 | APT BLDG TTF |
| 44 | 9614401 | 20 PRECINCT NYPD -DDC |
| 45 | 9512346 | 20 PRECINCT NYPD -DDC |
| 46 | 0408295 | 150 WEST 82 STREET REALTY ASSOC, LLC |
| 47 | 9906666 | WEST 83RD ST REALITY CORP |
| 48 | 1216531 | ABOVE GROUND TANK TTF |
| 49 | 0902145 | APT BLDG |
| 50 | 1114440 | COMMERCIAL BUILDING |
| 51 | 1104682 | APARTMENT BUILDING |
| 52 | 0210864 | LEWIS BRANDEIS HIGH SCHOO |
| 53 | 9413181 | EXXON CORP |
| 54 | 0608521 | APRT |
| 55 | 0310460 | NATIONAL CAR RENTAL SITE |
| 56 | 0202743 | AVIS RENT A CAR |
| 57 | 1003932 | APT BLD TTF |
| 58 | 1312078 | BASEMENT |
| 59 | 0603441 | BELLECLAIRE HOTEL |
| 60 | 0509393 | BELLECLAIRE HOTEL |
| 61 | 1305857 | TTF |
| 62 | 9108242 | CONDO 241 W 75TH ST |
| 63 | 1215632 | APARTMENT BUILDING - TTF |
| 64 | 0611481 | 176 WEST 87TH STREET |
| 65 | 1403318 | TTF - APARTMENT COMPLEX |
| 66 | 1206692 | ABOVE GROUND |
| 67 | 1407368 | RESIDENTS |
| 68 | 9106109 | 52 RIVERSIDE DR |
| 69 | 1403485 | RESIDENTS TTF |
| 70 | 0701980 | 310 WEST 86TH ST |

Database searched at 1/2 MILE - ASTM required search distance: 1/2 Mile

| FACILITY STREET | DISTANCE & DIRECTION |
|---------------------------|----------------------|
| 102 WEST 79TH ST | 165 feet to the W* |
| 74 WEST 82ND ST | 253 feet to the NNE |
| 120 WEST 82ND STREET | 416 feet to the N |
| 120 WEST 82ND STREET | 416 feet to the N |
| 150 WEST 82ND ST | 702 feet to the NNW |
| 146 WEST 83RD ST | 792 feet to the N |
| 172 WEST 79TH | 865 feet to the WNW |
| 150 WEST 84TH ST | 1017 feet to the N |
| 200 W. 78TH ST | 1021 feet to the W |
| 202 WEST 78TH ST | 1055 feet to the W |
| 145 WEST 84TH STREET | 1132 feet to the N |
| 332 AMSTERDAM AVENUE | 1138 feet to the W |
| 141 WEST 73RD STREET | 1182 feet to the SW |
| 219 WEST 77TH STREET | 1228 feet to the W |
| 216 W 76TH ST | 1275 feet to the W |
| 101 WEST 72ND ST | 1311 feet to the SW |
| 12 WEST 72ND ST | 1555 feet to the SSW |
| 250 WEST 77TH STREET | 1577 feet to the W |
| 250 WEST 77TH ST | 1577 feet to the W |
| 233 WEST 77TH STREET | 1586 feet to the W |
| 241 W.75TH ST | 1647 feet to the W |
| 166 WEST 72ND STREET | 1693 feet to the SW |
| 176 WEST 87TH STREET | 1824 feet to the N |
| 465 WEST END AVENUE | 2005 feet to the NW |
| 473 WEST END AVE | 2033 feet to the NW |
| 307 WEST 79 STRET | 2063 feet to the WNW |
| 52 RIVERSIDE DR | 2291 feet to the WNW |
| 277 WEST END AVE | 2299 feet to the WSW |
| 310- 320 WEST 86TH STREET | 2506 feet to the NNW |

Closed Status Spills (Unknown Causes & Other Causes) --- Total Sites - 163 Database searched at 1/2 MILE - ASTM required search distance: 1/2 Mile

| MAP ID | FACILITY ID | FACILITY NAME | FACILITY STREET | DISTANCE & DIRECTION |
|--------|-------------|---------------------------------------|-----------------------------|----------------------|
| 71 | 0904587 | INTERSECTION | W. 79TH ST. & COLUMBUS AVE. | 50 feet to the W* |
| 72 | 0890009 | 204936; NE W 77 ST COLUMBUS AV | NE W 77 ST COLUMBUS AV | 79 feet to the SW* |
| 73 | 9612844 | 51 WEST 81ST ST | 51 WEST 81ST ST | 157 feet to the NNE* |
| 74 | 1510616 | ONE GALLON FUEL OIL SPILL ON CONCRETE | 101 WEST 78TH STREET | 164 feet to the WSW* |
| 75 | 0401022 | SERVICE BOX 4414 | 35 WEST 81ST ST | 172 feet to the NE* |
| 76 | 8905449 | 118 W 79TH ST/MANHATTAN | 118 WEST 79TH STREET | 262 feet to the W |
| 77 | 9614218 | GURBUZ RESIDENCE | 101 WEST 81ST ST APT 103 | 293 feet to the N |
| 78 | 0401041 | SPILL NUMBER 0401041 | 32 WEST 82ND ST | 327 feet to the NE |
| 79 | 0313030 | SPILL NUMBER 0313030 | 31 WEST 76TH STREET | 338 feet to the SSW |
| 80 | 0411433 | ENNISMORE APARTMENTS INC | 124 WEST 79TH ST | 362 feet to the W |
| 81 | 9512927 | 20 RECINCT NYPD -DDC | 120 WEST 82ND STREET | 416 feet to the N |
| 82 | 0511030 | BET. COLUMBUS/ AMSTERDAM | 118 W. 76TH ST. | 520 feet to the SW |
| 83 | 0313954 | SPILL NUMBER 0313954 | 120 WEST 76TH ST. | 533 feet to the SW |
| 84 | 0011975 | MANHOLE 57249 | 211 CENTRAL PARK WEST | 542 feet to the ENE |

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| 85 | 8903584 | 7 WEST 82ND ST/MANHATTAN | 7 WEST 82ND STREET | 617 feet to the ENE |
| 86 | 0011330 | TOWNHOUSE | 144 WEST 82ND ST | 621 feet to the NNW |
| 87 | 0107348 | SPILL NUMBER 0107348 | 160 WEST 78TH ST | 667 feet to the W |
| 88 | 9704989 | AMERICAN MUSEUM HISTORY | 81ST ST & CENTRAL PK WEST | 675 feet to the E |
| 89 | 9105945 | 79TH ST TRANSVERSE | 79TH ST TRANSVERSE | 675 feet to the E |
| 90 | 0101436 | SPILL NUMBER 0101436 | CENTRAL PARK W/ W 81ST ST | 675 feet to the E |
| 91 | 9914163 | SPILL NUMBER 9914163 | W 77TH ST/CENT PARK W | 676 feet to the SSE |
| 92 | 0708989 | BASMENT | 148 W 76TH ST | 686 feet to the WSW |
| 93 | 9002134 | 163 WEST 76TH ST/MANH | 163 WEST 76TH STREET | 757 feet to the WSW |
| 94 | 0805106 | 55 W 74 ST | 55 W 74TH ST | 778 feet to the SSW |
| 95 | 0607638 | DECLERCQ RESIDENCE | 48 WEST 84TH STREET | 784 feet to the NE |
| 96 | 0203985 | MULTI-DWELLING RESIDENCE | 171 W. 81TH ST | 814 feet to the NNW |
| 97 | 0611800 | PARKING GARAGE | 150 WEST 83RD STREET | 850 feet to the N |
| 98 | 0914061 | 215875; 136 W 75 STREET | 136 W 75 STREET | 862 feet to the SW |
| 99 | 9513823 | 140 W 75TH ST | 140 W 75TH ST | 889 feet to the WSW |
| 100 | 8907311 | W 83RD ST& CENT PARK WEST | W 83RD ST& CENT PARK WEST | 898 feet to the ENE |
| 101 | 1306921 | MICHAEL DONOVAN | 175 WEST 76TH ST | 901 feet to the W |
| 102 | 0801224 | BROKEN DUCT FOUND IN EXCAVATION | 52 WEST 74TH STREET | 939 feet to the SSW |
| 103 | 0102621 | 135 WEST 74TH ST | 135 WEST 74TH ST | 947 feet to the SW |
| 104 | 9910327 | MANHOLE #25889 | AMSTERDAM AV & 80TH ST | 949 feet to the NW |
| 105 | 0604606 | VACANT BUILDING | 36 WEST 74TH ST. | 964 feet to the SSW |
| 106 | 9808719 | MANHOLE 29424 | W 75TH ST & CEN PRK W | 965 feet to the S |
| 107 | 0814608 | 214656; WEST 75 ST AND CENTRAL PARK WEST | WEST 75 ST AND CENTRAL PARK WEST | 965 feet to the S |
| 108 | 0112175 | MANHOLE #2119 | 475 AMSTERDAM AVE | 992 feet to the NNW |
| 109 | 1400018 | LOSS TO ROADWAY | 82ND AND AMSTERDAM | 1004 feet to the NNW |
| 110 | 0009011 | MANHOLE 13704 | 76TH/AMSTERDAM | 1007 feet to the WSW |
| 111 | 0009010 | MANHOLE 13705 | 76TH ST/AMSTERDAM | 1007 feet to the WSW |
| 112 | 0814637 | 214793; 141-150 CENTRAL PARK WEST | 141-150 CENTRAL PARK WEST | 1020 feet to the S |
| 113 | 0914003 | 215460; 424-246 AMSTERDAM AVENUE | 424-246 AMSTERDAM AVENUE | 1037 feet to the NW |
| 114 | 0708720 | COMMERCIAL/DWELLING | 424 AMSTERDAM AVE | 1038 feet to the NW |
| 115 | 0713512 | HOUSE | 67 WEST 73RD ST | 1040 feet to the SSW |
| 116 | 9712452 | BROWNSTONE | 52 W. 85TH ST APT 1R | 1052 feet to the NE |
| 117 | 0908602 | VAULT 9190/8884/9463 | 200 WEST 79TH ST | 1064 feet to the WNW |
| 118 | 9706531 | 200 W. 82ND ST | 200 W. 82ND ST | 1081 feet to the NNW |
| 119 | 9808769 | PARKING GARAGE | 348-354 AMSTERDAM AVE | 1097 feet to the W |
| 120 | 9513873 | NORTHEAST CORNER | COLUMBUS AVE/EAST 73RD ST | 1126 feet to the SSW |
| 121 | 0102998 | 200 WEST 76TH ST | 332 AMSTERDAM AVENUE | 1138 feet to the W |
| 122 | 0706612 | HERTZ RENT A CAR | 210 W. 77TH ST. | 1176 feet to the W |
| 123 | 1505465 | CAR RENTAL | 221-223 W77TH ST | 1228 feet to the W |
| 124 | 0312284 | NATIONAL CAR RENTAL | 219 WEST 77TH STREET | 1228 feet to the W |
| 125 | 0607065 | APARTMENT 1-1 | 101 WEST 85 STREET | 1231 feet to the NNE |
| 126 | 0606644 | 101 WEST 85TH STREET | 101 WEST 85TH STREET | 1231 feet to the NNE |
| 127 | 0913358 | IN FRONT OF ON WALK | 157 WEST 73RD ST | 1232 feet to the SW |
| 128 | 0209565 | SPILL NUMBER 0209565 | 126 W 73RD ST | 1258 feet to the SW |
| 129 | 9512434 | AVIS RENT A CAR | 216 WEST 76TH STREET | 1275 feet to the W |
| 130 | 9512234 | AVIS | 216 WEST 76TH ST | 1275 feet to the W |
| 131 | 0711724 | COMMERCIAL BUILDING | 216 WEST 76TH STREET | 1275 feet to the W |
| 132 | 0608530 | STREET | AMSTERDAM AVE AT WEST 74T | 1283 feet to the WSW |
| 133 | 9708318 | THE OPERA OWNERS INC | 2166 BROADWAY | 1289 feet to the W |
| 134 | 0008420 | OPERA APARTMENTS | 2166 BROADWAY | 1289 feet to the W |
| 135 | 9811576 | VAULT #V3716 | 27 WEST 72ND ST | 1299 feet to the SSW |
| 136 | 9910860 | MANHOLE #59227 | 215 W.76TH ST | 1299 feet to the W |
| 137 | 9000590 | CENTRLA PARK WEST&85TH ST | CENTRAL PARK WEST&85TH ST | 1309 feet to the NE |

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| 138 | 1104766 | COMMERICAL PROPERTY | 40 WEST 86TH ST | 1318 feet to the NNE |
| 139 | 9214506 | 28-30 W. 86TH ST. | 28-30 W. 86TH ST. | 1326 feet to the NE |
| 140 | 9714319 | AVIS RENT A CAR | 219 W. 76TH STREET | 1340 feet to the W |
| 141 | 9906352 | 121 WEST 72ND STREET | 121 W 72ND ST | 1341 feet to the SW |
| 142 | 0006070 | MANHOLE 29419 | CENTRAL PK WEST | 1356 feet to the S |
| 143 | 9306013 | 2222 BROADWAY/FILENES BASEMENT | 2222 BROADWAY | 1366 feet to the WNW |
| 144 | 9112772 | 1 W 72ND ST/DAKOTA | 1 W 72ND ST/DAKOTA | 1368 feet to the S |
| 145 | 1500952 | MAN HOLE #27479 | WEST 78 STREET AND BROADWAY | 1473 feet to the WNW |
| 146 | 9509545 | WEST 74TH ST/BROADWAY | WEST 74TH ST/BROADWAY | 1493 feet to the WSW |
| 147 | 9600735 | 86 STREET TRANSVERSE DPR -DDC | 86TH STREET & TRANSVERSE ROAD | 1560 feet to the NE |
| 148 | 0903063 | SERVICE BOX 13680 | 241 WEST 76 ST | 1562 feet to the W |
| 149 | 0811809 | APARTMENTS | 235 WEST 76TH ST | 1562 feet to the W |
| 150 | 9108106 | CONDO 235 W 75TH ST | 235 W.75TH ST | 1573 feet to the W |
| 151 | 0308109 | 235 W. 75TH ST | 235 WEST 75TH ST | 1573 feet to the W |
| 152 | 0301510 | SPILL NUMBER 0301510 | 2159 BROADWAY | 1573 feet to the W |
| 153 | 0210091 | APARTMENT COMPLEX | 250 W 77TH ST | 1577 feet to the W |
| 154 | 9910368 | CO-OPERATIVE | 212 W.85TH ST | 1609 feet to the NNW |
| 155 | 9714534 | SPILL NUMBER 9714534 | 152 WEST 72ND ST - APT 5B | 1611 feet to the SW |
| 156 | 0807618 | 148 WEST 72ND ST | 148 WEST 72ND ST | 1611 feet to the SW |
| 157 | 0006084 | SPILL NUMBER 0006084 | 64 W 87TH ST | 1613 feet to the NNE |
| 158 | 0002592 | MANHOLE #27450 | 73RD ST/BROADWAY | 1623 feet to the WSW |
| 159 | 0514747 | APARTMENT | 241 WEST 75TH ST | 1647 feet to the W |
| 160 | 0701081 | 15 GAL ANTIFREEZE IN MANHOLE #12879 | 17 WEST 71 STREET | 1668 feet to the SSW |
| 161 | 0404949 | SB12896 | 17 WEST 71 ST | 1668 feet to the SSW |
| 162 | 0207710 | MANHOLE #25950 | 86TH ST & AMSTERDAM AV | 1699 feet to the N |
| 163 | 8702852 | 245 WEST 75TH STREET/ NEW | 245 WEST 75TH STREET | 1705 feet to the W |
| 164 | 9512657 | APTHORP BUILDING | 252 WEST 79TH ST | 1705 feet to the WNW |
| 165 | 0707307 | DRUM RUN | 213 WEST 85TH STREET | 1731 feet to the N |
| 166 | 0311725 | SPILL NUMBER 0311725 | 159 WEST 71ST ST/BTWN COL | 1745 feet to the SW |
| 167 | 9908618 | SPILL NUMBER 9908618 | 400 WEST END AVE | 1755 feet to the WNW |
| 168 | 9712910 | SPILL NUMBER 9712910 | WEST 72ND ST & BROADWAY | 1778 feet to the WSW |
| 169 | 0511868 | APT BLDG | 342 WEST END AVE | 1778 feet to the W |
| 170 | 9913687 | CENTRAL PARK/THE LAKE | 59TH ST/110TH ST | 1781 feet to the SSE |
| 171 | 9912733 | CENTRAL PARK LAKE | WEST 79TH STREET+CENTRAL | 1781 feet to the SSE |
| 172 | 9106422 | CENTRAL PARK LAKE,WEST | CENTRAL PARK LAKE,WEST | 1781 feet to the SSE |
| 173 | 0707272 | DRUM RUN | 119 WEST 87TH STREET | 1791 feet to the NNE |
| 174 | 0507825 | BUILD ING | 23 WEST 87TH STREET | 1793 feet to the NE |
| 175 | 9814968 | MANHOLE 27538 | W 85TH ST/BROADWAY | 1827 feet to the NNW |
| 176 | 9814099 | 2350 BROADWAY | 2350 BROADWAY | 1830 feet to the NNW |
| 177 | 9808972 | W79TH ST / WEST END AVE | W79TH ST / WEST END AVE | 1851 feet to the WNW |
| 178 | 9714476 | WEST END AV&W 79TH ST | WEST END AV&W 79TH ST | 1851 feet to the WNW |
| 179 | 0303245 | MANHOLE 61728 | WEST END AV/W 77TH ST | 1851 feet to the W |
| 180 | 0103043 | MANHOLE 61728 | WESTEND AVE/W 77TH ST | 1851 feet to the W |
| 181 | 0011976 | SPILL NUMBER 0011976 | W 71S ST / CENTRAL PARK W | 1856 feet to the S |
| 182 | 9710729 | IN APARTMENT | 114 W 88TH ST - APT 1 | 1890 feet to the NNE |
| 183 | 9712912 | 2071 BROADWAY | 2071 BROADWAY | 1902 feet to the WSW |
| 184 | 9002095 | 101 CENTRAL PARK WEST | 101 CENTRAL PARK WEST | 1910 feet to the SSW |
| 185 | 0503314 | 6 BLOCK AREA | W 71ST / BROADWAY | 1915 feet to the SW |
| 186 | 0209914 | SPILL NUMBER 0209914 | 425 WEST END AVE | 1927 feet to the NW |
| 187 | 9513285 | 355 WEST END AVE | 355 WEST END AVE | 1932 feet to the W |
| 188 | 0306271 | 389 WEST END AVENUE | 389 WEST END AVENUE | 1941 feet to the WNW |
| 189 | 9902131 | MANHOLE 62564 | WEST END AVE / WEST 83RD | 1946 feet to the NW |
| 190 | 0009084 | 305 - IN BROOKLYN OR MANHATTAN? | 305 W 79TH ST | 1989 feet to the WNW |

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| 191 | 1307187 | APT BLD. | 365 WEST END AVE | 1991 feet to the WNW |
| 192 | 0411668 | MANHOLE # 49901 | W 84 ST / WEST END AVE | 2039 feet to the NNW |
| 193 | 0906140 | COMMERCIAL PROPERTY/APT BLDG | 30 WEST 70TH ST | 2045 feet to the SSW |
| 194 | 9912234 | MANHOLE TM-1549 | IFO 154 W70TH ST | 2067 feet to the SW |
| 195 | 0401745 | VAULT #V1826 | WEST 72ND STREET | 2101 feet to the WSW |
| 196 | 1206031 | THE ORMANDE | 2030 BROADWAY | 2116 feet to the SW |
| 197 | 9310521 | 319 WEST 77TH STREET. | 319 WEST 77TH STREET. | 2121 feet to the WNW |
| 198 | 9004060 | 100 WEST 89TH ST/MANH | 100 WEST 89TH STREET | 2129 feet to the NNE |
| 199 | 9912170 | MANHOLE 61729 | WEST END AV / W 85TH ST | 2163 feet to the NNW |
| 200 | 9811082 | MAN HOLE #61729 | WEST END AV & W 85TH ST | 2163 feet to the NNW |
| 201 | 0308740 | 91 CENTRAL PARK WEST | 11 WEST 69TH STREET | 2188 feet to the SSW |
| 202 | 0914135 | 216301; 321 W 82 ST AND RIVERSIDE DR | 321 W 82 ST AND RIVERSIDE DR | 2191 feet to the NW |
| 203 | 0809964 | VERIZON MANHOLE | WEST 87TH ST & BROADWAY | 2195 feet to the N |
| 204 | 9815515 | 98 RIVERSIDE DRIVE | 98 RIVERSIDE DRIVE | 2204 feet to the NW |
| 205 | 9808907 | CHRISTIAN COMMUNITY | 309 W.74TH ST | 2239 feet to the W |
| 206 | 1502126 | MAN HOLE 61729 | WEST END AVE AND 85 AND 86 ST | 2242 feet to the NNW |
| 207 | 0007959 | MANHOLE 61729 | WEST END AV/BET 85 & 86 | 2242 feet to the NNW |
| 208 | 9814552 | SPILL NUMBER 9814552 | RIVERSIDE DR / W 79TH ST | 2312 feet to the WNW |
| 209 | 0914466 | 218418; W 86 ST AND WEST END AVE | W 86 ST AND WEST END AVE | 2324 feet to the NNW |
| 210 | 0906576 | VAULT 5837 | WEST 86TH ST AND WEST END AVE | 2324 feet to the NNW |
| 211 | 0914501 | 218615; W END AVE AND 72ND ST | W END AVE AND 72ND ST | 2326 feet to the WSW |
| 212 | 0707548 | COMMERCIAL BUILDING | 11 RIVERSIDE DRIVE | 2329 feet to the W |
| 213 | 0407891 | 600 COLUMBUS | 600 COLUMBUS AVE. | 2362 feet to the NNE |
| 214 | 0811781 | ROADWAY | 2 WEST 69TH ST | 2382 feet to the SSW |
| 215 | 0011833 | RIVERSIDE DR FROM 76TH | TO 79TH | 2389 feet to the WNW |
| 216 | 0109869 | RAFFERTY RES | 336 WEST 84TH ST | 2400 feet to the NW |
| 217 | 0705876 | SEVEN GALLONS OF HYDRAULIC FLUID | 53 WEST 68 STREET | 2401 feet to the SSW |
| 218 | 0000802 | IN FRONT 545 WEST END AVE | FRONT 545 WEST END AVE | 2405 feet to the NNW |
| 219 | 1500997 | PARKING GARAGE | 267-273 W87 ST | 2422 feet to the N |
| 220 | 9912480 | SPILL NUMBER 9912480 | 10 WEST 90TH ST | 2433 feet to the NE |
| 221 | 0806603 | 210 WEST 89TH ST VAULT #5535 | 210 WEST 89 TH ST | 2441 feet to the N |
| 222 | 0200291 | MANHOLE 5535 | 210 WEST 89TH ST | 2441 feet to the N |
| 223 | 0101768 | SPILL NUMBER 0101768 | 20 RIVERSIDE DR | 2455 feet to the W |
| 224 | 0610885 | APARTMENT BUIDLING | 255 WEST END AVE | 2475 feet to the WSW |
| 225 | 0405889 | SERVICE BOX #15862 | W. 90TH ST./COLUMBUS AVE. | 2478 feet to the NNE |
| 226 | 9612897 | IFO | 562 WEST END AV | 2514 feet to the NNW |
| 227 | 1405674 | 562 WEST END AVE | 562 WEST END AVE | 2514 feet to the NNW |
| 228 | 1405504 | EXCAVATION SITE | 562 WESTEND AVE | 2514 feet to the NNW |
| 229 | 9612167 | AMSTERDAM AV | BET W.89TH & W.90TH ST | 2528 feet to the N |
| 230 | 8906472 | 74 WEST 68 ST | 74 W 68TH ST | 2550 feet to the SSW |
| 231 | 0202046 | SPILL NUMBER 0202046 | 574 WEST END AV | 2570 feet to the N |
| 232 | 0308676 | IN ROADWAY | 20 W. 68TH ST | 2598 feet to the SSW |
| 233 | 0407958 | 1995 BROADWAY | 1995 BROADWAY | 2625 feet to the SW |

Closed Status Spills (Miscellaneous Spill Causes) -- Total Sites - 69

| MAP ID | FACILITY ID | FACILITY NAME |
|--------|-------------|---------------------------|
| 234 | 0505106 | VAULT 7264 |
| 235 | 0101318 | COLUMBIS AVE |
| 236 | 9906118 | SPILL NUMBER 9906118 |
| 237 | 1111702 | PVT DWELLING/APT. COMPLEX |
| 238 | 0013297 | EXCELSIOR HOTEL |
| 239 | 9608499 | 430 COLUMBUS AVE |
| 240 | 9607683 | 430 COLUMBUS AVE |

Database searched at 1/2 MILE - ASTM required search distance: 1/2 Mile

| FACILITY STREET | DISTANCE & DIRECTION |
|------------------------|----------------------|
| COLUMBUS AV AT W 79 ST | 50 feet to the W* |
| W. 78TH ST | 51 feet to the SW* |
| 66 WEST 77TH ST | 143 feet to the SW* |
| 45 WEST 81 ST | 155 feet to the NE* |
| 45 WEST 81ST STREET | 155 feet to the NE* |
| 430 COLUMBUS AVE | 164 feet to the N* |
| 430 COLUMBUS AVE | 164 feet to the N* |

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|-----|---------|---------------------------|-------------------------------|----------------------|
| 241 | 9802899 | SPILL NUMBER 9802899 | 101 WEST 78TH ST | 164 feet to the WSW* |
| 242 | 9802892 | APARTMENT BLDG | 101 W 78TH ST | 164 feet to the WSW* |
| 243 | 0805295 | APT. BUILDING | 44 WEST 77TH ST | 166 feet to the SSW* |
| 244 | 1310806 | BASEMENT | 35 WEST 81ST ST | 172 feet to the NE* |
| 245 | 9007523 | 106 WEST 81ST ST/MANH | 106 WEST 81ST STREET | 203 feet to the N |
| 246 | 0200505 | SPILL NUMBER 0200505 | 25 W 81ST ST | 242 feet to the NE |
| 247 | 9000007 | 64 WEST 82ND ST/MANH | 64 WEST 82ND STREET | 252 feet to the NE |
| 248 | 9414562 | 55 WEST 76TH STREET | 55 WEST 76TH STREET | 253 feet to the SSW |
| 249 | 1308427 | HOME/APT | 74 WEST 82 ST | 253 feet to the NNE |
| 250 | 9308078 | 57 W. 76TH STREET | 57 W. 76TH STREET | 253 feet to the SSW |
| 251 | 9003894 | 108 WEST 80TH ST/MANH | 108 WEST 80TH STREET | 272 feet to the NW |
| 252 | 9511954 | 101 WEST 81ST ST | 101 WEST 81ST ST | 293 feet to the N |
| 253 | 1000110 | ENDICOTT APARTMENT CORP. | 101 WEST 81ST STREET | 293 feet to the N |
| 254 | 0602795 | APART | 101 WEST 81ST STREET | 293 feet to the N |
| 255 | 0514785 | BASEMENT SPILL | 446 COLUMBUS AV | 293 feet to the N |
| 256 | 0401035 | SIDEWALK | 32 WEST 82ND ST | 327 feet to the NE |
| 257 | 0104721 | SPILL NUMBER 0104721 | 32 WEST 82ND ST | 327 feet to the NE |
| 258 | 9600690 | PUBLIC SCHOOL 44 | 100 WEST 77TH ST | 336 feet to the WSW |
| 259 | 9509190 | COLUMBUS AVE & 76TH ST | COLUMBUS AVE & 76TH ST | 337 feet to the SSW |
| 260 | 1501064 | MARBOROS REALTY | 22 WEST 77TH ST | 353 feet to the S |
| 261 | 0211129 | SPILL NUMBER 0211129 | 22 WEST 77TH ST | 353 feet to the S |
| 262 | 0909623 | APARTMENT | 15 WEST 81ST ST | 361 feet to the ENE |
| 263 | 9702507 | 60 WEST 76TH ST | 60 WEST 76TH ST | 402 feet to the SSW |
| 264 | 9308723 | 129 WEST 77TH STREET | 129 WEST 77TH STREET | 409 feet to the WSW |
| 265 | 1007020 | APT BUILDING | 127 WEST 79 ST | 414 feet to the WNW |
| 266 | 9700916 | APARTMENT COMPLEX | 11 WEST 81ST ST | 423 feet to the ENE |
| 267 | 1203278 | ALLEYWAY – DRUM RUN | 11 W.81ST STREET | 423 feet to the ENE |
| 268 | 9415054 | 35 W. 82ND ST | 35 W. 82ND STREET | 436 feet to the NE |
| 269 | 1214810 | BASEMENT | 131 WEST 78TH ST | 444 feet to the W |
| 270 | 0010667 | ROXY HARDWARE | 469 COLUMBUS AVE | 477 feet to the NNE |
| 271 | 1004259 | APARTMENT BUILDING | 135 WEST 79TH ST | 486 feet to the WNW |
| 272 | 9607793 | 473 COLUMBUS AVE/81 & 82 | 473 COLUMBUS AVE/81 & 82 | 528 feet to the NNE |
| 273 | 0105883 | WEST 79TH STREET AND | CENTRAL PARK | 529 feet to the ESE |
| 274 | 9906089 | 8223 | 211 CENTRAL PARK WEST | 542 feet to the ENE |
| 275 | 9010890 | 211 CENTRAL PARK W/MANH | 211 CENTRAL PARK WEST | 542 feet to the ENE |
| 276 | 0812909 | CENTRAL PARK | 211 CENTRAL PARK WEST | 542 feet to the ENE |
| 277 | 9711001 | 34–36 WEST 83RD ST | 34–36 WEST 83RD ST | 568 feet to the NE |
| 278 | 8903548 | 7,9,11 WEST 82ND ST/MANH | 7,9,11 WEST 82ND STREET | 600 feet to the ENE |
| 279 | 0613236 | 8 OZ IN MANHOLE # 30582 | WEST 75 STREET & COLUMBUS AVE | 600 feet to the SW |
| 280 | 8911278 | 27 W 74TH STREET | 27 W 74TH STREET | 849 feet to the SSW |
| 281 | 1402418 | BASEMENT | 175 W 76TH ST | 901 feet to the W |
| 282 | 9511281 | 54 WEST 74TH ST | 54 WEST 74TH ST | 930 feet to the SSW |
| 283 | 9511197 | 54 WEST 74TH STREET CONDO | 54 WEST 74TH STREET | 930 feet to the SSW |
| 284 | 1407071 | RESIDENT | 54 WEST 74TH STREET | 930 feet to the SSW |
| 285 | 9606147 | VAULT #6342 | IFO 453 AMSTERDAM AVE | 959 feet to the NNW |
| 286 | 9011809 | 200 WEST 79TH ST/MANH | 200 WEST 79TH STREET | 1064 feet to the WNW |
| 287 | 9603097 | 10 WEST 86TH ST | 10 WEST 86TH ST | 1376 feet to the NE |
| 288 | 9307715 | 160 WEST 73RD STREET | 160 WEST 73RD STREET | 1406 feet to the SW |
| 289 | 9509544 | WEST 74TH ST/ BROADWAY | WEST 74TH ST/ BROADWAY | 1493 feet to the WSW |
| 290 | 0310337 | APARTMENT BUILDING | 203 W. 85TH ST. | 1630 feet to the N |
| 291 | 9106326 | CENTRAL PARK LAKE | CENTRAL PARK LAKE | 1781 feet to the SSE |
| 292 | 0514145 | FEEDER M51 | WEST END AVE / 84 STREET | 2039 feet to the NNW |
| 293 | 0604433 | APARTMENT BUILDING | 505 WEST END AVE | 2178 feet to the NNW |

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|-----|---------|----------------------------------|---------------------------|----------------------|
| 294 | 0307135 | STREET | WEST 69TH ST/COLUMBUS AV | 2216 feet to the SSW |
| 295 | 9812964 | FEEDER M52 | WEST END AVE / 86TH ST | 2324 feet to the NNW |
| 296 | 9416405 | WISE TOWERS | 49 WEST 89TH STREET | 2326 feet to the NNE |
| 297 | 0310328 | APARTMENT BUILDING | 19 WEST 89TH STREET | 2332 feet to the NE |
| 298 | 1205821 | TRANSFORMER | W 78TH ST & RIVERSIDE DR | 2367 feet to the WNW |
| 299 | 0107530 | ROADSIDE | 2000 BROADWAY | 2413 feet to the SW |
| 300 | 9209074 | 144 WEST 90TH STREET | 144 WEST 90TH STREET | 2508 feet to the NNE |
| 301 | 1102137 | VAULTS V9112/V9328/V9500/SB12447 | WEST 68TH ST AND BROADWAY | 2532 feet to the SW |
| 302 | 1102131 | ON SOUTH SIDE OF WEST 68 STREET | BETWEEN AMSTERDAM AVE AND | 2582 feet to the SW |

Petroleum Bulk Storage Sites --- Total Sites - 71

| MAP ID | FACILITY ID | FACILITY NAME |
|--------|-------------|---|
| 303 | 2-611190 | AMERICAN MUSEUM OF NATURAL HISTORY |
| 304 | NY01442 | AMERICAN MUSEUM OF NATUR |
| 305 | 2-453811 | THE ORLEANS |
| 306 | 2-605641 | PARC 77 |
| 307 | 2-148075 | 64-66 W 77 ST |
| 308 | 2-606646 | 101 WEST 80TH OWNERS CORP |
| 309 | NY00039 | 101 W 80 OWNERS CORP |
| 310 | 2-271284 | JOBEN REALTY ASSOC |
| 311 | 2-210870 | 102 WEST ASSOCIATES |
| 312 | 2-098094 | 370 COLUMBUS REALTY LLC |
| 313 | 2-272779 | THE PARK BELVEDERE CONDOMINIUM |
| 314 | 2-607150 | THE EXCELSIOR HOTEL |
| 315 | 2-243531 | 51 WEST 81ST CORP. |
| 316 | 2-245224 | PARK 44 CORP |
| 317 | 2-610232 | THE MUSEUM 77 CONDOMINIUM |
| 318 | 2-063673 | 81ST DWELLERS |
| 319 | 2-338796 | 102 WEST 80TH ST |
| 320 | NY10312 | WEST 80 ST ASSOCIATES |
| 321 | 2-108332 | D L R H ASSOC |
| 322 | 2-316377 | 341 COLUMBUS REALTY CO. LLC |
| 323 | 2-236756 | 118 TENANTS CORP |
| 324 | 2-360066 | 25 WEST 81ST STREET LLC |
| 325 | 2-611976 | WALBER 82ND STREET ASSOCIATES |
| 326 | 2-112283 | 4077 OWNERS CORP |
| 327 | 2-211583 | ENDICOTT COMMERCIAL UNIT |
| 328 | 2-249092 | ENDICOTT APARTMENT CORP. |
| 329 | 2-353876 | INTERMEDIATE SCHOOL 44 - MANHATTAN M044 |
| 330 | 2-266590 | 3282 OWNERS CORP. |
| 331 | 2-272930 | ENNISMORE APARTMENTS INC |
| 332 | 2-420999 | 22 WEST 77TH STREET |
| 333 | NY01319 | ALEIDA REALTY CRP |
| 334 | 2-233471 | 15 W 81ST ST TENANTS CORP |
| 335 | 2-315842 | 60 WEST 76TH STREET |
| 336 | 2-244600 | CLIFTON HOUSE OWNERS CORP. |
| 337 | 2-064726 | 20 W 77 ST |
| 338 | 2-217484 | 20TH PCT |
| 339 | 2-286192 | 100 WEST 76TH STREET |
| 340 | 2-147311 | HAYDEN OWNERS CORP |
| 341 | 2-311502 | 4182 TENANTS CORP |
| 342 | 2-043877 | RESIDENTIAL APARTMENT BUILDING |
| 343 | 2-129992 | 125 W 76 ST |

Database searched at 1/8 MILE - ASTM required search distance: Property & Adjacent

| FACILITY STREET | DISTANCE & DIRECTION |
|------------------------|----------------------|
| 200 CENTRAL PARK WEST | 111 feet to the ESE* |
| 179 CENTRAL PARK W | 111 feet to the ESE* |
| 100 WEST 80TH STREET | 129 feet to the NNW* |
| 50-52 WEST 77TH STREET | 129 feet to the SSW* |
| 66 WEST 77TH STREET | 140 feet to the SW* |
| 101 WEST 80TH STREET | 146 feet to the NNW* |
| 101 W 80 ST | 146 feet to the NNW* |
| 101 W. 78TH ST | 149 feet to the WSW* |
| 102 WEST 79 STREET | 151 feet to the W* |
| 370 COLUMBUS AVE | 152 feet to the WSW* |
| 101 WEST 79TH STREET | 157 feet to the NW* |
| 45 WEST 81 STREET | 162 feet to the NE* |
| 51 WEST 81ST ST | 165 feet to the NNE* |
| 44 WEST 77TH STREET | 169 feet to the SSW* |
| 105 WEST 77TH STREET | 184 feet to the SW* |
| 35 WEST 81ST ST | 185 feet to the NE* |
| 102 WEST 80TH ST | 192 feet to the NW* |
| 103 W 80 ST | 212 feet to the NNW |
| 117 WEST 79TH ST | 246 feet to the NW |
| 59 WEST 76TH STREET | 247 feet to the SSW |
| 118 WEST 79TH STREET | 247 feet to the W |
| 25 WEST 81ST STREET | 258 feet to the NE |
| 80 WEST 82ND ST | 259 feet to the NNE |
| 40 WEST 77 ST | 262 feet to the S |
| 440 COLUMBUS AVENUE | 288 feet to the N |
| 101 WEST 81ST STREET | 288 feet to the N |
| 100 WEST 77TH STREET | 304 feet to the SW |
| 32 WEST 82ND STREET | 342 feet to the NE |
| 124 WEST 79TH STREET | 347 feet to the W |
| 22 WEST 77TH STREET | 357 feet to the S |
| 73 W 82 ST | 381 feet to the NNE |
| 15 W 81ST ST | 394 feet to the ENE |
| 60 WEST 76TH STREET | 394 feet to the SSW |
| 127 WEST 79TH STREET | 400 feet to the NW |
| 20 WEST 77TH STREET | 409 feet to the S |
| 120 WEST 82ND STREET | 410 feet to the N |
| 100 WEST 76TH STREET | 423 feet to the SW |
| 11 WEST 81ST STREET | 429 feet to the ENE |
| 41 WEST 82ND STREET | 434 feet to the NE |
| 35 WEST 82ND STREET | 441 feet to the NE |
| 125 WEST 76TH STREET | 447 feet to the WSW |

| | | | | |
|-----|----------|---------------------------------|--------------------------|---------------------|
| 344 | 2-332240 | 79TH ST. RESIDENCE CORP. | 135 WEST 79TH STREET | 480 feet to the WNW |
| 345 | 2-297852 | 57 WEST 75TH ST | 57 WEST 75TH ST | 499 feet to the SSW |
| 346 | 2-064696 | 6-16 WEST 77 STREET | 6 WEST 77TH ST | 500 feet to the S |
| 347 | 2-603532 | WEST 82ND OWNERS CORPORATION | 107-111 WEST 82ND STREET | 503 feet to the N |
| 348 | NY00056 | 107-111 W.82 ST.ASSOC. | 109 W 82 ST | 503 feet to the N |
| 349 | 2-607024 | N&R REALTY | 471 COLUMBUS AVENUE | 504 feet to the NNE |
| 350 | NY07044 | N & R REALTY CO | 471 COLUMBUS AVE | 504 feet to the NNE |
| 351 | 2-306142 | APT BUILDING | 140 W 79TH ST | 511 feet to the WNW |
| 352 | 2-608998 | 120 WEST 76TH STREET | 120 WEST 76TH STREET | 530 feet to the SW |
| 353 | NY10324 | WEST SIDE INST SYNG | 120 W 76 ST | 530 feet to the SW |
| 354 | 2-600842 | 145 W. 79TH STREET OWNERS CORP. | 145 W. 79TH STREET | 537 feet to the WNW |
| 355 | 2-311871 | 83RD STREET OWNERS CORP | 46 W 83 STREET | 541 feet to the NE |
| 356 | 2-214507 | 146 WEST 79 ST | 146 WEST 79TH STREET | 566 feet to the WNW |
| 357 | 2-606629 | CHA REALTY LLC (JOSEPH CHADI) | 101 WEST 75 ST. | 572 feet to the SW |
| 358 | NY05520 | JOSEPH CHADI | 101 W 75 ST | 572 feet to the SW |
| 359 | 2-113654 | BERESFORD APARTMENTS | 211 CENTRAL PARK WEST | 575 feet to the ENE |
| 360 | 2-055549 | 147 W 79TH ST | 147 WEST 79TH STREET | 598 feet to the WNW |
| 361 | 2-357898 | FDNY ENGINE CO. 74 | 120 WEST 83RD STREET | 608 feet to the N |
| 362 | 2-358495 | 155 WEST 81 STREET ASSOCIATES | 155 WEST 81 STREET | 610 feet to the NNW |
| 363 | 2-200905 | 158 WEST 81ST STREET | 158 WEST 81ST STREET | 614 feet to the NNW |
| 364 | 2-607938 | 14-16 WEST 76TH ST., LLC | 14-16 WEST 76TH STREET | 617 feet to the S |
| 365 | NY02492 | CENTRAL PARK REALTY | 14 W 76 ST | 623 feet to the S |
| 366 | 2-281808 | 150 WEST 79 CORP | 150 WEST 79TH STREET | 625 feet to the WNW |
| 367 | 2-309133 | RESIDENTIAL BLDG | 127 W 82 ST | 628 feet to the N |
| 368 | 2-602707 | GREYSTONE CONDOMINIUM | 127 WEST 82ND STREET | 628 feet to the N |
| 369 | 2-147370 | 151 W 78 ST | 151 WEST 78TH STREET | 630 feet to the W |
| 370 | 2-353477 | P.S. 87 - MANHATTAN (M087) | 160 WEST 78TH STREET | 638 feet to the W |
| 371 | 2-198404 | 146 W 82 ST OWNERS CORP | 146 WEST 82ND STREET | 639 feet to the NNW |
| 372 | NY00755 | 481 COLUMBUS ASSOC. | 73 W 83 ST | 640 feet to the NNE |
| 373 | 2-265926 | HARTFORD REALTY COMPANY, LLC | 60 W 75 STREET | 659 feet to the SSW |

Hazardous Waste Generators, Transporters -- Total Sites - 130

| MAP ID | FACILITY ID | FACILITY NAME |
|--------|--------------|-------------------------------------|
| 374 | NYP004188918 | CONSOLIDATED EDISON |
| 375 | NYP004739587 | CON EDISON |
| 376 | NYP004322459 | CON EDISON |
| 377 | NYP004322616 | CON EDISON |
| 378 | NYP004584280 | CON EDISON |
| 379 | NYP004616207 | CON EDISON |
| 380 | NYP004616215 | CON EDISON |
| 381 | NYP004323150 | CON EDISON |
| 382 | NYP004322483 | CON EDISON |
| 383 | NYP004322491 | CON EDISON |
| 384 | NYP004322475 | CON EDISON |
| 385 | NYP004177564 | CONED |
| 386 | NYP004191276 | CONSOLIDATED EDISON SB51914 |
| 387 | NYP004252771 | CONSOLIDATED EDISON COMPANY OF NY |
| 388 | NYP004253761 | CONSOLIDATED EDISON |
| 389 | NYP004323655 | CON EDISON |
| 390 | NYD061202768 | AMERICAN MUSEUM OF NATIONAL HISTORY |
| 391 | NYP000782847 | AMERICAN MUSEUM OF NATURAL HISTORY |
| 392 | NYP004084364 | CONSOLIDATED EDISON |
| 393 | NYP004322772 | CON EDISON |

Database searched at 1/8 MILE - ASTM required search distance: Property & Adjacent

| FACILITY STREET | DISTANCE & DIRECTION |
|----------------------------------|----------------------|
| WEST 80 ST & COLUMBUS AVE | 49 feet to the N* |
| W 80TH ST & COLUMBUS AVE | 49 feet to the N* |
| NWC 79 ST & COLUMBUS AVE | 50 feet to the W* |
| SWC 79 & COLUMBUS AVE | 50 feet to the W* |
| NWC 79 ST & COLUMBUS AVE | 50 feet to the W* |
| SWC 79 ST & COLUMBUS AVE | 50 feet to the W* |
| 18-120 79 ST & COLUMBUS AVE | 50 feet to the W* |
| FO 51-7 W 81 ST EO COLUMBUS AVE | 74 feet to the NNE* |
| FO 426-428 COLUMBUS AVE NO 80 ST | 75 feet to the N* |
| FO 430-32 COLUMBUS AVE NO 80 ST | 75 feet to the N* |
| FO 422-424 COLUMBUS AVE | 76 feet to the N* |
| W 77TH ST & COLUMBUS AVE | 79 feet to the SW* |
| W 77 ST AND COLUMBUS AVE | 79 feet to the SW* |
| N/W/C W 77TH ST AND CENTRAL PA | 79 feet to the SW* |
| N/E COLUMBUS & 77 ST | 79 feet to the SW* |
| NW COLUMBUS & 77 ST | 79 feet to the SW* |
| 79TH STREET & COLUMBIA | 86 feet to the SE* |
| CENTRAL PARK W & 79TH ST | 86 feet to the SE* |
| V0062 - 41-49 W 81ST | 129 feet to the NE* |
| FO 41 W 81 ST EO COLUMBUS AVE | 129 feet to the NE* |

| | | | | |
|-----|--------------|----------------------------------|---------------------------------|----------------------|
| 394 | NYD006545883 | ADLERS CLEANERS | 445 COLUMBUS AVE | 132 feet to the NNE* |
| 395 | NYD981083835 | JEFAN CLEANING SERVICE | 445 COLUMBUS AVENUE | 132 feet to the NNE* |
| 396 | NYR000225490 | EVELYN BUILDING THE | 101 W 78TH ST | 141 feet to the WSW* |
| 397 | NYP004660627 | CON EDISON | 420 COLUMBUS & 80 ST | 143 feet to the NNW* |
| 398 | NYP004322699 | CON EDISON | FO 441 COLUMBUS AVE NO 81 ST | 144 feet to the NNE* |
| 399 | NYR000176487 | PARK 44 CORPORATION | 44 W 77TH ST | 200 feet to the SSW |
| 400 | NYP004322335 | CON EDISON | FO 440 COLUMBUS AVE NO 81 ST | 205 feet to the NNE |
| 401 | NYP004771267 | CON EDISON | FO 446 COLUMBUS AVE | 205 feet to the NNE |
| 402 | NYP004665659 | CON EDISON | 108 W 81 ST | 218 feet to the N |
| 403 | NYP004322806 | CON EDISON | FO 108 W 81 ST EO AMSTERDAM AVE | 224 feet to the N |
| 404 | NYP004771382 | CON EDISON | 442 COLUMBUS AVE | 226 feet to the N |
| 405 | NYP004177630 | CONSOLIDATED EDISON | 104 WEST 80 STREET | 230 feet to the NW |
| 406 | NYP044177630 | CONSOLIDATED EDISON | 104 WEST 80 STREET | 230 feet to the NW |
| 407 | NYD987038908 | RUDIN MGMT CO /25 WEST 81 STREET | 25 WEST 81 STREET | 245 feet to the ENE |
| 408 | NYP004322632 | CON EDISON | FO 118 W 79 ST EO AMSTERDAM AVE | 246 feet to the WNW |
| 409 | NYP004322467 | CON EDISON | FO 117 W 79 ST EO AMSTERDAM AVE | 251 feet to the WNW |
| 410 | NYP004321824 | CON EDISON | FO 343 COLUMBUS AVE NO 76 ST | 258 feet to the SW |
| 411 | NYP004748158 | CON EDISON | OPP 341 COLUMBUS AVE & 76 ST | 259 feet to the SW |
| 412 | NYP004199287 | CONSOLIDATED EDISON | 345 COLUMBUS AVE | 260 feet to the SSW |
| 413 | NYP004322756 | CON EDISON | FO 112 W 81 ST EO AMSTERDAM AVE | 265 feet to the N |
| 414 | NYP004165833 | CONSOLIDATED EDISON | 115 W 77TH ST | 267 feet to the WSW |
| 415 | NYP004724308 | CON EDISON | 113 W 78 ST | 291 feet to the W |
| 416 | NYP004321931 | CON EDISON | FO 114 W 78 ST EO AMSTERDAM AVE | 299 feet to the WSW |
| 417 | NYP004762563 | CON ED | 340 COLUMBUS AVE | 325 feet to the SW |
| 418 | NYP004776233 | CON ED | 340 COLUMBUS AVE | 325 feet to the SW |
| 419 | NYR000214569 | NYC DEPT OF EDUCATION – I S 44M | 100 W 77TH ST | 325 feet to the SW |
| 420 | NYP004414678 | CON EDISON | 129 W 80TH ST & AMSTERDAM AV | 332 feet to the NNW |
| 421 | NYP004323143 | CON EDISON | W 82 ST LO COLUMBUS AVE | 335 feet to the NNE |
| 422 | NYP004427522 | CON EDISON | 468 82ND ST & COLUMBUS AVE | 335 feet to the NNE |
| 423 | NYP004657276 | CON EDISON | W 82 ST & COLUMBUS AV | 335 feet to the NNE |
| 424 | NYP004657888 | CON EDISON | N/E/C 82 ST & COLUMBUS AVE | 335 feet to the NNE |
| 425 | NYP004255352 | CONSOLIDATED EDISON | F/O 43 W 76 E/O COLUMBUS AVE | 336 feet to the SSW |
| 426 | NYP004124798 | CONSOLIDATED EDISON | 76 ST & COLUMBUS AVE V6001 | 337 feet to the SW |
| 427 | NYP004321915 | CON EDISON | NWC 76 ST & COLUMBUS AVE | 337 feet to the SW |
| 428 | NYP004628343 | CON EDISON | W 76 ST & COLUMBUS AVE | 337 feet to the SW |
| 429 | NYP004747747 | CON EDISON | W 76 ST & COLUMBUS AV | 337 feet to the SW |
| 430 | NYP004748166 | CON EDISON | 76TH ST & COLUMBUS AVE | 337 feet to the SW |
| 431 | NYP004776241 | CON ED | N/W/C 76 ST & COLUMBUS AVE | 337 feet to the SW |
| 432 | NYP004616223 | CON EDISON | 120–28 W 79 & COLUMBUS AVE | 339 feet to the W |
| 433 | NYP004322624 | CON EDISON | FO 120 W 79 ST EO AMSTERDAM AVE | 347 feet to the WNW |
| 434 | NYP004177648 | CONSOLIDATED EDISON | 122 WEST 81 STREET | 362 feet to the NNW |
| 435 | NYP004636387 | CON EDISON | 20 WEST 82ND STREET | 374 feet to the ENE |
| 436 | NYP004177796 | CONED | 101 W 82 STREET AND COLUMBUS A | 386 feet to the NNE |
| 437 | NYP004169363 | CONSOLIDATED EDISON | 25 W 76TH ST | 388 feet to the S |
| 438 | NYP004629028 | CON EDISON | 25 W 76 ST | 388 feet to the S |
| 439 | NYP004657466 | CON EDISON | 55 W 82 ST & COLUMBUS AVE | 406 feet to the NNE |
| 440 | NYP004831182 | CON EDISON | 127 W 78TH ST | 407 feet to the W |
| 441 | NYP004657474 | CON EDISON | 51 W 82 & COLUMBUS AVE | 407 feet to the NE |
| 442 | NYP004657482 | CON EDISON | 61 W 82 ST & COLUMBUS AVE | 407 feet to the NNE |
| 443 | NYP004295259 | CON EDISON | F/O 339 COLUMBUS AVE | 416 feet to the SW |
| 444 | NYP004322343 | CON EDISON | FO 338 COLUMBUS AVE NO 75 ST | 423 feet to the SW |
| 445 | NYP004628335 | CON EDISON | OPP SIDE 116 W 76 ST | 445 feet to the SW |
| 446 | NYP004789236 | CON EDISON | 132 W 81ST ST | 456 feet to the NNW |

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|-----|--------------|--------------------------------------|------------------------------------|---------------------|
| 447 | NYP004657292 | CON EDISON | 16-18 W 82 ST & COLUMBUS AV | 461 feet to the ENE |
| 448 | NYP004250080 | CONSOLIDATED EDISON – SERV BOX 13735 | F/O 26-28 W 76TH ST 7 COLUMBUS AVE | 463 feet to the S |
| 449 | NYP004190013 | CONSOLIDATED EDISON | 29 WEST 82 STREET | 464 feet to the NE |
| 450 | NYP004756003 | CON EDISON | 29 W 82ND ST | 464 feet to the NE |
| 451 | NYP004665790 | CON EDISON | 111 W 82 ST | 471 feet to the N |
| 452 | NYP004177572 | CONSOLIDATED EDISON | 135 W. 78 ST | 478 feet to the W |
| 453 | NYP004323036 | CON EDISON | FO 135 78 ST EO AMSTERDAM AVE | 481 feet to the W |
| 454 | NYP004461216 | CON EDISON | 130 W 80TH ST | 483 feet to the NW |
| 455 | NYP004187662 | CONSOLIDATED EDISON | W 78 ST BETW COLUMBUS/AMSTERDAM | 489 feet to the W |
| 456 | NYP004177911 | CONSOLIDATED EDISON | 23 W 82 ST | 496 feet to the NE |
| 457 | NYP004735023 | CON EDISON | 21-23 W 82 ST | 496 feet to the NE |
| 458 | NYP004322954 | CON EDISON | FO 140 N 79 ST EO AMSTERDAM AVE | 514 feet to the WNW |
| 459 | NYP004250080 | CON EDISON SERVICE BOX 13735 | 26-28 W 76TH ST E OF COLUMBUS AVE | 516 feet to the S |
| 460 | NYR000066894 | 6-16 WEST 77TH STREET CORP | 6-16 W 77TH ST | 518 feet to the S |
| 461 | NYP004418547 | CON EDISON | F/O 20TH W 76TH ST | 524 feet to the S |
| 462 | NYP004665758 | CON EDISON | 26 W 76 ST | 526 feet to the S |
| 463 | NYP004322947 | CON EDISON | FO 9-11 W 81 ST EO COLUMBUS AVE | 529 feet to the E |
| 464 | NYP004415584 | CON EDISON | 47-49 75TH ST & CPW | 531 feet to the SSW |
| 465 | NYP004322962 | CON EDISON | FO 145 W 79 ST & AMSTERDAM AVE | 534 feet to the WNW |
| 466 | NYP004177580 | CONSOLIDATED EDISON | OPP 141 W. 78ST | 538 feet to the W |
| 467 | NYP004188868 | CONSOLIDATED EDISON | 43 WEST 75TH ST | 545 feet to the SSW |
| 468 | NYP004161949 | CONSOLIDATED EDISON | 78TH & 8TH AVE | 548 feet to the SE |
| 469 | NYP004166534 | CONSOLIDATED EDISON | 41 W 75TH ST | 551 feet to the SSW |
| 470 | NYP004842635 | CON EDISON | 140 W 80TH ST | 558 feet to the NW |
| 471 | NYP004853350 | CON ED | 140 W 80TH ST | 558 feet to the NW |
| 472 | NYP004652006 | CON EDISON | 34 W 83RD ST | 563 feet to the NE |
| 473 | NYP004624887 | CON EDISON | 143-144 W 78 ST | 563 feet to the W |
| 474 | NYP004629697 | CON EDISON | 143-144 W 78 ST | 563 feet to the W |
| 475 | NYP000927871 | CONSOLIDATED EDISON | 211 CENTRAL PARK WEST | 567 feet to the ENE |
| 476 | NYP004041976 | CONSOLIDATED EDISON | V8223-CENTRAL PARK WEST | 567 feet to the ENE |
| 477 | NYP004057626 | CONSOLIDATED EDISON | V8223-211 CENTRAL PARK W | 567 feet to the ENE |
| 478 | NYP004648887 | CON EDISON | 219 CENTRAL PARK WEST | 567 feet to the ENE |
| 479 | NYP004631966 | CON EDISON | 98 W 83 ST | 572 feet to the NNE |
| 480 | NYP004629689 | CON EDISON | 147-145 W 78 ST | 587 feet to the W |
| 481 | NYP004666665 | CON EDISON | 148 WEST 77TH STREET | 592 feet to the WSW |
| 482 | NYP004323051 | CON EDISON | NEC 83 ST & COLUMBUS AVE | 600 feet to the NNE |
| 483 | NYP004748836 | CON EDISON | NWC 83 & COLUMBUS AV | 600 feet to the NNE |
| 484 | NYP004186664 | CON EDISON | W 75TH ST & COLUMBUS AVE | 600 feet to the SW |
| 485 | NYP004188868 | CON EDISON | W 75TH ST & COLUMBUS AVE | 600 feet to the SW |
| 486 | NYP004191227 | CONSOLIDATED EDISON | W 75TH STREET AND COLUMBUS AVE | 600 feet to the SW |
| 487 | NYP004253407 | CONSOLIDATED EDISON | S/W/C W 75 ST & COLUMBUS AVE | 600 feet to the SW |
| 488 | NYP004272118 | CON EDISON | SWC W 75 & COLUMBUS AVE | 600 feet to the SW |
| 489 | NYP004274387 | CON EDISON | S/W/C W 75 ST & COLUMBUS AVVE | 600 feet to the SW |
| 490 | NYP004177655 | CONSOLIDATED EDISON | 146 WEST 80 STREET | 617 feet to the NW |
| 491 | NYR000009456 | NYC BOARD OF EDUCATION | 160 WEST 78TH STREET | 622 feet to the W |
| 492 | NYP004322970 | CON EDISON | FO 150 W 79 ST & AMSTERDAM AVE | 626 feet to the WNW |
| 493 | NYP004322996 | CON EDISON | FO 150 W 79 ST & AMSTERDAM AVE | 626 feet to the WNW |
| 494 | NYP004629713 | CON EDISON | 151 W 78 ST | 627 feet to the W |
| 495 | NYP004633319 | CON EDISON | F/O 35 W 75 ST | 634 feet to the SSW |
| 496 | NYP004657243 | CON EDISON | OPP 5 W 82 ST & COLUMBUS AV | 641 feet to the ENE |
| 497 | NYP004667259 | CON EDISON | OPP 5 W 82ND ST & COLUMBUS AVE | 641 feet to the ENE |
| 498 | NYP004331971 | CON EDISON | FO 152 W 78 ST | 646 feet to the W |
| 499 | NYP004331989 | CON EDISON | FO 148 W 78 ST | 646 feet to the W |

| | | |
|-----|--------------|---------------------|
| 500 | NYP004187613 | CONSOLIDATED EDISON |
| 501 | NYP004636353 | CON EDISON |
| 502 | NYP004323044 | CON EDISON |
| 503 | NYP004189908 | CONSOLIDATED EDISON |

FRONT OF 104 WEST 75 STREET
18 W 83 ST & COLUMBUS
FO 109 W 83 ST & AMSTERDAM AVE
SB 13554 F/O 106 W 75TH ST

647 feet to the SW
649 feet to the NE
654 feet to the N
654 feet to the SW

Air Discharge Sites -- Total Sites - 1

| MAP ID | FACILITY ID | FACILITY NAME |
|--------|-------------|----------------------|
| 504 | 36061N1208 | BERESFORD APARTMENTS |

Database searched at 1/8 MILE - Non-ASTM Database

FACILITY STREET
211 CENTRAL PARK W

DISTANCE & DIRECTION
594 feet to the ENE

Identified Toxic Sites by Proximity

American Museum of Natural History, New York, NY 10024

* Compass directions can vary substantially for sites located very close to the subject property address.

| Map Id# | Site Name | Site Street | Approximate Distance & Direction From Property | Toxic Site Category |
|---------|-------------------------------------|----------------------------------|--|---|
| 374 | CONSOLIDATED EDISON | WEST 80 ST & COLUMBUS AVE | 49 feet to the N* | Hazardous Waste Generator/Transporter |
| 375 | CON EDISON | W 80TH ST & COLUMBUS AVE | 49 feet to the N* | Hazardous Waste Generator/Transporter |
| 71 | INTERSECTION | W. 79TH ST. & COLUMBUS AVE. | 50 feet to the W* | Closed Status Spill (Unk/Other Cause) |
| 234 | VAULT 7264 | COLUMBUS AV AT W 79 ST | 50 feet to the W* | Closed Status Spill (Misc. Spill Cause) |
| 376 | CON EDISON | NWC 79 ST & COLUMBUS AVE | 50 feet to the W* | Hazardous Waste Generator/Transporter |
| 377 | CON EDISON | SWC 79 & COLUMBUS AVE | 50 feet to the W* | Hazardous Waste Generator/Transporter |
| 378 | CON EDISON | NWC 79 ST & COLUMBUS AVE | 50 feet to the W* | Hazardous Waste Generator/Transporter |
| 379 | CON EDISON | SWC 79 ST & COLUMBUS AVE | 50 feet to the W* | Hazardous Waste Generator/Transporter |
| 380 | CON EDISON | 18-120 79 ST & COLUMBUS AVE | 50 feet to the W* | Hazardous Waste Generator/Transporter |
| 235 | COLUMBUS AVE | W. 78TH ST | 51 feet to the SW* | Closed Status Spill (Misc. Spill Cause) |
| 381 | CON EDISON | FO 51-7 W 81 ST EO COLUMBUS AVE | 74 feet to the NNE* | Hazardous Waste Generator/Transporter |
| 382 | CON EDISON | FO 426-428 COLUMBUS AVE NO 80 ST | 75 feet to the N* | Hazardous Waste Generator/Transporter |
| 383 | CON EDISON | FO 430-32 COLUMBUS AVE NO 80 ST | 75 feet to the N* | Hazardous Waste Generator/Transporter |
| 384 | CON EDISON | FO 422-424 COLUMBUS AVE | 76 feet to the N* | Hazardous Waste Generator/Transporter |
| 72 | 204936; NE W 77 ST COLUMBUS AV | NE W 77 ST COLUMBUS AV | 79 feet to the SW* | Closed Status Spill (Unk/Other Cause) |
| 385 | CONED | W 77TH ST & COLUMBUS AVE | 79 feet to the SW* | Hazardous Waste Generator/Transporter |
| 386 | CONSOLIDATED EDISON SB51914 | W 77 ST AND COLUMBUS AVE | 79 feet to the SW* | Hazardous Waste Generator/Transporter |
| 387 | CONSOLIDATED EDISON COMPANY OF NY | N/W/C W 77TH ST AND CENTRAL PA | 79 feet to the SW* | Hazardous Waste Generator/Transporter |
| 388 | CONSOLIDATED EDISON | N/E COLUMBUS & 77 ST | 79 feet to the SW* | Hazardous Waste Generator/Transporter |
| 389 | CON EDISON | NW COLUMBUS & 77 ST | 79 feet to the SW* | Hazardous Waste Generator/Transporter |
| 390 | AMERICAN MUSEUM OF NATIONAL HISTORY | 79TH STREET & COLUMBIA | 86 feet to the SE* | Hazardous Waste Generator/Transporter |
| 391 | AMERICAN MUSEUM OF NATURAL HISTORY | CENTRAL PARK W & 79TH ST | 86 feet to the SE* | Hazardous Waste Generator/Transporter |
| 303 | AMERICAN MUSEUM OF NATURAL HISTORY | 200 CENTRAL PARK WEST | 111 feet to the ESE* | Petroleum Bulk Storage Site |
| 304 | AMERICAN MUSEUM OF NATUR | 179 CENTRAL PARK W | 111 feet to the ESE* | Petroleum Bulk Storage Site |
| 305 | THE ORLEANS | 100 WEST 80TH STREET | 129 feet to the NNW* | Petroleum Bulk Storage Site |
| 306 | PARC 77 | 50-52 WEST 77TH STREET | 129 feet to the SSW* | Petroleum Bulk Storage Site |
| 392 | CONSOLIDATED EDISON | V0062 - 41-49 W 81ST | 129 feet to the NE* | Hazardous Waste Generator/Transporter |
| 393 | CON EDISON | FO 41 W 81 ST EO COLUMBUS AVE | 129 feet to the NE* | Hazardous Waste Generator/Transporter |
| 394 | ADLERS CLEANERS | 445 COLUMBUS AVE | 132 feet to the NNE* | Hazardous Waste Generator/Transporter |
| 395 | JEFAN CLEANING SERVICE | 445 COLUMBUS AVENUE | 132 feet to the NNE* | Hazardous Waste Generator/Transporter |
| 307 | 64-66 W 77 ST | 66 WEST 77TH STREET | 140 feet to the SW* | Petroleum Bulk Storage Site |
| 396 | EVELYN BUILDING THE | 101 W 78TH ST | 141 feet to the WSW* | Hazardous Waste Generator/Transporter |
| 236 | SPILL NUMBER 9906118 | 66 WEST 77TH ST | 143 feet to the SW* | Closed Status Spill (Misc. Spill Cause) |
| 397 | CON EDISON | 420 COLUMBUS & 80 ST | 143 feet to the NNW* | Hazardous Waste Generator/Transporter |
| 398 | CON EDISON | FO 441 COLUMBUS AVE NO 81 ST | 144 feet to the NNE* | Hazardous Waste Generator/Transporter |
| 308 | 101 WEST 80TH OWNERS CORP | 101 WEST 80TH STREET | 146 feet to the NNW* | Petroleum Bulk Storage Site |
| 309 | 101 W 80 OWNERS CORP | 101 W 80 ST | 146 feet to the NNW* | Petroleum Bulk Storage Site |
| 310 | JOBEN REALTY ASSOC | 101 W. 78TH ST | 149 feet to the WSW* | Petroleum Bulk Storage Site |
| 311 | 102 WEST ASSOCIATES | 102 WEST 79 STREET | 151 feet to the W* | Petroleum Bulk Storage Site |
| 312 | 370 COLUMBUS REALTY LLC | 370 COLUMBUS AVE | 152 feet to the WSW* | Petroleum Bulk Storage Site |
| 237 | PVT DWELLING/APT. COMPLEX | 45 WEST 81 ST | 155 feet to the NE* | Closed Status Spill (Misc. Spill Cause) |
| 238 | EXCELSIOR HOTEL | 45 WEST 81ST STREET | 155 feet to the NE* | Closed Status Spill (Misc. Spill Cause) |
| 73 | 51 WEST 81ST ST | 51 WEST 81ST ST | 157 feet to the NNE* | Closed Status Spill (Unk/Other Cause) |
| 313 | THE PARK BELVEDERE CONDOMINIUM | 101 WEST 79TH STREET | 157 feet to the NW* | Petroleum Bulk Storage Site |
| 314 | THE EXCELSIOR HOTEL | 45 WEST 81 STREET | 162 feet to the NE* | Petroleum Bulk Storage Site |

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| 74 | ONE GALLON FUEL OIL SPILL ON CONCRETE | 101 WEST 78TH STREET | 164 feet to the WSW* | Closed Status Spill (Unk/Other Cause) |
| 239 | 430 COLUMBUS AVE | 430 COLUMBUS AVE | 164 feet to the N* | Closed Status Spill (Misc. Spill Cause) |
| 240 | 430 COLUMBUS AVE | 430 COLUMBUS AVE | 164 feet to the N* | Closed Status Spill (Misc. Spill Cause) |
| 241 | SPILL NUMBER 9802899 | 101 WEST 78TH ST | 164 feet to the WSW* | Closed Status Spill (Misc. Spill Cause) |
| 242 | APARTMENT BLDG | 101 W 78TH ST | 164 feet to the WSW* | Closed Status Spill (Misc. Spill Cause) |
| 42 | BLDG | 102 WEST 79TH ST | 165 feet to the W* | Closed Status Tank Test Failure |
| 315 | 51 WEST 81ST CORP. | 51 WEST 81ST ST | 165 feet to the NNE* | Petroleum Bulk Storage Site |
| 243 | APT. BUILDING | 44 WEST 77TH ST | 166 feet to the SSW* | Closed Status Spill (Misc. Spill Cause) |
| 316 | PARK 44 CORP | 44 WEST 77TH STREET | 169 feet to the SSW* | Petroleum Bulk Storage Site |
| 75 | SERVICE BOX 4414 | 35 WEST 81ST ST | 172 feet to the NE* | Closed Status Spill (Unk/Other Cause) |
| 244 | BASEMENT | 35 WEST 81ST ST | 172 feet to the NE* | Closed Status Spill (Misc. Spill Cause) |
| 317 | THE MUSEUM 77 CONDOMINIUM | 105 WEST 77TH STREET | 184 feet to the SW* | Petroleum Bulk Storage Site |
| 318 | 81ST DWELLERS | 35 WEST 81ST ST | 185 feet to the NE* | Petroleum Bulk Storage Site |
| 319 | 102 WEST 80TH ST | 102 WEST 80TH ST | 192 feet to the NW* | Petroleum Bulk Storage Site |
| 399 | PARK 44 CORPORATION | 44 W 77TH ST | 200 feet to the SSW | Hazardous Waste Generator/Transporter |
| 245 | 106 WEST 81ST ST/MANH | 106 WEST 81ST STREET | 203 feet to the N | Closed Status Spill (Misc. Spill Cause) |
| 400 | CON EDISON | FO 440 COLUMBUS AVE NO 81 ST | 205 feet to the NNE | Hazardous Waste Generator/Transporter |
| 401 | CON EDISON | FO 446 COLUMBUS AVE | 205 feet to the NNE | Hazardous Waste Generator/Transporter |
| 320 | WEST 80 ST ASSOCIATES | 103 W 80 ST | 212 feet to the NNW | Petroleum Bulk Storage Site |
| 402 | CON EDISON | 108 W 81 ST | 218 feet to the N | Hazardous Waste Generator/Transporter |
| 403 | CON EDISON | FO 108 W 81 ST EO AMSTERDAM AVE | 224 feet to the N | Hazardous Waste Generator/Transporter |
| 404 | CON EDISON | 442 COLUMBUS AVE | 226 feet to the N | Hazardous Waste Generator/Transporter |
| 405 | CONSOLIDATED EDISON | 104 WEST 80 STREET | 230 feet to the NW | Hazardous Waste Generator/Transporter |
| 406 | CONSOLIDATED EDISON | 104 WEST 80 STREET | 230 feet to the NW | Hazardous Waste Generator/Transporter |
| 246 | SPILL NUMBER 0200505 | 25 W 81ST ST | 242 feet to the NE | Closed Status Spill (Misc. Spill Cause) |
| 407 | RUDIN MGMT CO /25 WEST 81 STREET | 25 WEST 81 STREET | 245 feet to the ENE | Hazardous Waste Generator/Transporter |
| 321 | D L R H ASSOC | 117 WEST 79TH ST | 246 feet to the NW | Petroleum Bulk Storage Site |
| 408 | CON EDISON | FO 118 W 79 ST EO AMSTERDAM AVE | 246 feet to the WNW | Hazardous Waste Generator/Transporter |
| 322 | 341 COLUMBUS REALTY CO. LLC | 59 WEST 76TH STREET | 247 feet to the SSW | Petroleum Bulk Storage Site |
| 323 | 118 TENANTS CORP | 118 WEST 79TH STREET | 247 feet to the W | Petroleum Bulk Storage Site |
| 409 | CON EDISON | FO 117 W 79 ST EO AMSTERDAM AVE | 251 feet to the WNW | Hazardous Waste Generator/Transporter |
| 7 | 53 W 76TH ST CONDOMINIUM | 53 W 76TH ST | 252 feet to the SSW | Closed Status Tank Failure |
| 247 | 64 WEST 82ND ST/MANH | 64 WEST 82ND STREET | 252 feet to the NE | Closed Status Spill (Misc. Spill Cause) |
| 43 | APT BLDG TTF | 74 WEST 82ND ST | 253 feet to the NNE | Closed Status Tank Test Failure |
| 248 | 55 WEST 76TH STREET | 55 WEST 76TH STREET | 253 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 249 | HOME/APT | 74 WEST 82 ST | 253 feet to the NNE | Closed Status Spill (Misc. Spill Cause) |
| 250 | 57 W. 76TH STREET | 57 W. 76TH STREET | 253 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 324 | 25 WEST 81ST STREET LLC | 25 WEST 81ST STREET | 258 feet to the NE | Petroleum Bulk Storage Site |
| 410 | CON EDISON | FO 343 COLUMBUS AVE NO 76 ST | 258 feet to the SW | Hazardous Waste Generator/Transporter |
| 325 | WALBER 82ND STREET ASSOCIATES | 80 WEST 82ND ST | 259 feet to the NNE | Petroleum Bulk Storage Site |
| 411 | CON EDISON | OPP 341 COLUMBUS AVE & 76 ST | 259 feet to the SW | Hazardous Waste Generator/Transporter |
| 412 | CONSOLIDATED EDISON | 345 COLUMBUS AVE | 260 feet to the SSW | Hazardous Waste Generator/Transporter |
| 76 | 118 W 79TH ST/MANHATTAN | 118 WEST 79TH STREET | 262 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 326 | 4077 OWNERS CORP | 40 WEST 77 ST | 262 feet to the S | Petroleum Bulk Storage Site |
| 413 | CON EDISON | FO 112 W 81 ST EO AMSTERDAM AVE | 265 feet to the N | Hazardous Waste Generator/Transporter |
| 414 | CONSOLIDATED EDISON | 115 W 77TH ST | 267 feet to the WSW | Hazardous Waste Generator/Transporter |
| 251 | 108 WEST 80TH ST/MANH | 108 WEST 80TH STREET | 272 feet to the NW | Closed Status Spill (Misc. Spill Cause) |
| 327 | ENDICOTT COMMERCIAL UNIT | 440 COLUMBUS AVENUE | 288 feet to the N | Petroleum Bulk Storage Site |
| 328 | ENDICOTT APARTMENT CORP. | 101 WEST 81ST STREET | 288 feet to the N | Petroleum Bulk Storage Site |
| 415 | CON EDISON | 113 W 78 ST | 291 feet to the W | Hazardous Waste Generator/Transporter |
| 77 | GURBUZ RESIDENCE | 101 WEST 81ST ST APT 103 | 293 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 252 | 101 WEST 81ST ST | 101 WEST 81ST ST | 293 feet to the N | Closed Status Spill (Misc. Spill Cause) |
| 253 | ENDICOTT APARTMENT CORP. | 101 WEST 81ST STREET | 293 feet to the N | Closed Status Spill (Misc. Spill Cause) |

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| 254 | APART | 101 WEST 81ST STREET | 293 feet to the N | Closed Status Spill (Misc. Spill Cause) |
| 255 | BASEMENT SPILL | 446 COLUMBUS AV | 293 feet to the N | Closed Status Spill (Misc. Spill Cause) |
| 416 | CON EDISON | FO 114 W 78 ST EO AMSTERDAM AVE | 299 feet to the WSW | Hazardous Waste Generator/Transporter |
| 329 | INTERMEDIATE SCHOOL 44 – MANHATTAN M044 | 100 WEST 77TH STREET | 304 feet to the SW | Petroleum Bulk Storage Site |
| 8 | 123 W. 79TH STREET | 123 W. 79TH STREET | 315 feet to the WNW | Closed Status Tank Failure |
| 417 | CON ED | 340 COLUMBUS AVE | 325 feet to the SW | Hazardous Waste Generator/Transporter |
| 418 | CON ED | 340 COLUMBUS AVE | 325 feet to the SW | Hazardous Waste Generator/Transporter |
| 419 | NYC DEPT OF EDUCATION – I S 44M | 100 W 77TH ST | 325 feet to the SW | Hazardous Waste Generator/Transporter |
| 78 | SPILL NUMBER 0401041 | 32 WEST 82ND ST | 327 feet to the NE | Closed Status Spill (Unk/Other Cause) |
| 256 | SIDEWALK | 32 WEST 82ND ST | 327 feet to the NE | Closed Status Spill (Misc. Spill Cause) |
| 257 | SPILL NUMBER 0104721 | 32 WEST 82ND ST | 327 feet to the NE | Closed Status Spill (Misc. Spill Cause) |
| 420 | CON EDISON | 129 W 80TH ST & AMSTERDAM AV | 332 feet to the NNW | Hazardous Waste Generator/Transporter |
| 421 | CON EDISON | W 82 ST LO COLUMBUS AVE | 335 feet to the NNE | Hazardous Waste Generator/Transporter |
| 422 | CON EDISON | 468 82ND ST & COLUMBUS AVE | 335 feet to the NNE | Hazardous Waste Generator/Transporter |
| 423 | CON EDISON | W 82 ST & COLUMBUS AV | 335 feet to the NNE | Hazardous Waste Generator/Transporter |
| 424 | CON EDISON | N/E/C 82 ST & COLUMBUS AVE | 335 feet to the NNE | Hazardous Waste Generator/Transporter |
| 258 | PUBLIC SCHOOL 44 | 100 WEST 77TH ST | 336 feet to the WSW | Closed Status Spill (Misc. Spill Cause) |
| 425 | CONSOLIDATED EDISON | F/O 43 W 76 E/O COLUMBUS AVE | 336 feet to the SSW | Hazardous Waste Generator/Transporter |
| 259 | COLUMBUS AVE & 76TH ST | COLUMBUS AVE & 76TH ST | 337 feet to the SW | Closed Status Spill (Misc. Spill Cause) |
| 426 | CONSOLIDATED EDISON | 76 ST & COLUMBUS AVE V6001 | 337 feet to the SW | Hazardous Waste Generator/Transporter |
| 427 | CON EDISON | NWC 76 ST & COLUMBUS AVE | 337 feet to the SW | Hazardous Waste Generator/Transporter |
| 428 | CON EDISON | W 76 ST & COLUMBUS AVE | 337 feet to the SW | Hazardous Waste Generator/Transporter |
| 429 | CON EDISON | W 76 ST & COLUMBUS AV | 337 feet to the SW | Hazardous Waste Generator/Transporter |
| 430 | CON EDISON | 76TH ST & COLUMBUS AVE | 337 feet to the SW | Hazardous Waste Generator/Transporter |
| 431 | CON ED | NW/C 76 ST & COLUMBUS AVE | 337 feet to the SW | Hazardous Waste Generator/Transporter |
| 79 | SPILL NUMBER 0313030 | 31 WEST 76TH STREET | 338 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 432 | CON EDISON | 120–28 W 79 & COLUMBUS AVE | 339 feet to the W | Hazardous Waste Generator/Transporter |
| 330 | 3282 OWNERS CORP. | 32 WEST 82ND STREET | 342 feet to the NE | Petroleum Bulk Storage Site |
| 331 | ENNISMORE APARTMENTS INC | 124 WEST 79TH STREET | 347 feet to the W | Petroleum Bulk Storage Site |
| 433 | CON EDISON | FO 120 W 79 ST EO AMSTERDAM AVE | 347 feet to the WNW | Hazardous Waste Generator/Transporter |
| 260 | MARBOROS REALTY | 22 WEST 77TH ST | 353 feet to the S | Closed Status Spill (Misc. Spill Cause) |
| 261 | SPILL NUMBER 0211129 | 22 WEST 77TH ST | 353 feet to the S | Closed Status Spill (Misc. Spill Cause) |
| 332 | 22 WEST 77TH STREET | 22 WEST 77TH STREET | 357 feet to the S | Petroleum Bulk Storage Site |
| 262 | APARTMENT | 15 WEST 81ST ST | 361 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 80 | ENNISMORE APARTMENTS INC | 124 WEST 79TH ST | 362 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 434 | CONSOLIDATED EDISON | 122 WEST 81 STREET | 362 feet to the NNW | Hazardous Waste Generator/Transporter |
| 435 | CON EDISON | 20 WEST 82ND STREET | 374 feet to the ENE | Hazardous Waste Generator/Transporter |
| 333 | ALEIDA REALTY CRP | 73 W 82 ST | 381 feet to the NNE | Petroleum Bulk Storage Site |
| 436 | CONED | 101 W 82 STREET AND COLUMBUS A | 386 feet to the NNE | Hazardous Waste Generator/Transporter |
| 437 | CONSOLIDATED EDISON | 25 W 76TH ST | 388 feet to the S | Hazardous Waste Generator/Transporter |
| 438 | CON EDISON | 25 W 76 ST | 388 feet to the S | Hazardous Waste Generator/Transporter |
| 334 | 15 W 81ST ST TENANTS CORP | 15 W 81ST ST | 394 feet to the ENE | Petroleum Bulk Storage Site |
| 335 | 60 WEST 76TH STREET | 60 WEST 76TH STREET | 394 feet to the SSW | Petroleum Bulk Storage Site |
| 336 | CLIFTON HOUSE OWNERS CORP. | 127 WEST 79TH STREET | 400 feet to the NW | Petroleum Bulk Storage Site |
| 263 | 60 WEST 76TH ST | 60 WEST 76TH ST | 402 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 439 | CON EDISON | 55 W 82 ST & COLUMBUS AVE | 406 feet to the NNE | Hazardous Waste Generator/Transporter |
| 440 | CON EDISON | 127 W 78TH ST | 407 feet to the W | Hazardous Waste Generator/Transporter |
| 441 | CON EDISON | 51 W 82 & COLUMBUS AVE | 407 feet to the NE | Hazardous Waste Generator/Transporter |
| 442 | CON EDISON | 61 W 82 ST & COLUMBUS AVE | 407 feet to the NNE | Hazardous Waste Generator/Transporter |
| 264 | 129 WEST 77TH STREET | 129 WEST 77TH STREET | 409 feet to the WSW | Closed Status Spill (Misc. Spill Cause) |
| 337 | 20 W 77 ST | 20 WEST 77TH STREET | 409 feet to the S | Petroleum Bulk Storage Site |
| 338 | 20TH PCT | 120 WEST 82ND STREET | 410 feet to the N | Petroleum Bulk Storage Site |
| 265 | APT BUILDING | 127 WEST 79 ST | 414 feet to the WNW | Closed Status Spill (Misc. Spill Cause) |

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| 44 | 20 PRECINCT NYPD –DDC | 120 WEST 82ND STREET | 416 feet to the N | Closed Status Tank Test Failure |
| 45 | 20 PRECINCT NYPD –DDC | 120 WEST 82ND STREET | 416 feet to the N | Closed Status Tank Test Failure |
| 81 | 20 RECINCT NYPD –DDC | 120 WEST 82ND STREET | 416 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 443 | CON EDISON | F/O 339 COLUMBUS AVE | 416 feet to the SW | Hazardous Waste Generator/Transporter |
| 266 | APARTMENT COMPLEX | 11 WEST 81ST ST | 423 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 267 | ALLEYWAY – DRUM RUN | 11 W.81ST STREET | 423 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 339 | 100 WEST 76TH STREET | 100 WEST 76TH STREET | 423 feet to the SW | Petroleum Bulk Storage Site |
| 444 | CON EDISON | FO 338 COLUMBUS AVE NO 75 ST | 423 feet to the SW | Hazardous Waste Generator/Transporter |
| 340 | HAYDEN OWNERS CORP | 11 WEST 81ST STREET | 429 feet to the ENE | Petroleum Bulk Storage Site |
| 341 | 4182 TENANTS CORP | 41 WEST 82ND STREET | 434 feet to the NE | Petroleum Bulk Storage Site |
| 268 | 35 W. 82ND ST | 35 W. 82ND STREET | 436 feet to the NE | Closed Status Spill (Misc. Spill Cause) |
| 342 | RESIDENTIAL APARTMENT BUILDING | 35 WEST 82ND STREET | 441 feet to the NE | Petroleum Bulk Storage Site |
| 269 | BASEMENT | 131 WEST 78TH ST | 444 feet to the W | Closed Status Spill (Misc. Spill Cause) |
| 445 | CON EDISON | OPP SIDE 116 W 76 ST | 445 feet to the SW | Hazardous Waste Generator/Transporter |
| 343 | 125 W 76 ST | 125 WEST 76TH STREET | 447 feet to the WSW | Petroleum Bulk Storage Site |
| 446 | CON EDISON | 132 W 81ST ST | 456 feet to the NNW | Hazardous Waste Generator/Transporter |
| 447 | CON EDISON | 16–18 W 82 ST & COLUMBUS AV | 461 feet to the ENE | Hazardous Waste Generator/Transporter |
| 448 | CONSOLIDATED EDISON – SERV BOX 13735 | F/O 26–28 W 76TH ST 7 COLUMBUS AVE | 463 feet to the S | Hazardous Waste Generator/Transporter |
| 449 | CONSOLIDATED EDISON | 29 WEST 82 STREET | 464 feet to the NE | Hazardous Waste Generator/Transporter |
| 450 | CON EDISON | 29 W 82ND ST | 464 feet to the NE | Hazardous Waste Generator/Transporter |
| 451 | CON EDISON | 111 W 82 ST | 471 feet to the N | Hazardous Waste Generator/Transporter |
| 270 | ROXY HARDWARE | 469 COLUMBUS AVE | 477 feet to the NNE | Closed Status Spill (Misc. Spill Cause) |
| 452 | CONSOLIDATED EDISON | 135 W. 78 ST | 478 feet to the W | Hazardous Waste Generator/Transporter |
| 344 | 79TH ST. RESIDENCE CORP. | 135 WEST 79TH STREET | 480 feet to the WNW | Petroleum Bulk Storage Site |
| 453 | CON EDISON | FO 135 78 ST EO AMSTERDAM AVE | 481 feet to the W | Hazardous Waste Generator/Transporter |
| 454 | CON EDISON | 130 W 80TH ST | 483 feet to the NW | Hazardous Waste Generator/Transporter |
| 271 | APARTMENT BUILDING | 135 WEST 79TH ST | 486 feet to the WNW | Closed Status Spill (Misc. Spill Cause) |
| 455 | CONSOLIDATED EDISON | W 78 ST BETW COLUMBUS/AMSTERDAM | 489 feet to the W | Hazardous Waste Generator/Transporter |
| 456 | CONSOLIDATED EDISON | 23 W 82 ST | 496 feet to the NE | Hazardous Waste Generator/Transporter |
| 457 | CON EDISON | 21–23 W 82 ST | 496 feet to the NE | Hazardous Waste Generator/Transporter |
| 345 | 57 WEST 75TH ST | 57 WEST 75TH ST | 499 feet to the SSW | Petroleum Bulk Storage Site |
| 346 | 6–16 WEST 77 STREET | 6 WEST 77TH ST | 500 feet to the S | Petroleum Bulk Storage Site |
| 347 | WEST 82ND OWNERS CORPORATION | 107–111 WEST 82ND STREET | 503 feet to the N | Petroleum Bulk Storage Site |
| 348 | 107–111 W.82 ST.ASSOC. | 109 W 82 ST | 503 feet to the N | Petroleum Bulk Storage Site |
| 349 | N&R REALTY | 471 COLUMBUS AVENUE | 504 feet to the NNE | Petroleum Bulk Storage Site |
| 350 | N & R REALTY CO | 471 COLUMBUS AVE | 504 feet to the NNE | Petroleum Bulk Storage Site |
| 351 | APT BUILDING | 140 W 79TH ST | 511 feet to the WNW | Petroleum Bulk Storage Site |
| 458 | CON EDISON | FO 140 N 79 ST EO AMSTERDAM AVE | 514 feet to the WNW | Hazardous Waste Generator/Transporter |
| 459 | CON EDISON SERVICE BOX 13735 | 26–28 W 76TH ST E OF COLUMBUS AVE | 516 feet to the S | Hazardous Waste Generator/Transporter |
| 460 | 6–16 WEST 77TH STREET CORP | 6–16 W 77TH ST | 518 feet to the S | Hazardous Waste Generator/Transporter |
| 82 | BET. COLUMBUS/ AMSTERDAM | 118 W. 76TH ST. | 520 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 461 | CON EDISON | F/O 20TH W 76TH ST | 524 feet to the S | Hazardous Waste Generator/Transporter |
| 462 | CON EDISON | 26 W 76 ST | 526 feet to the S | Hazardous Waste Generator/Transporter |
| 272 | 473 COLUMBUS AVE/81 & 82 | 473 COLUMBUS AVE/81 & 82 | 528 feet to the NNE | Closed Status Spill (Misc. Spill Cause) |
| 273 | WEST 79TH STREET AND | CENTRAL PARK | 529 feet to the ESE | Closed Status Spill (Misc. Spill Cause) |
| 463 | CON EDISON | FO 9–11 W 81 ST EO COLUMBUS AVE | 529 feet to the E | Hazardous Waste Generator/Transporter |
| 352 | 120 WEST 76TH STREET | 120 WEST 76TH STREET | 530 feet to the SW | Petroleum Bulk Storage Site |
| 353 | WEST SIDE INST SYNG | 120 W 76 ST | 530 feet to the SW | Petroleum Bulk Storage Site |
| 464 | CON EDISON | 47–49 75TH ST & CPW | 531 feet to the SSW | Hazardous Waste Generator/Transporter |
| 83 | SPILL NUMBER 0313954 | 120 WEST 76TH ST. | 533 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 465 | CON EDISON | FO 145 W 79 ST & AMSTERDAM AVE | 534 feet to the WNW | Hazardous Waste Generator/Transporter |
| 354 | 145 W. 79TH STREET OWNERS CORP. | 145 W. 79TH STREET | 537 feet to the WNW | Petroleum Bulk Storage Site |
| 466 | CONSOLIDATED EDISON | OPP 141 W. 78ST | 538 feet to the W | Hazardous Waste Generator/Transporter |

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| 355 | 83RD STREET OWNERS CORP | 46 W 83 STREET | 541 feet to the NE | Petroleum Bulk Storage Site |
| 84 | MANHOLE 57249 | 211 CENTRAL PARK WEST | 542 feet to the ENE | Closed Status Spill (Unk/Other Cause) |
| 274 | 8223 | 211 CENTRAL PARK WEST | 542 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 275 | 211 CENTRAL PARK W/MANH | 211 CENTRAL PARK WEST | 542 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 276 | CENTRAL PARK | 211 CENTRAL PARK WEST | 542 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 467 | CONSOLIDATED EDISON | 43 WEST 75TH ST | 545 feet to the SSW | Hazardous Waste Generator/Transporter |
| 468 | CONSOLIDATED EDISON | 78TH & 8TH AVE | 548 feet to the SE | Hazardous Waste Generator/Transporter |
| 469 | CONSOLIDATED EDISON | 41 W 75TH ST | 551 feet to the SSW | Hazardous Waste Generator/Transporter |
| 470 | CON EDISON | 140 W 80TH ST | 558 feet to the NW | Hazardous Waste Generator/Transporter |
| 471 | CON ED | 140 W 80TH ST | 558 feet to the NW | Hazardous Waste Generator/Transporter |
| 472 | CON EDISON | 34 W 83RD ST | 563 feet to the NE | Hazardous Waste Generator/Transporter |
| 473 | CON EDISON | 143-144 W 78 ST | 563 feet to the W | Hazardous Waste Generator/Transporter |
| 474 | CON EDISON | 143-144 W 78 ST | 563 feet to the W | Hazardous Waste Generator/Transporter |
| 356 | 146 WEST 79 ST | 146 WEST 79TH STREET | 566 feet to the WNW | Petroleum Bulk Storage Site |
| 475 | CONSOLIDATED EDISON | 211 CENTRAL PARK WEST | 567 feet to the ENE | Hazardous Waste Generator/Transporter |
| 476 | CONSOLIDATED EDISON | V8223-CENTRAL PARK WEST | 567 feet to the ENE | Hazardous Waste Generator/Transporter |
| 477 | CONSOLIDATED EDISON | V8223-211 CENTRAL PARK W | 567 feet to the ENE | Hazardous Waste Generator/Transporter |
| 478 | CON EDISON | 219 CENTRAL PARK WEST | 567 feet to the ENE | Hazardous Waste Generator/Transporter |
| 277 | 34-36 WEST 83RD ST | 34-36 WEST 83RD ST | 568 feet to the NE | Closed Status Spill (Misc. Spill Cause) |
| 357 | CHA REALTY LLC (JOSEPH CHADI) | 101 WEST 75 ST. | 572 feet to the SW | Petroleum Bulk Storage Site |
| 358 | JOSEPH CHADI | 101 W 75 ST | 572 feet to the SW | Petroleum Bulk Storage Site |
| 479 | CON EDISON | 98 W 83 ST | 572 feet to the NNE | Hazardous Waste Generator/Transporter |
| 359 | BERESFORD APARTMENTS | 211 CENTRAL PARK WEST | 575 feet to the ENE | Petroleum Bulk Storage Site |
| 480 | CON EDISON | 147-145 W 78 ST | 587 feet to the W | Hazardous Waste Generator/Transporter |
| 481 | CON EDISON | 148 WEST 77TH STREET | 592 feet to the WSW | Hazardous Waste Generator/Transporter |
| 504 | BERESFORD APARTMENTS | 211 CENTRAL PARK W | 594 feet to the ENE | Air Discharge Site |
| 9 | RESIDENCE | 29 WEST 75TH STREET | 598 feet to the SSW | Closed Status Tank Failure |
| 360 | 147 W 79TH ST | 147 WEST 79TH STREET | 598 feet to the WNW | Petroleum Bulk Storage Site |
| 278 | 7,9,11 WEST 82ND ST/MANH | 7,9,11 WEST 82ND STREET | 600 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 279 | 8 OZ IN MANHOLE # 30582 | WEST 75 STREET & COLUMBUS AVE | 600 feet to the SW | Closed Status Spill (Misc. Spill Cause) |
| 482 | CON EDISON | NEC 83 ST & COLUMBUS AVE | 600 feet to the NNE | Hazardous Waste Generator/Transporter |
| 483 | CON EDISON | NWC 83 & COLUMBUS AV | 600 feet to the NNE | Hazardous Waste Generator/Transporter |
| 484 | CON EDISON | W 75TH ST & COLUMBUS AVE | 600 feet to the SW | Hazardous Waste Generator/Transporter |
| 485 | CON EDISON | W 75TH ST & COLUMBUS AVE | 600 feet to the SW | Hazardous Waste Generator/Transporter |
| 486 | CONSOLIDATED EDISON | W 75TH STREET AND COLUMBUS AVE | 600 feet to the SW | Hazardous Waste Generator/Transporter |
| 487 | CONSOLIDATED EDISON | S/W/C W 75 ST & COLUMBUS AVE | 600 feet to the SW | Hazardous Waste Generator/Transporter |
| 488 | CON EDISON | SWC W 75 & COLUMBUS AVE | 600 feet to the SW | Hazardous Waste Generator/Transporter |
| 489 | CON EDISON | S/W/C W 75 ST & COLUMBUS AVVE | 600 feet to the SW | Hazardous Waste Generator/Transporter |
| 361 | FDNY ENGINE CO. 74 | 120 WEST 83RD STREET | 608 feet to the N | Petroleum Bulk Storage Site |
| 362 | 155 WEST 81 STREET ASSOCIATES | 155 WEST 81 STREET | 610 feet to the NNW | Petroleum Bulk Storage Site |
| 363 | 158 WEST 81ST STREET | 158 WEST 81ST STREET | 614 feet to the NNW | Petroleum Bulk Storage Site |
| 85 | 7 WEST 82ND ST/MANHATTAN | 7 WEST 82ND STREET | 617 feet to the ENE | Closed Status Spill (Unk/Other Cause) |
| 364 | 14-16 WEST 76TH ST., LLC | 14-16 WEST 76TH STREET | 617 feet to the S | Petroleum Bulk Storage Site |
| 490 | CONSOLIDATED EDISON | 146 WEST 80 STREET | 617 feet to the NW | Hazardous Waste Generator/Transporter |
| 86 | TOWNHOUSE | 144 WEST 82ND ST | 621 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 491 | NYC BOARD OF EDUCATION | 160 WEST 78TH STREET | 622 feet to the W | Hazardous Waste Generator/Transporter |
| 365 | CENTRAL PARK REALTY | 14 W 76 ST | 623 feet to the S | Petroleum Bulk Storage Site |
| 366 | 150 WEST 79 CORP | 150 WEST 79TH STREET | 625 feet to the WNW | Petroleum Bulk Storage Site |
| 492 | CON EDISON | FO 150 W 79 ST & AMSTERDAM AVE | 626 feet to the WNW | Hazardous Waste Generator/Transporter |
| 493 | CON EDISON | FO 150 W 79 ST & AMSTERDAM AVE | 626 feet to the WNW | Hazardous Waste Generator/Transporter |
| 494 | CON EDISON | 151 W 78 ST | 627 feet to the W | Hazardous Waste Generator/Transporter |
| 367 | RESIDENTIAL BLDG | 127 W 82 ST | 628 feet to the N | Petroleum Bulk Storage Site |
| 368 | GREYSTONE CONDOMINIUM | 127 WEST 82ND STREET | 628 feet to the N | Petroleum Bulk Storage Site |

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| 369 | 151 W 78 ST | 151 WEST 78TH STREET | 630 feet to the W | Petroleum Bulk Storage Site |
| 495 | CON EDISON | F/O 35 W 75 ST | 634 feet to the SSW | Hazardous Waste Generator/Transporter |
| 370 | P.S. 87 – MANHATTAN (M087) | 160 WEST 78TH STREET | 638 feet to the W | Petroleum Bulk Storage Site |
| 371 | 146 W 82 ST OWNERS CORP | 146 WEST 82ND STREET | 639 feet to the NNW | Petroleum Bulk Storage Site |
| 372 | 481 COLUMBUS ASSOC. | 73 W 83 ST | 640 feet to the NNE | Petroleum Bulk Storage Site |
| 496 | CON EDISON | OPP 5 W 82 ST & COLUMBUS AV | 641 feet to the ENE | Hazardous Waste Generator/Transporter |
| 497 | CON EDISON | OPP 5 W 82ND ST & COLUMBUS AVE | 641 feet to the ENE | Hazardous Waste Generator/Transporter |
| 498 | CON EDISON | FO 152 W 78 ST | 646 feet to the W | Hazardous Waste Generator/Transporter |
| 499 | CON EDISON | FO 148 W 78 ST | 646 feet to the W | Hazardous Waste Generator/Transporter |
| 500 | CONSOLIDATED EDISON | FRONT OF 104 WEST 75 STREET | 647 feet to the SW | Hazardous Waste Generator/Transporter |
| 501 | CON EDISON | 18 W 83 ST & COLUMBUS | 649 feet to the NE | Hazardous Waste Generator/Transporter |
| 502 | CON EDISON | FO 109 W 83 ST & AMSTERDAM AVE | 654 feet to the N | Hazardous Waste Generator/Transporter |
| 503 | CONSOLIDATED EDISON | SB 13554 F/O 106 W 75TH ST | 654 feet to the SW | Hazardous Waste Generator/Transporter |
| 373 | HARTFORD REALTY COMPANY, LLC | 60 W 75 STREET | 659 feet to the SSW | Petroleum Bulk Storage Site |
| 87 | SPILL NUMBER 0107348 | 160 WEST 78TH ST | 667 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 88 | AMERICAN MUSEUM HISTORY | 81ST ST & CENTRAL PK WEST | 675 feet to the E | Closed Status Spill (Unk/Other Cause) |
| 89 | 79TH ST TRANSVERSE | 79TH ST TRANSVERSE | 675 feet to the E | Closed Status Spill (Unk/Other Cause) |
| 90 | SPILL NUMBER 0101436 | CENTRAL PARK W/ W 81ST ST | 675 feet to the E | Closed Status Spill (Unk/Other Cause) |
| 91 | SPILL NUMBER 9914163 | W 77TH ST/CENT PARK W | 676 feet to the SSE | Closed Status Spill (Unk/Other Cause) |
| 92 | BASMENT | 148 W 76TH ST | 686 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 10 | 102 WEST 75TH ST | 102 WEST 75TH ST | 699 feet to the SW | Closed Status Tank Failure |
| 11 | 100 WEST 75TH STREET | 100 WEST 75TH STREET | 699 feet to the SW | Closed Status Tank Failure |
| 12 | APARTMENT | 150 WEST 82ND STREET | 702 feet to the NNW | Closed Status Tank Failure |
| 46 | 150 WEST 82 STREET REALTY ASSOC, LLC | 150 WEST 82ND ST | 702 feet to the NNW | Closed Status Tank Test Failure |
| 93 | 163 WEST 76TH ST/MANH | 163 WEST 76TH STREET | 757 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 13 | 139 WEST 82ND ST/MANH | 139 WEST 82ND STREET | 772 feet to the NNW | Closed Status Tank Failure |
| 94 | 55 W 74 ST | 55 W 74TH ST | 778 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 95 | DECLERCQ RESIDENCE | 48 WEST 84TH STREET | 784 feet to the NE | Closed Status Spill (Unk/Other Cause) |
| 47 | WEST 83RD ST REALTY CORP | 146 WEST 83RD ST | 792 feet to the N | Closed Status Tank Test Failure |
| 96 | MULTI-DWELLING RESIDENCE | 171 W. 81TH ST | 814 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 4 | CON ED | 33 W 74TH ST | 827 feet to the SSW | Active Haz Spill (Unknown/Other Cause) |
| 280 | 27 W 74TH STREET | 27 W 74TH STREET | 849 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 97 | PARKING GARAGE | 150 WEST 83RD STREET | 850 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 98 | 215875; 136 W 75 STREET | 136 W 75 STREET | 862 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 48 | ABOVE GROUND TANK TTF | 172 WEST 79TH | 865 feet to the WNW | Closed Status Tank Test Failure |
| 99 | 140 W 75TH ST | 140 W 75TH ST | 889 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 100 | W 83RD ST& CENT PARK WEST | W 83RD ST& CENT PARK WEST | 898 feet to the ENE | Closed Status Spill (Unk/Other Cause) |
| 101 | MICHAEL DONOVAN | 175 WEST 76TH ST | 901 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 281 | BASEMENT | 175 W 76TH ST | 901 feet to the W | Closed Status Spill (Misc. Spill Cause) |
| 282 | 54 WEST 74TH ST | 54 WEST 74TH ST | 930 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 283 | 54 WEST 74TH STREET CONDO | 54 WEST 74TH STREET | 930 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 284 | RESIDENT | 54 WEST 74TH STREET | 930 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 102 | BROKEN DUCT FOUND IN EXCAVATION | 52 WEST 74TH STREET | 939 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 103 | 135 WEST 74TH ST | 135 WEST 74TH ST | 947 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 104 | MANHOLE #25889 | AMSTERDAM AV & 80TH ST | 949 feet to the NW | Closed Status Spill (Unk/Other Cause) |
| 285 | VAULT #6342 | IFO 453 AMSTERDAM AVE | 959 feet to the NNW | Closed Status Spill (Misc. Spill Cause) |
| 105 | VACANT BUILDING | 36 WEST 74TH ST. | 964 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 106 | MANHOLE 29424 | W 75TH ST & CEN PRK W | 965 feet to the S | Closed Status Spill (Unk/Other Cause) |
| 107 | 214656; WEST 75 ST AND CENTRAL PARK WEST | WEST 75 ST AND CENTRAL PARK WEST | 965 feet to the S | Closed Status Spill (Unk/Other Cause) |
| 108 | MANHOLE #2119 | 475 AMSTERDAM AVE | 992 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 14 | APARTMENT BUIDLING | 15 WEST 84TH STREET | 1003 feet to the NE | Closed Status Tank Failure |
| 109 | LOSS TO ROADWAY | 82ND AND AMSTERDAM | 1004 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 110 | MANHOLE 13704 | 76TH/AMSTERDAM | 1007 feet to the WSW | Closed Status Spill (Unk/Other Cause) |

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| 111 | MANHOLE 13705 | 76TH ST/AMSTERDAM | 1007 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 49 | APT BLDG | 150 WEST 84TH ST | 1017 feet to the N | Closed Status Tank Test Failure |
| 112 | 214793; 141-150 CENTRAL PARK WEST | 141-150 CENTRAL PARK WEST | 1020 feet to the S | Closed Status Spill (Unk/Other Cause) |
| 50 | COMMERCIAL BUILDING | 200 W. 78TH ST | 1021 feet to the W | Closed Status Tank Test Failure |
| 113 | 215460; 424-246 AMSTERDAM AVENUE | 424-246 AMSTERDAM AVENUE | 1037 feet to the NW | Closed Status Spill (Unk/Other Cause) |
| 114 | COMMERCIAL/DWELLING | 424 AMSTERDAM AVE | 1038 feet to the NW | Closed Status Spill (Unk/Other Cause) |
| 115 | HOUSE | 67 WEST 73RD ST | 1040 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 116 | BROWNSTONE | 52 W. 85TH ST APT 1R | 1052 feet to the NE | Closed Status Spill (Unk/Other Cause) |
| 51 | APARTMENT BUILDING | 202 WEST 78TH ST | 1055 feet to the W | Closed Status Tank Test Failure |
| 117 | VAULT 9190/8884/9463 | 200 WEST 79TH ST | 1064 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 286 | 200 WEST 79TH ST/MANH | 200 WEST 79TH STREET | 1064 feet to the WNW | Closed Status Spill (Misc. Spill Cause) |
| 15 | 201 WEST 77TH STREET | 201 WEST 77TH STREET | 1065 feet to the W | Closed Status Tank Failure |
| 16 | APT COMPLEX | 10 WEST 74TH ST | 1066 feet to the S | Closed Status Tank Failure |
| 118 | 200 W. 82ND ST | 200 W. 82ND ST | 1081 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 119 | PARKING GARAGE | 348-354 AMSTERDAM AVE | 1097 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 17 | 24 WEST 85TH ST/MANH | 24 WEST 85TH STREET | 1116 feet to the NE | Closed Status Tank Failure |
| 120 | NORTHEAST CORNER | COLUMBUS AVE/EAST 73RD ST | 1126 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 52 | LEWIS BRANDEIS HIGH SCHOO | 145 WEST 84TH STREET | 1132 feet to the N | Closed Status Tank Test Failure |
| 18 | EXXONMOBIL | 332 AMSTERDAM AVENUE | 1138 feet to the W | Closed Status Tank Failure |
| 19 | EXXONMOBIL | 332 AMSTERDAM AVENUE | 1138 feet to the W | Closed Status Tank Failure |
| 20 | EXXONMOBIL | 332 AMSTERDAM AVENUE | 1138 feet to the W | Closed Status Tank Failure |
| 21 | EXXONMOBIL | 332 AMSTERDAM AVENUE | 1138 feet to the W | Closed Status Tank Failure |
| 53 | EXXON CORP | 332 AMSTERDAM AVENUE | 1138 feet to the W | Closed Status Tank Test Failure |
| 121 | 200 WEST 76TH ST | 332 AMSTERDAM AVENUE | 1138 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 22 | 135 CENTRAL PARK W | 135 CENTRAL PK W | 1175 feet to the S | Closed Status Tank Failure |
| 122 | HERTZ RENT A CAR | 210 W. 77TH ST. | 1176 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 54 | APRT | 141 WEST 73RD STREET | 1182 feet to the SW | Closed Status Tank Test Failure |
| 55 | NATIONAL CAR RENTAL SITE | 219 WEST 77TH STREET | 1228 feet to the W | Closed Status Tank Test Failure |
| 123 | CAR RENTAL | 221-223 W77TH ST | 1228 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 124 | NATIONAL CAR RENTAL | 219 WEST 77TH STREET | 1228 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 125 | APARTMENT 1-1 | 101 WEST 85 STREET | 1231 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 126 | 101 WEST 85TH STREET | 101 WEST 85TH STREET | 1231 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 127 | IN FRONT OF ON WALK | 157 WEST 73RD ST | 1232 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 128 | SPILL NUMBER 0209565 | 126 W 73RD ST | 1258 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 56 | AVIS RENT A CAR | 216 W 76TH ST | 1275 feet to the W | Closed Status Tank Test Failure |
| 129 | AVIS RENT A CAR | 216 WEST 76TH STREET | 1275 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 130 | AVIS | 216 WEST 76TH ST | 1275 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 131 | COMMERCIAL BUILDING | 216 WEST 76TH STREET | 1275 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 132 | STREET | AMSTERDAM AVE AT WEST 74T | 1283 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 23 | OPERA APARTMENTS | 2166 BROADWAY | 1289 feet to the W | Closed Status Tank Failure |
| 133 | THE OPERA OWNERS INC | 2166 BROADWAY | 1289 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 134 | OPERA APARTMENTS | 2166 BROADWAY | 1289 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 2 | TTF | 215 WEST 75TH ST | 1299 feet to the WSW | Active Tank Test Failure |
| 24 | 27 WEST 72ND ST/MANH | 27 WEST 72ND STREET | 1299 feet to the SSW | Closed Status Tank Failure |
| 135 | VAULT #V3716 | 27 WEST 72ND ST | 1299 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 136 | MANHOLE #59227 | 215 W.76TH ST | 1299 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 137 | CENTRLA PARK WEST&85TH ST | CENTRAL PARK WEST&85TH ST | 1309 feet to the NE | Closed Status Spill (Unk/Other Cause) |
| 57 | APT BLD TTF | 101 WEST 72ND ST | 1311 feet to the SW | Closed Status Tank Test Failure |
| 138 | COMMERICAL PROPERTY | 40 WEST 86TH ST | 1318 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 139 | 28-30 W. 86TH ST. | 28-30 W. 86TH ST. | 1326 feet to the NE | Closed Status Spill (Unk/Other Cause) |
| 140 | AVIS RENT A CAR | 219 W. 76TH STREET | 1340 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 141 | 121 WEST 72ND STREET | 121 W 72ND ST | 1341 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 25 | 2130 BROADWAY/MANH | 2130 BROADWAY | 1343 feet to the WSW | Closed Status Tank Failure |

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| 142 | MANHOLE 29419 | CENTRAL PK WEST | 1356 feet to the S | Closed Status Spill (Unk/Other Cause) |
| 143 | 2222 BROADWAY/FILENES BASEMENT | 2222 BROADWAY | 1366 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 144 | 1 W 72ND ST/DAKOTA | 1 W 72ND ST/DAKOTA | 1368 feet to the S | Closed Status Spill (Unk/Other Cause) |
| 287 | 10 WEST 86TH ST | 10 WEST 86TH ST | 1376 feet to the NE | Closed Status Spill (Misc. Spill Cause) |
| 288 | 160 WEST 73RD STREET | 160 WEST 73RD STREET | 1406 feet to the SW | Closed Status Spill (Misc. Spill Cause) |
| 145 | MAN HOLE #27479 | WEST 78 STREET AND BROADWAY | 1473 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 146 | WEST 74TH ST/BROADWAY | WEST 74TH ST/BROADWAY | 1493 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 289 | WEST 74TH ST/ BRODWAY | WEST 74TH ST/ BROADWAY | 1493 feet to the WSW | Closed Status Spill (Misc. Spill Cause) |
| 26 | BANCROFT OWNERS INC | 40 W 72ND STREET | 1507 feet to the SSW | Closed Status Tank Failure |
| 58 | BASEMENT | 12 WEST 72ND ST | 1555 feet to the SSW | Closed Status Tank Test Failure |
| 5 | 86 STREET TRANSVERSE DPR –DDC | 86TH STREET & TRANSVERSE ROAD | 1560 feet to the NE | Active Haz Spill (Unknown/Other Cause) |
| 147 | 86 STREET TRANSVERSE DPR –DDC | 86TH STREET & TRANSVERSE ROAD | 1560 feet to the NE | Closed Status Spill (Unk/Other Cause) |
| 148 | SERVICE BOX 13680 | 241 WEST 76 ST | 1562 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 149 | APARTMENTS | 235 WEST 76TH ST | 1562 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 150 | CONDO 235 W 75TH ST | 235 W.75TH ST | 1573 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 151 | 235 W. 75TH ST | 235 WEST 75TH ST | 1573 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 152 | SPILL NUMBER 0301510 | 2159 BROADWAY | 1573 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 59 | BELLECLAIRE HOTEL | 250 WEST 77TH STREET | 1577 feet to the W | Closed Status Tank Test Failure |
| 60 | BELLECLAIRE HOTEL | 250 WEST 77TH ST | 1577 feet to the W | Closed Status Tank Test Failure |
| 153 | APARTMENT COMPLEX | 250 W 77TH ST | 1577 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 61 | TTF | 233 WEST 77TH STREET | 1586 feet to the W | Closed Status Tank Test Failure |
| 154 | CO-OPERATIVE | 212 W.85TH ST | 1609 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 155 | SPILL NUMBER 9714534 | 152 WEST 72ND ST – APT 5B | 1611 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 156 | 148 WEST 72ND ST | 148 WEST 72ND ST | 1611 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 157 | SPILL NUMBER 0006084 | 64 W 87TH ST | 1613 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 158 | MANHOLE #27450 | 73RD ST/BROADWAY | 1623 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 290 | APARTMENT BUILDING | 203 W. 85TH ST. | 1630 feet to the N | Closed Status Spill (Misc. Spill Cause) |
| 62 | CONDO 241 W 75TH ST | 241 W.75TH ST | 1647 feet to the W | Closed Status Tank Test Failure |
| 159 | APARTMENT | 241 WEST 75TH ST | 1647 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 160 | 15 GAL ANTIFREEZE IN MANHOLE #12879 | 17 WEST 71 STREET | 1668 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 161 | SB12896 | 17 WEST 71 ST | 1668 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 6 | BASEMENT | 166 W 72ND ST | 1693 feet to the SW | Active Haz Spill (Unknown/Other Cause) |
| 63 | APARTMENT BUILDING – TTF | 166 WEST 72ND STREET | 1693 feet to the SW | Closed Status Tank Test Failure |
| 162 | MANHOLE #25950 | 86TH ST & AMSTERDAM AV | 1699 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 27 | 2109 BROADWAY | 2109 BROADWAY | 1700 feet to the WSW | Closed Status Tank Failure |
| 28 | 2109 BROADWAY | 2109 BROADWAY | 1700 feet to the WSW | Closed Status Tank Failure |
| 29 | CONDO 245 W.75TH ST | 245 W.75TH ST | 1705 feet to the W | Closed Status Tank Failure |
| 163 | 245 WEST 75TH STREET/ NEW | 245 WEST 75TH STREET | 1705 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 164 | APTHORP BUILDING | 252 WEST 79TH ST | 1705 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 165 | DRUM RUN | 213 WEST 85TH STREET | 1731 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 166 | SPILL NUMBER 0311725 | 159 WEST 71ST ST/BTWN COL | 1745 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 167 | SPILL NUMBER 9908618 | 400 WEST END AVE | 1755 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 30 | SPILL NUMBER 9913986 | 37 WEST 87TH ST | 1775 feet to the NE | Closed Status Tank Failure |
| 168 | SPILL NUMBER 9712910 | WEST 72ND ST & BROADWAY | 1778 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 169 | APT BLDG | 342 WEST END AVE | 1778 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 170 | CENTRAL PARK/THE LAKE | 59TH ST/110TH ST | 1781 feet to the SSE | Closed Status Spill (Unk/Other Cause) |
| 171 | CENTRAL PARK LAKE | WEST 79TH STREET+CENTRAL | 1781 feet to the SSE | Closed Status Spill (Unk/Other Cause) |
| 172 | CENTRAL PARK LAKE,WEST | CENTRAL PARK LAKE,WEST | 1781 feet to the SSE | Closed Status Spill (Unk/Other Cause) |
| 291 | CENTRAL PARK LAKE | CENTRAL PARK LAKE | 1781 feet to the SSE | Closed Status Spill (Misc. Spill Cause) |
| 173 | DRUM RUN | 119 WEST 87TH STREET | 1791 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 174 | BUILD ING | 23 WEST 87TH STREET | 1793 feet to the NE | Closed Status Spill (Unk/Other Cause) |
| 64 | 176 WEST 87TH STREET | 176 WEST 87TH STREET | 1824 feet to the N | Closed Status Tank Test Failure |
| 175 | MANHOLE 27538 | W 85TH ST/BROADWAY | 1827 feet to the NNW | Closed Status Spill (Unk/Other Cause) |

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| 176 | 2350 BROADWAY | 2350 BROADWAY | 1830 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 177 | W79TH ST / WEST END AVE | W79TH ST / WEST END AVE | 1851 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 178 | WEST END AV&W 79TH ST | WEST END AV&W 79TH ST | 1851 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 179 | MANHOLE 61728 | WEST END AV/W 77TH ST | 1851 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 180 | MANHOLE 61728 | WESTEND AVE/W 77TH ST | 1851 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 181 | SPILL NUMBER 0011976 | W 71S ST / CENTRAL PARK W | 1856 feet to the S | Closed Status Spill (Unk/Other Cause) |
| 182 | IN APARTMENT | 114 W 88TH ST – APT 1 | 1890 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 183 | 2071 BROADWAY | 2071 BROADWAY | 1902 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 184 | 101 CENTRAL PARK WEST | 101 CENTRAL PARK WEST | 1910 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 185 | 6 BLOCK AREA | W 71ST / BROADWAY | 1915 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 186 | SPILL NUMBER 0209914 | 425 WEST END AVE | 1927 feet to the NW | Closed Status Spill (Unk/Other Cause) |
| 187 | 355 WEST END AVE | 355 WEST END AVE | 1932 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 188 | 389 WEST END AVENUE | 389 WEST END AVENUE | 1941 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 189 | MANHOLE 62564 | WEST END AVE / WEST 83RD | 1946 feet to the NW | Closed Status Spill (Unk/Other Cause) |
| 31 | APARTMENTS | 441 WEST END AV (80/81) | 1971 feet to the NW | Closed Status Tank Failure |
| 190 | 305 – IN BROOKLYN OR MANHATTAN? | 305 W 79TH ST | 1989 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 191 | APT BLD. | 365 WEST END AVE | 1991 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 65 | TTF – APARTMENT COMPLEX | 465 WEST END AVENUE | 2005 feet to the NW | Closed Status Tank Test Failure |
| 66 | ABOVE GROUND | 473 WEST END AVE | 2033 feet to the NW | Closed Status Tank Test Failure |
| 32 | TZC | 45 WEST 88TH STREET | 2036 feet to the NE | Closed Status Tank Failure |
| 192 | MANHOLE # 49901 | W 84 ST / WEST END AVE | 2039 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 292 | FEEDER M51 | WEST END AVE / 84 STREET | 2039 feet to the NNW | Closed Status Spill (Misc. Spill Cause) |
| 193 | COMMERCIAL PROPERTY/APT BLDG | 30 WEST 70TH ST | 2045 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 67 | RESIDENTS | 307 WEST 79 STRET | 2063 feet to the WNW | Closed Status Tank Test Failure |
| 194 | MANHOLE TM–1549 | IFO 154 W70TH ST | 2067 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 3 | TUZ MANAGMENT | 595 COLUMBUS AVE | 2101 feet to the NNE | Active Tank Test Failure |
| 195 | VAULT #V1826 | WEST 72ND STREET | 2101 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 196 | THE ORMANDE | 2030 BROADWAY | 2116 feet to the SW | Closed Status Spill (Unk/Other Cause) |
| 197 | 319 WEST 77TH STREET. | 319 WEST 77TH STREET. | 2121 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 198 | 100 WEST 89TH ST/MANH | 100 WEST 89TH STREET | 2129 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 199 | MANHOLE 61729 | WEST END AV / W 85TH ST | 2163 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 200 | MAN HOLE #61729 | WEST END AV & W 85TH ST | 2163 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 293 | APARTMENT BUILDING | 505 WEST END AVE | 2178 feet to the NNW | Closed Status Spill (Misc. Spill Cause) |
| 201 | 91 CENTRAL PARK WEST | 11 WEST 69TH STREET | 2188 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 202 | 216301; 321 W 82 ST AND RIVERSIDE DR | 321 W 82 ST AND RIVERSIDE DR | 2191 feet to the NW | Closed Status Spill (Unk/Other Cause) |
| 203 | VERIZON MANHOLE | WEST 87TH ST & BROADWAY | 2195 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 204 | 98 RIVERSIDE DRIVE | 98 RIVERSIDE DRIVE | 2204 feet to the NW | Closed Status Spill (Unk/Other Cause) |
| 294 | STREET | WEST 69TH ST/COLUMBUS AV | 2216 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 205 | CHRISTIAN COMMUNITY | 309 W.74TH ST | 2239 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 206 | MAN HOLE 61729 | WEST END AVE AND 85 AND 86 ST | 2242 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 207 | MANHOLE 61729 | WEST END AV/BET 85 & 86 | 2242 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 33 | 52 RIVERSIDE DRIVE | 52 RIVERSIDE DRIVE | 2291 feet to the WNW | Closed Status Tank Failure |
| 68 | 52 RIVERSIDE DR | 52 RIVERSIDE DR | 2291 feet to the WNW | Closed Status Tank Test Failure |
| 69 | RESIDENTS TTF | 277 WEST END AVE | 2299 feet to the WSW | Closed Status Tank Test Failure |
| 34 | 205 W 88TH ST/MANHATTAN | 205 WEST 88TH STREET | 2308 feet to the N | Closed Status Tank Failure |
| 208 | SPILL NUMBER 9814552 | RIVERSIDE DR / W 79TH ST | 2312 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 209 | 218418; W 86 ST AND WEST END AVE | W 86 ST AND WEST END AVE | 2324 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 210 | VAULT 5837 | WEST 86TH ST AND WEST END AVE | 2324 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 295 | FEEDER M52 | WEST END AVE / 86TH ST | 2324 feet to the NNW | Closed Status Spill (Misc. Spill Cause) |
| 211 | 218615; W END AVE AND 72ND ST | W END AVE AND 72ND ST | 2326 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 296 | WISE TOWERS | 49 WEST 89TH STREET | 2326 feet to the NNE | Closed Status Spill (Misc. Spill Cause) |
| 212 | COMMERCIAL BUILDING | 11 RIVERSIDE DRIVE | 2329 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 297 | APARTMENT BUILDING | 19 WEST 89TH STREET | 2332 feet to the NE | Closed Status Spill (Misc. Spill Cause) |

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|-----|----------------------------------|---------------------------|----------------------|---|
| 213 | 600 COLUMBUS | 600 COLUMBUS AVE. | 2362 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 298 | TRANSFORMER | W 78TH ST & RIVERSIDE DR | 2367 feet to the WNW | Closed Status Spill (Misc. Spill Cause) |
| 214 | ROADWAY | 2 WEST 69TH ST | 2382 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 215 | RIVERSIDE DR FROM 76TH | TO 79TH | 2389 feet to the WNW | Closed Status Spill (Unk/Other Cause) |
| 216 | RAFFERTY RES | 336 WEST 84TH ST | 2400 feet to the NW | Closed Status Spill (Unk/Other Cause) |
| 217 | SEVEN GALLONS OF HYDRAULIC FLUID | 53 WEST 68 STREET | 2401 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 218 | IN FRONT 545 WEST END AVE | FRONT 545 WEST END AVE | 2405 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 299 | ROADSIDE | 2000 BROADWAY | 2413 feet to the SW | Closed Status Spill (Misc. Spill Cause) |
| 1 | 267-273 WEST 87TH STREET | 267-273 WEST 87TH STREET | 2415 feet to the N | Brownfields Site |
| 219 | PARKING GARAGE | 267-273 W87 ST | 2422 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 220 | SPILL NUMBER 9912480 | 10 WEST 90TH ST | 2433 feet to the NE | Closed Status Spill (Unk/Other Cause) |
| 35 | OCONNOR HOME | 264 WEST 71 STREET | 2439 feet to the WSW | Closed Status Tank Failure |
| 36 | TRANSFORMER VAULT #5535 | 210 W 89TH ST | 2441 feet to the N | Closed Status Tank Failure |
| 37 | APT BUILDING | 210 WEST 89TH ST | 2441 feet to the N | Closed Status Tank Failure |
| 221 | 210 WEST 89TH ST VAULT #5535 | 210 WEST 89 TH ST | 2441 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 222 | MANHOLE 5535 | 210 WEST 89TH ST | 2441 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 38 | SPILL NUMBER 9911904 | 2 WEST 90TH ST | 2449 feet to the NE | Closed Status Tank Failure |
| 223 | SPILL NUMBER 0101768 | 20 RIVERSIDE DR | 2455 feet to the W | Closed Status Spill (Unk/Other Cause) |
| 224 | APARTMENT BUIDLING | 255 WEST END AVE | 2475 feet to the WSW | Closed Status Spill (Unk/Other Cause) |
| 225 | SERVICE BOX #15862 | W. 90TH ST./COLUMBUS AVE. | 2478 feet to the NNE | Closed Status Spill (Unk/Other Cause) |
| 39 | 240 WEST END AVE | 240 WEST END AVE | 2498 feet to the WSW | Closed Status Tank Failure |
| 40 | PRIVATE RESIDENCE | 240 WEST END AVE | 2498 feet to the WSW | Closed Status Tank Failure |
| 70 | 310 WEST 86TH ST | 310- 320 WEST 86TH STREET | 2506 feet to the NNW | Closed Status Tank Test Failure |
| 300 | 144 WEST 90TH STREET | 144 WEST 90TH STREET | 2508 feet to the NNE | Closed Status Spill (Misc. Spill Cause) |
| 226 | IFO | 562 WEST END AV | 2514 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 227 | 562 WEST END AVE | 562 WEST END AVE | 2514 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 228 | EXCAVATION SITE | 562 WESTEND AVE | 2514 feet to the NNW | Closed Status Spill (Unk/Other Cause) |
| 229 | AMSTERDAM AV | BET W.89TH & W.90TH ST | 2528 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 301 | VAULTS V9112/V9328/V9500/SB12447 | WEST 68TH ST AND BROADWAY | 2532 feet to the SW | Closed Status Spill (Misc. Spill Cause) |
| 230 | 74 WEST 68 ST | 74 W 68TH ST | 2550 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 231 | SPILL NUMBER 0202046 | 574 WEST END AV | 2570 feet to the N | Closed Status Spill (Unk/Other Cause) |
| 302 | ON SOUTH SIDE OF WEST 68 STREET | BETWEEN AMSTERDAM AVE AND | 2582 feet to the SW | Closed Status Spill (Misc. Spill Cause) |
| 232 | IN ROADWAY | 20 W. 68TH ST | 2598 feet to the SSW | Closed Status Spill (Unk/Other Cause) |
| 41 | 1995 BROADWAY | 1995 BROADWAY | 2625 feet to the SW | Closed Status Tank Failure |
| 233 | 1995 BROADWAY | 1995 BROADWAY | 2625 feet to the SW | Closed Status Spill (Unk/Other Cause) |

Report Update Summary

American Museum of Natural History, New York, NY 10024

New Sites Identified In This Updated Report

| TT-ID | MAP-ID | FACILITY ID | FACILITY STREET | DATABASE |
|---------------|--------|--------------|--------------------------------|---|
| 320A-0004-384 | 1 | C231096 | 267-273 WEST 87TH STREET | Brownfield Cleanup Program |
| 520A-0308-993 | 260 | 1501064 | 22 WEST 77TH ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0309-017 | 4 | 1502443 | 33 W 74TH ST | Active Haz Spills (Unknown Causes or Other Causes) |
| 520A-0309-046 | 145 | 1500952 | WEST 78 STREET AND BROADWAY | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0309-050 | 219 | 1500997 | 267-273 W87 ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0310-632 | 206 | 1502126 | WEST END AVE AND 85 AND 86 ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0313-198 | 6 | 1506947 | 166 W 72ND ST | Active Haz Spills (Unknown Causes or Other Causes) |
| 520A-0313-273 | 74 | 1510616 | 101 WEST 78TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0313-292 | 123 | 1505465 | 221-223 W77TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 740A-0121-076 | 496 | NYP004657243 | OPP 5 W 82 ST & COLUMBUS AV | Hazardous Waste Generators, Transporters |
| 740A-0121-166 | 497 | NYP004667259 | OPP 5 W 82ND ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0136-857 | 375 | NYP004739587 | W 80TH ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0136-959 | 417 | NYP004762563 | 340 COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0137-005 | 404 | NYP004771382 | 442 COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0137-045 | 418 | NYP004776233 | 340 COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0137-147 | 446 | NYP004789236 | 132 W 81ST ST | Hazardous Waste Generators, Transporters |
| 740A-0137-341 | 401 | NYP004771267 | FO 446 COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0137-686 | 431 | NYP004776241 | N/W/C 76 ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0142-422 | 440 | NYP004831182 | 127 W 78TH ST | Hazardous Waste Generators, Transporters |
| 740A-0142-561 | 470 | NYP004842635 | 140 W 80TH ST | Hazardous Waste Generators, Transporters |
| 740A-0142-745 | 471 | NYP004853350 | 140 W 80TH ST | Hazardous Waste Generators, Transporters |
| 740A-0145-078 | 396 | NYP000225490 | 101 W 78TH ST | Hazardous Waste Generators, Transporters |

Sites With Data Changes Identified In This Updated Report

| TT-ID | MAP-ID | FACILITY ID | FACILITY STREET | DATABASE |
|---------------|--------|-------------|-------------------------------|---|
| 520A-0089-860 | 122 | 0706612 | 210 W. 77TH ST. | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0089-887 | 235 | 0101318 | W. 78TH ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0089-978 | 279 | 0613236 | WEST 75 STREET & COLUMBUS AVE | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0090-045 | 217 | 0705876 | 53 WEST 68 STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0090-143 | 146 | 9509545 | WEST 74TH ST/BROADWAY | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0090-154 | 178 | 9714476 | WEST END AV&W 79TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0090-296 | 160 | 0701081 | 17 WEST 71 STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0090-340 | 95 | 0607638 | 48 WEST 84TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0090-348 | 54 | 0608521 | 141 WEST 73RD STREET | Closed Status Tank Test Failures |
| 520A-0090-375 | 224 | 0610885 | 255 WEST END AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0090-479 | 9 | 0600431 | 29 WEST 75TH STREET | Closed Status Tank Failures |
| 520A-0090-726 | 90 | 0101436 | CENTRAL PARK W/ W 81ST ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0090-817 | 294 | 0307135 | WEST 69TH ST/COLUMBUS AV | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0090-836 | 225 | 0405889 | W. 90TH ST./COLUMBUS AVE. | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-009 | 175 | 9814968 | W 85TH ST/BROADWAY | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-161 | 190 | 0009084 | 305 W 79TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-162 | 33 | 0009236 | 52 RIVERSIDE DRIVE | Closed Status Tank Failures |

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| TT-ID | MAP-ID | FACILITY ID | FACILITY STREET | DATABASE |
|---------------|--------|-------------|---------------------------|---|
| 520A-0091-204 | 238 | 0013297 | 45 WEST 81ST STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0091-227 | 103 | 0102621 | 135 WEST 74TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-250 | 257 | 0104721 | 32 WEST 82ND ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0091-328 | 222 | 0200291 | 210 WEST 89TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-329 | 246 | 0200505 | 25 W 81ST ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0091-390 | 186 | 0209914 | 425 WEST END AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-401 | 261 | 0211129 | 22 WEST 77TH ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0091-402 | 16 | 0211222 | 10 WEST 74TH ST | Closed Status Tank Failures |
| 520A-0091-473 | 290 | 0310337 | 203 W. 85TH ST. | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0091-497 | 79 | 0313030 | 31 WEST 76TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-502 | 83 | 0313954 | 120 WEST 76TH ST. | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-517 | 75 | 0401022 | 35 WEST 81ST ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-518 | 78 | 0401041 | 32 WEST 82ND ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-553 | 213 | 0407891 | 600 COLUMBUS AVE. | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-578 | 80 | 0411433 | 124 WEST 79TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-580 | 14 | 0411524 | 15 WEST 84TH STREET | Closed Status Tank Failures |
| 520A-0091-756 | 24 | 9003522 | 27 WEST 72ND STREET | Closed Status Tank Failures |
| 520A-0091-757 | 251 | 9003894 | 108 WEST 80TH STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0091-846 | 68 | 9106109 | 52 RIVERSIDE DR | Closed Status Tank Test Failures |
| 520A-0091-913 | 300 | 9209074 | 144 WEST 90TH STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0091-955 | 8 | 9213467 | 123 W. 79TH STREET | Closed Status Tank Failures |
| 520A-0091-987 | 143 | 9306013 | 2222 BROADWAY | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-011 | 197 | 9310521 | 319 WEST 77TH STREET. | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-153 | 268 | 9415054 | 35 W. 82ND STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0092-269 | 164 | 9512657 | 252 WEST 79TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-296 | 39 | 9515030 | 240 WEST END AVE | Closed Status Tank Failures |
| 520A-0092-320 | 258 | 9600690 | 100 WEST 77TH ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0092-328 | 287 | 9603097 | 10 WEST 86TH ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0092-361 | 239 | 9608499 | 430 COLUMBUS AVE | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0092-392 | 73 | 9612844 | 51 WEST 81ST ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-394 | 226 | 9612897 | 562 WEST END AV | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-408 | 266 | 9700916 | 11 WEST 81ST ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0092-536 | 205 | 9808907 | 309 W.74TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-557 | 135 | 9811576 | 27 WEST 72ND ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-626 | 42 | 9903694 | 102 WEST 79TH ST | Closed Status Tank Test Failures |
| 520A-0092-639 | 236 | 9906118 | 66 WEST 77TH ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0092-653 | 167 | 9908618 | 400 WEST END AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-908 | 120 | 9513873 | COLUMBUS AVE/EAST 73RD ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-965 | 106 | 9808719 | W 75TH ST & CEN PRK W | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0093-091 | 91 | 9914163 | W 77TH ST/CENT PARK W | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0093-113 | 256 | 0401035 | 32 WEST 82ND ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0093-114 | 195 | 0401745 | WEST 72ND STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0093-195 | 272 | 9607793 | 473 COLUMBUS AVE/81 & 82 | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0095-234 | 142 | 0006070 | CENTRAL PK WEST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-259 | 41 | 0105791 | 1995 BROADWAY | Closed Status Tank Failures |
| 520A-0095-260 | 233 | 0407958 | 1995 BROADWAY | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-261 | 299 | 0107530 | 2000 BROADWAY | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0095-273 | 26 | 0406187 | 40 W 72ND STREET | Closed Status Tank Failures |
| 520A-0095-280 | 194 | 9912234 | IFO 154 W70TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-283 | 166 | 0311725 | 159 WEST 71ST ST/BTWN COL | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-284 | 155 | 9714534 | 152 WEST 72ND ST - APT 5B | Closed Status Spills (Unknown Causes or Other Causes) |

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|---------------|--------|-------------|-------------------------------|---|
| 520A-0095-731 | 161 | 0404949 | 17 WEST 71 ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-733 | 201 | 0308740 | 11 WEST 69TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-745 | 291 | 9106326 | CENTRAL PARK LAKE | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0095-746 | 110 | 0009011 | 76TH/AMSTERDAM | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-747 | 111 | 0009010 | 76TH ST/AMSTERDAM | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-748 | 35 | 0510860 | 264 WEST 71 STREET | Closed Status Tank Failures |
| 520A-0095-752 | 11 | 9700866 | 100 WEST 75TH STREET | Closed Status Tank Failures |
| 520A-0095-753 | 10 | 9700871 | 102 WEST 75TH ST | Closed Status Tank Failures |
| 520A-0095-754 | 27 | 9802677 | 2109 BROADWAY | Closed Status Tank Failures |
| 520A-0095-756 | 28 | 9209388 | 2109 BROADWAY | Closed Status Tank Failures |
| 520A-0095-757 | 7 | 0106772 | 53 W 76TH ST | Closed Status Tank Failures |
| 520A-0095-758 | 153 | 0210091 | 250 W 77TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-762 | 82 | 0511030 | 118 W. 76TH ST. | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-763 | 140 | 9714319 | 219 W. 76TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-766 | 169 | 0511868 | 342 WEST END AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-768 | 283 | 9511197 | 54 WEST 74TH STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0095-769 | 282 | 9511281 | 54 WEST 74TH ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0096-489 | 5 | 9502313 | 86TH STREET & TRANSVERSE ROAD | Active Haz Spills (Unknown Causes or Other Causes) |
| 520A-0097-030 | 88 | 9704989 | 81ST ST & CENTRAL PK WEST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-034 | 274 | 9906089 | 211 CENTRAL PARK WEST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0097-224 | 232 | 0308676 | 20 W. 68TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-570 | 105 | 0604606 | 36 WEST 74TH ST. | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-807 | 128 | 0209565 | 126 W 73RD ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-812 | 288 | 9307715 | 160 WEST 73RD STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0097-822 | 183 | 9712912 | 2071 BROADWAY | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-823 | 141 | 9906352 | 121 W 72ND ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-825 | 177 | 9808972 | W79TH ST / WEST END AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-826 | 60 | 0509393 | 250 WEST 77TH ST | Closed Status Tank Test Failures |
| 520A-0097-828 | 150 | 9108106 | 235 W.75TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-829 | 151 | 0308109 | 235 WEST 75TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-830 | 223 | 0101768 | 20 RIVERSIDE DR | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-831 | 252 | 9511954 | 101 WEST 81ST ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0097-832 | 77 | 9614218 | 101 WEST 81ST ST APT 103 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-833 | 255 | 0514785 | 446 COLUMBUS AV | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0097-834 | 96 | 0203985 | 171 W. 81TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-844 | 234 | 0505106 | COLUMBUS AV AT W 79 ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0098-009 | 182 | 9710729 | 114 W 88TH ST - APT 1 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-010 | 218 | 0000802 | FRONT 545 WEST END AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-432 | 292 | 0514145 | WEST END AVE / 84 STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0098-433 | 192 | 0411668 | W 84 ST / WEST END AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-708 | 55 | 0310460 | 219 WEST 77TH STREET | Closed Status Tank Test Failures |
| 520A-0098-711 | 134 | 0008420 | 2166 BROADWAY | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-713 | 121 | 0102998 | 332 AMSTERDAM AVENUE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-714 | 87 | 0107348 | 160 WEST 78TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-715 | 56 | 0202743 | 216 W 76TH ST | Closed Status Tank Test Failures |
| 520A-0098-717 | 163 | 8702852 | 245 WEST 75TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-721 | 25 | 9009255 | 2130 BROADWAY | Closed Status Tank Failures |
| 520A-0098-722 | 23 | 9009666 | 2166 BROADWAY | Closed Status Tank Failures |
| 520A-0098-724 | 62 | 9108242 | 241 W.75TH ST | Closed Status Tank Test Failures |
| 520A-0098-725 | 15 | 9206055 | 201 WEST 77TH STREET | Closed Status Tank Failures |
| 520A-0098-732 | 129 | 9512434 | 216 WEST 76TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |

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| TT-ID | MAP-ID | FACILITY ID | FACILITY STREET | DATABASE |
|---------------|--------|-------------|-------------------------------|---|
| 520A-0098-735 | 133 | 9708318 | 2166 BROADWAY | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-737 | 20 | 9904995 | 332 AMSTERDAM AVENUE | Closed Status Tank Failures |
| 520A-0098-740 | 136 | 9910860 | 215 W.76TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-741 | 159 | 0514747 | 241 WEST 75TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-743 | 59 | 0603441 | 250 WEST 77TH STREET | Closed Status Tank Test Failures |
| 520A-0098-744 | 52 | 0210864 | 145 WEST 84TH STREET | Closed Status Tank Test Failures |
| 520A-0098-746 | 86 | 0011330 | 144 WEST 82ND ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-747 | 12 | 0409941 | 150 WEST 82ND STREET | Closed Status Tank Failures |
| 520A-0098-751 | 116 | 9712452 | 52 W. 85TH ST APT 1R | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-752 | 97 | 0611800 | 150 WEST 83RD STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-756 | 46 | 0408295 | 150 WEST 82ND ST | Closed Status Tank Test Failures |
| 520A-0098-761 | 45 | 9512346 | 120 WEST 82ND STREET | Closed Status Tank Test Failures |
| 520A-0098-763 | 44 | 9614401 | 120 WEST 82ND STREET | Closed Status Tank Test Failures |
| 520A-0098-764 | 47 | 9906666 | 146 WEST 83RD ST | Closed Status Tank Test Failures |
| 520A-0098-766 | 285 | 9606147 | IFO 453 AMSTERDAM AVE | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0098-767 | 147 | 9600735 | 86TH STREET & TRANSVERSE ROAD | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-769 | 174 | 0507825 | 23 WEST 87TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-775 | 297 | 0310328 | 19 WEST 89TH STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0098-776 | 32 | 0501353 | 45 WEST 88TH STREET | Closed Status Tank Failures |
| 520A-0098-785 | 38 | 9911904 | 2 WEST 90TH ST | Closed Status Tank Failures |
| 520A-0098-786 | 220 | 9912480 | 10 WEST 90TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-787 | 30 | 9913986 | 37 WEST 87TH ST | Closed Status Tank Failures |
| 520A-0101-135 | 64 | 0611481 | 176 WEST 87TH STREET | Closed Status Tank Test Failures |
| 520A-0101-138 | 37 | 9810768 | 210 WEST 89TH ST | Closed Status Tank Failures |
| 520A-0101-157 | 231 | 0202046 | 574 WEST END AV | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-158 | 198 | 9004060 | 100 WEST 89TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-333 | 31 | 9708740 | 441 WEST END AV \ (80/81) | Closed Status Tank Failures |
| 520A-0101-335 | 204 | 9815515 | 98 RIVERSIDE DRIVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-339 | 293 | 0604433 | 505 WEST END AVE | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0101-343 | 70 | 0701980 | 310- 320 WEST 86TH STREET | Closed Status Tank Test Failures |
| 520A-0101-345 | 216 | 0109869 | 336 WEST 84TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-347 | 162 | 0207710 | 86TH ST & AMSTERDAM AV | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-349 | 124 | 0312284 | 219 WEST 77TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-350 | 176 | 9814099 | 2350 BROADWAY | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-351 | 118 | 9706531 | 200 W. 82ND ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-352 | 108 | 0112175 | 475 AMSTERDAM AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-353 | 188 | 0306271 | 389 WEST END AVENUE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-369 | 130 | 9512234 | 216 WEST 76TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-370 | 152 | 0301510 | 2159 BROADWAY | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-371 | 270 | 0010667 | 469 COLUMBUS AVE | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0101-956 | 170 | 9913687 | 59TH ST/110TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-960 | 158 | 0002592 | 73RD ST/BROADWAY | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-961 | 168 | 9712910 | WEST 72ND ST & BROADWAY | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-191 | 179 | 0303245 | WEST END AV/W 77TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-192 | 180 | 0103043 | WESTEND AVE/W 77TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-194 | 215 | 0011833 | TO 79TH | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-211 | 295 | 9812964 | WEST END AVE / 86TH ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0102-212 | 207 | 0007959 | WEST END AV/BET 85 & 86 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-286 | 189 | 9902131 | WEST END AVE / WEST 83RD | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-512 | 200 | 9811082 | WEST END AV & W 85TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-513 | 199 | 9912170 | WEST END AV / W 85TH ST | Closed Status Spills (Unknown Causes or Other Causes) |

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|---------------|--------|-------------|----------------------------------|---|
| 520A-0211-096 | 173 | 0707272 | 119 WEST 87TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0211-104 | 212 | 0707548 | 11 RIVERSIDE DRIVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0214-772 | 131 | 0711724 | 216 WEST 76TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0214-810 | 115 | 0713512 | 67 WEST 73RD ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0220-200 | 72 | 0890009 | NE W 77 ST COLUMBUS AV | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0220-591 | 156 | 0807618 | 148 WEST 72ND ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0220-617 | 3 | 0808308 | 595 COLUMBUS AVE | Active Tank Test Failures |
| 520A-0222-354 | 221 | 0806603 | 210 WEST 89 TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0225-185 | 203 | 0809964 | WEST 87TH ST & BROADWAY | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0226-355 | 214 | 0811781 | 2 WEST 69TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0226-357 | 149 | 0811809 | 235 WEST 76TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0226-422 | 43 | 0900502 | 74 WEST 82ND ST | Closed Status Tank Test Failures |
| 520A-0229-407 | 49 | 0902145 | 150 WEST 84TH ST | Closed Status Tank Test Failures |
| 520A-0229-475 | 148 | 0903063 | 241 WEST 76 ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0232-118 | 193 | 0906140 | 30 WEST 70TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0233-973 | 262 | 0909623 | 15 WEST 81ST ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0248-446 | 112 | 0814637 | 141-150 CENTRAL PARK WEST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0248-463 | 113 | 0914003 | 424-246 AMSTERDAM AVENUE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0248-556 | 127 | 0913358 | 157 WEST 73RD ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0248-722 | 209 | 0914466 | W 86 ST AND WEST END AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0248-768 | 98 | 0914061 | 136 W 75 STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0248-777 | 202 | 0914135 | 321 W 82 ST AND RIVERSIDE DR | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0249-518 | 107 | 0814608 | WEST 75 ST AND CENTRAL PARK WEST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0249-519 | 211 | 0914501 | W END AVE AND 72ND ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0253-025 | 57 | 1003932 | 101 WEST 72ND ST | Closed Status Tank Test Failures |
| 520A-0253-034 | 271 | 1004259 | 135 WEST 79TH ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0255-645 | 265 | 1007020 | 127 WEST 79 ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0263-404 | 302 | 1102131 | BETWEEN AMSTERDAM AVE AND | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0271-497 | 50 | 1114440 | 200 W. 78TH ST | Closed Status Tank Test Failures |
| 520A-0278-032 | 196 | 1206031 | 2030 BROADWAY | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0278-043 | 66 | 1206692 | 473 WEST END AVE | Closed Status Tank Test Failures |
| 520A-0280-960 | 269 | 1214810 | 131 WEST 78TH ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0286-950 | 48 | 1216531 | 172 WEST 79TH | Closed Status Tank Test Failures |
| 520A-0288-326 | 273 | 0105883 | CENTRAL PARK | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0289-137 | 61 | 1305857 | 233 WEST 77TH STREET | Closed Status Tank Test Failures |
| 520A-0293-318 | 101 | 1306921 | 175 WEST 76TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0293-325 | 191 | 1307187 | 365 WEST END AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0293-430 | 249 | 1308427 | 74 WEST 82 ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0297-240 | 244 | 1310806 | 35 WEST 81ST ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0297-283 | 58 | 1312078 | 12 WEST 72ND ST | Closed Status Tank Test Failures |
| 520A-0297-775 | 109 | 1400018 | 82ND AND AMSTERDAM | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0298-360 | 281 | 1402418 | 175 W 76TH ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0300-649 | 65 | 1403318 | 465 WEST END AVENUE | Closed Status Tank Test Failures |
| 520A-0300-653 | 69 | 1403485 | 277 WEST END AVE | Closed Status Tank Test Failures |
| 520A-0300-680 | 227 | 1405674 | 562 WEST END AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0300-704 | 284 | 1407071 | 54 WEST 74TH STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0302-180 | 228 | 1405504 | 562 WESTEND AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0303-446 | 2 | 1409035 | 215 WEST 75TH ST | Active Tank Test Failures |
| 520A-0305-036 | 67 | 1407368 | 307 WEST 79 STRET | Closed Status Tank Test Failures |
| 520A-1000-803 | 63 | 1215632 | 166 WEST 72ND STREET | Closed Status Tank Test Failures |
| 640A-0030-235 | 342 | 2-043877 | 35 WEST 82ND STREET | Petroleum Bulk Storage Sites |

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|---------------|--------|--------------|------------------------|--|
| 640A-0030-256 | 360 | 2-055549 | 147 WEST 79TH STREET | Petroleum Bulk Storage Sites |
| 640A-0031-221 | 351 | 2-306142 | 140 W 79TH ST | Petroleum Bulk Storage Sites |
| 640A-0031-601 | 305 | 2-453811 | 100 WEST 80TH STREET | Petroleum Bulk Storage Sites |
| 740A-0031-849 | 390 | NYD061202768 | 79TH STREET & COLUMBIA | Hazardous Waste Generators, Transporters |
| 740A-0130-693 | 450 | NYP004756003 | 29 W 82ND ST | Hazardous Waste Generators, Transporters |

Sites With No Data Or Location Changes Identified In This Updated Report

| TT-ID | MAP-ID | FACILITY ID | FACILITY STREET | DATABASE |
|---------------|--------|-------------|---------------------------|---|
| 520A-0089-877 | 277 | 9711001 | 34-36 WEST 83RD ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0090-007 | 89 | 9105945 | 79TH ST TRANSVERSE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0090-930 | 289 | 9509544 | WEST 74TH ST/ BROADWAY | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0091-138 | 157 | 0006084 | 64 W 87TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-585 | 40 | 0412040 | 240 WEST END AVE | Closed Status Tank Failures |
| 520A-0091-714 | 85 | 8903584 | 7 WEST 82ND STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-721 | 76 | 8905449 | 118 WEST 79TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-740 | 280 | 8911278 | 27 W 74TH STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0091-746 | 247 | 9000007 | 64 WEST 82ND STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0091-748 | 17 | 9000527 | 24 WEST 85TH STREET | Closed Status Tank Failures |
| 520A-0091-777 | 34 | 9007713 | 205 WEST 88TH STREET | Closed Status Tank Failures |
| 520A-0091-998 | 250 | 9308078 | 57 W. 76TH STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0092-002 | 264 | 9308723 | 129 WEST 77TH STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0092-144 | 248 | 9414562 | 55 WEST 76TH STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0092-275 | 187 | 9513285 | 355 WEST END AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-279 | 99 | 9513823 | 140 W 75TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-355 | 240 | 9607683 | 430 COLUMBUS AVE | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0092-418 | 263 | 9702507 | 60 WEST 76TH ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0092-504 | 242 | 9802892 | 101 W 78TH ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0092-505 | 241 | 9802899 | 101 WEST 78TH ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0092-571 | 36 | 9812557 | 210 W 89TH ST | Closed Status Tank Failures |
| 520A-0092-675 | 154 | 9910368 | 212 W.85TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-899 | 259 | 9509190 | COLUMBUS AVE & 76TH ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0093-132 | 278 | 8903548 | 7,9,11 WEST 82ND STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0095-235 | 181 | 0011976 | W 71S ST / CENTRAL PARK W | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-279 | 184 | 9002095 | 101 CENTRAL PARK WEST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-281 | 144 | 9112772 | 1 W 72ND ST/DAKOTA | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-743 | 230 | 8906472 | 74 W 68TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-751 | 22 | 9106670 | 135 CENTRAL PK W | Closed Status Tank Failures |
| 520A-0095-764 | 119 | 9808769 | 348-354 AMSTERDAM AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-031 | 137 | 9000590 | CENTRAL PARK WEST&85TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-032 | 84 | 0011975 | 211 CENTRAL PARK WEST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-033 | 275 | 9010890 | 211 CENTRAL PARK WEST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0097-395 | 254 | 0602795 | 101 WEST 81ST STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0097-842 | 286 | 9011809 | 200 WEST 79TH STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0098-129 | 132 | 0608530 | AMSTERDAM AVE AT WEST 74T | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-719 | 93 | 9002134 | 163 WEST 76TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-723 | 29 | 9108119 | 245 W.75TH ST | Closed Status Tank Failures |
| 520A-0098-731 | 53 | 9413181 | 332 AMSTERDAM AVENUE | Closed Status Tank Test Failures |
| 520A-0098-736 | 21 | 9904938 | 332 AMSTERDAM AVENUE | Closed Status Tank Failures |
| 520A-0098-738 | 19 | 9904998 | 332 AMSTERDAM AVENUE | Closed Status Tank Failures |

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|---------------|--------|-------------|-------------------------------|---|
| 520A-0098-739 | 18 | 9905193 | 332 AMSTERDAM AVENUE | Closed Status Tank Failures |
| 520A-0098-749 | 125 | 0607065 | 101 WEST 85 STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-750 | 126 | 0606644 | 101 WEST 85TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-757 | 245 | 9007523 | 106 WEST 81ST STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0098-758 | 13 | 9011428 | 139 WEST 82ND STREET | Closed Status Tank Failures |
| 520A-0098-768 | 139 | 9214506 | 28-30 W. 86TH ST. | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-783 | 296 | 9416405 | 49 WEST 89TH STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0101-348 | 104 | 9910327 | AMSTERDAM AV & 80TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-368 | 81 | 9512927 | 120 WEST 82ND STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-888 | 185 | 0503314 | W 71ST / BROADWAY | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-954 | 172 | 9106422 | CENTRAL PARK LAKE, WEST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-955 | 171 | 9912733 | WEST 79TH STREET+CENTRAL | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-143 | 100 | 8907311 | W 83RD ST& CENT PARK WEST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-208 | 229 | 9612167 | BET W.89TH & W.90TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-280 | 208 | 9814552 | RIVERSIDE DR / W 79TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0211-099 | 165 | 0707307 | 213 WEST 85TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0211-130 | 114 | 0708720 | 424 AMSTERDAM AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0211-139 | 92 | 0708989 | 148 W 76TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0214-961 | 102 | 0801224 | 52 WEST 74TH STREET | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0220-540 | 243 | 0805295 | 44 WEST 77TH ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0220-645 | 94 | 0805106 | 55 W 74TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0226-327 | 276 | 0812909 | 211 CENTRAL PARK WEST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0229-392 | 71 | 0904587 | W. 79TH ST. & COLUMBUS AVE. | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0232-097 | 210 | 0906576 | WEST 86TH ST AND WEST END AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0233-932 | 117 | 0908602 | 200 WEST 79TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0248-490 | 253 | 1000110 | 101 WEST 81ST STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0263-299 | 301 | 1102137 | WEST 68TH ST AND BROADWAY | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0265-914 | 51 | 1104682 | 202 WEST 78TH ST | Closed Status Tank Test Failures |
| 520A-0265-916 | 138 | 1104766 | 40 WEST 86TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0269-294 | 237 | 1111702 | 45 WEST 81 ST | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0275-647 | 267 | 1203278 | 11 W.81ST STREET | Closed Status Spills (Miscellaneous Spill Causes) |
| 520A-0279-316 | 298 | 1205821 | W 78TH ST & RIVERSIDE DR | Closed Status Spills (Miscellaneous Spill Causes) |
| 640A-0029-608 | 359 | 2-113654 | 211 CENTRAL PARK WEST | Petroleum Bulk Storage Sites |
| 640A-0029-654 | 313 | 2-272779 | 101 WEST 79TH STREET | Petroleum Bulk Storage Sites |
| 640A-0029-747 | 317 | 2-610232 | 105 WEST 77TH STREET | Petroleum Bulk Storage Sites |
| 640A-0029-851 | 306 | 2-605641 | 50-52 WEST 77TH STREET | Petroleum Bulk Storage Sites |
| 640A-0029-906 | 322 | 2-316377 | 59 WEST 76TH STREET | Petroleum Bulk Storage Sites |
| 640A-0030-020 | 352 | 2-608998 | 120 WEST 76TH STREET | Petroleum Bulk Storage Sites |
| 640A-0030-288 | 318 | 2-063673 | 35 WEST 81ST ST | Petroleum Bulk Storage Sites |
| 640A-0030-294 | 346 | 2-064696 | 6 WEST 77TH ST | Petroleum Bulk Storage Sites |
| 640A-0030-295 | 337 | 2-064726 | 20 WEST 77TH STREET | Petroleum Bulk Storage Sites |
| 640A-0030-404 | 312 | 2-098094 | 370 COLUMBUS AVE | Petroleum Bulk Storage Sites |
| 640A-0030-438 | 321 | 2-108332 | 117 WEST 79TH ST | Petroleum Bulk Storage Sites |
| 640A-0030-529 | 340 | 2-147311 | 11 WEST 81ST STREET | Petroleum Bulk Storage Sites |
| 640A-0030-815 | 334 | 2-233471 | 15 W 81ST ST | Petroleum Bulk Storage Sites |
| 640A-0030-871 | 315 | 2-243531 | 51 WEST 81ST ST | Petroleum Bulk Storage Sites |
| 640A-0030-878 | 336 | 2-244600 | 127 WEST 79TH STREET | Petroleum Bulk Storage Sites |
| 640A-0031-026 | 310 | 2-271284 | 101 W. 78TH ST | Petroleum Bulk Storage Sites |
| 640A-0031-041 | 331 | 2-272930 | 124 WEST 79TH STREET | Petroleum Bulk Storage Sites |
| 640A-0031-100 | 366 | 2-281808 | 150 WEST 79TH STREET | Petroleum Bulk Storage Sites |
| 640A-0031-142 | 339 | 2-286192 | 100 WEST 76TH STREET | Petroleum Bulk Storage Sites |

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| TT-ID | MAP-ID | FACILITY ID | FACILITY STREET | DATABASE |
|---------------|--------|--------------|--------------------------|--|
| 640A-0031-211 | 345 | 2-297852 | 57 WEST 75TH ST | Petroleum Bulk Storage Sites |
| 640A-0031-233 | 341 | 2-311502 | 41 WEST 82ND STREET | Petroleum Bulk Storage Sites |
| 640A-0031-251 | 335 | 2-315842 | 60 WEST 76TH STREET | Petroleum Bulk Storage Sites |
| 640A-0031-344 | 344 | 2-332240 | 135 WEST 79TH STREET | Petroleum Bulk Storage Sites |
| 640A-0031-377 | 319 | 2-338796 | 102 WEST 80TH ST | Petroleum Bulk Storage Sites |
| 640A-0031-430 | 329 | 2-353876 | 100 WEST 77TH STREET | Petroleum Bulk Storage Sites |
| 640A-0031-451 | 324 | 2-360066 | 25 WEST 81ST STREET | Petroleum Bulk Storage Sites |
| 640A-0031-588 | 332 | 2-420999 | 22 WEST 77TH STREET | Petroleum Bulk Storage Sites |
| 640A-0031-759 | 354 | 2-600842 | 145 W. 79TH STREET | Petroleum Bulk Storage Sites |
| 640A-0032-083 | 308 | 2-606646 | 101 WEST 80TH STREET | Petroleum Bulk Storage Sites |
| 640A-0032-139 | 349 | 2-607024 | 471 COLUMBUS AVENUE | Petroleum Bulk Storage Sites |
| 640A-0032-219 | 326 | 2-112283 | 40 WEST 77 ST | Petroleum Bulk Storage Sites |
| 640A-0032-236 | 343 | 2-129992 | 125 WEST 76TH STREET | Petroleum Bulk Storage Sites |
| 640A-0032-245 | 369 | 2-147370 | 151 WEST 78TH STREET | Petroleum Bulk Storage Sites |
| 640A-0032-247 | 307 | 2-148075 | 66 WEST 77TH STREET | Petroleum Bulk Storage Sites |
| 640A-0032-304 | 311 | 2-210870 | 102 WEST 79 STREET | Petroleum Bulk Storage Sites |
| 640A-0032-314 | 356 | 2-214507 | 146 WEST 79TH STREET | Petroleum Bulk Storage Sites |
| 640A-0032-334 | 323 | 2-236756 | 118 WEST 79TH STREET | Petroleum Bulk Storage Sites |
| 640A-0032-350 | 316 | 2-245224 | 44 WEST 77TH STREET | Petroleum Bulk Storage Sites |
| 640A-0032-384 | 373 | 2-265926 | 60 W 75 STREET | Petroleum Bulk Storage Sites |
| 640A-0032-386 | 330 | 2-266590 | 32 WEST 82ND STREET | Petroleum Bulk Storage Sites |
| 640A-0032-465 | 355 | 2-311871 | 46 W 83 STREET | Petroleum Bulk Storage Sites |
| 640A-0032-693 | 357 | 2-606629 | 101 WEST 75 ST. | Petroleum Bulk Storage Sites |
| 640A-0032-704 | 314 | 2-607150 | 45 WEST 81 STREET | Petroleum Bulk Storage Sites |
| 640A-0038-724 | 364 | 2-607938 | 14-16 WEST 76TH STREET | Petroleum Bulk Storage Sites |
| 640A-0039-392 | 370 | 2-353477 | 160 WEST 78TH STREET | Petroleum Bulk Storage Sites |
| 640A-0039-407 | 368 | 2-602707 | 127 WEST 82ND STREET | Petroleum Bulk Storage Sites |
| 640A-0039-408 | 367 | 2-309133 | 127 W 82 ST | Petroleum Bulk Storage Sites |
| 640A-0039-409 | 347 | 2-603532 | 107-111 WEST 82ND STREET | Petroleum Bulk Storage Sites |
| 640A-0039-410 | 327 | 2-211583 | 440 COLUMBUS AVENUE | Petroleum Bulk Storage Sites |
| 640A-0039-411 | 328 | 2-249092 | 101 WEST 81ST STREET | Petroleum Bulk Storage Sites |
| 640A-0039-412 | 362 | 2-358495 | 155 WEST 81 STREET | Petroleum Bulk Storage Sites |
| 640A-0039-415 | 363 | 2-200905 | 158 WEST 81ST STREET | Petroleum Bulk Storage Sites |
| 640A-0039-437 | 361 | 2-357898 | 120 WEST 83RD STREET | Petroleum Bulk Storage Sites |
| 640A-0039-447 | 371 | 2-198404 | 146 WEST 82ND STREET | Petroleum Bulk Storage Sites |
| 640A-0039-448 | 338 | 2-217484 | 120 WEST 82ND STREET | Petroleum Bulk Storage Sites |
| 640A-0086-712 | 303 | 2-611190 | 200 CENTRAL PARK WEST | Petroleum Bulk Storage Sites |
| 640A-0089-573 | 325 | 2-611976 | 80 WEST 82ND ST | Petroleum Bulk Storage Sites |
| 660A-0005-119 | 304 | NY01442 | 179 CENTRAL PARK W | Petroleum Bulk Storage Sites |
| 660A-0005-553 | 350 | NY07044 | 471 COLUMBUS AVE | Petroleum Bulk Storage Sites |
| 660A-0005-730 | 348 | NY00056 | 109 W 82 ST | Petroleum Bulk Storage Sites |
| 660A-0005-795 | 309 | NY00039 | 101 W 80 ST | Petroleum Bulk Storage Sites |
| 660A-0005-959 | 372 | NY00755 | 73 W 83 ST | Petroleum Bulk Storage Sites |
| 660A-0006-052 | 333 | NY01319 | 73 W 82 ST | Petroleum Bulk Storage Sites |
| 660A-0006-156 | 365 | NY02492 | 14 W 76 ST | Petroleum Bulk Storage Sites |
| 660A-0006-496 | 358 | NY05520 | 101 W 75 ST | Petroleum Bulk Storage Sites |
| 660A-0007-006 | 353 | NY10324 | 120 W 76 ST | Petroleum Bulk Storage Sites |
| 660A-0007-854 | 320 | NY10312 | 103 W 80 ST | Petroleum Bulk Storage Sites |
| 740A-0024-497 | 475 | NYP000927871 | 211 CENTRAL PARK WEST | Hazardous Waste Generators, Transporters |
| 740A-0024-511 | 460 | NYR000066894 | 6-16 W 77TH ST | Hazardous Waste Generators, Transporters |
| 740A-0024-600 | 477 | NYP004057626 | V8223-211 CENTRAL PARK W | Hazardous Waste Generators, Transporters |

Continued from previous page

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| 740A-0024-674 | 392 | NYP004084364 | V0062 - 41-49 W 81ST | Hazardous Waste Generators, Transporters |
| 740A-0024-747 | 394 | NYD006545883 | 445 COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0024-803 | 395 | NYD981083835 | 445 COLUMBUS AVENUE | Hazardous Waste Generators, Transporters |
| 740A-0026-228 | 407 | NYD987038908 | 25 WEST 81 STREET | Hazardous Waste Generators, Transporters |
| 740A-0026-445 | 391 | NYP000782847 | CENTRAL PARK W & 79TH ST | Hazardous Waste Generators, Transporters |
| 740A-0026-576 | 476 | NYP004041976 | V8223-CENTRAL PARK WEST | Hazardous Waste Generators, Transporters |
| 740A-0029-220 | 426 | NYP004124798 | 76 ST & COLUMBUS AVE V6001 | Hazardous Waste Generators, Transporters |
| 740A-0031-157 | 491 | NYR000009456 | 160 WEST 78TH STREET | Hazardous Waste Generators, Transporters |
| 740A-0065-096 | 468 | NYP004161949 | 78TH & 8TH AVE | Hazardous Waste Generators, Transporters |
| 740A-0066-409 | 385 | NYP004177564 | W 77TH ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0066-520 | 414 | NYP004165833 | 115 W 77TH ST | Hazardous Waste Generators, Transporters |
| 740A-0066-551 | 469 | NYP004166534 | 41 W 75TH ST | Hazardous Waste Generators, Transporters |
| 740A-0066-937 | 467 | NYP004188868 | 43 WEST 75TH ST | Hazardous Waste Generators, Transporters |
| 740A-0066-954 | 486 | NYP004191227 | W 75TH STREET AND COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0067-120 | 455 | NYP004187662 | W 78 ST BETW COLUMBUS/AMSTERDAM | Hazardous Waste Generators, Transporters |
| 740A-0067-134 | 374 | NYP004188918 | WEST 80 ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0067-359 | 452 | NYP004177572 | 135 W. 78 ST | Hazardous Waste Generators, Transporters |
| 740A-0067-362 | 405 | NYP004177630 | 104 WEST 80 STREET | Hazardous Waste Generators, Transporters |
| 740A-0067-363 | 434 | NYP004177648 | 122 WEST 81 STREET | Hazardous Waste Generators, Transporters |
| 740A-0067-364 | 490 | NYP004177655 | 146 WEST 80 STREET | Hazardous Waste Generators, Transporters |
| 740A-0067-372 | 436 | NYP004177796 | 101 W 82 STREET AND COLUMBUS A | Hazardous Waste Generators, Transporters |
| 740A-0067-375 | 456 | NYP004177911 | 23 W 82 ST | Hazardous Waste Generators, Transporters |
| 740A-0067-461 | 500 | NYP004187613 | FRONT OF 104 WEST 75 STREET | Hazardous Waste Generators, Transporters |
| 740A-0067-486 | 449 | NYP004190013 | 29 WEST 82 STREET | Hazardous Waste Generators, Transporters |
| 740A-0067-546 | 406 | NYP044177630 | 104 WEST 80 STREET | Hazardous Waste Generators, Transporters |
| 740A-0068-239 | 466 | NYP004177580 | OPP 141 W. 78ST | Hazardous Waste Generators, Transporters |
| 740A-0068-288 | 503 | NYP004189908 | SB 13554 F/O 106 W 75TH ST | Hazardous Waste Generators, Transporters |
| 740A-0068-644 | 386 | NYP004191276 | W 77 ST AND COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0071-989 | 484 | NYP004186664 | W 75TH ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0072-064 | 412 | NYP004199287 | 345 COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0072-157 | 399 | NYR000176487 | 44 W 77TH ST | Hazardous Waste Generators, Transporters |
| 740A-0074-747 | 485 | NYP004188868 | W 75TH ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0075-858 | 437 | NYP004169363 | 25 W 76TH ST | Hazardous Waste Generators, Transporters |
| 740A-0081-111 | 448 | NYP004250080 | F/O 26-28 W 76TH ST 7 COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0081-220 | 459 | NYP004250080 | 26-28 W 76TH ST E OF COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0082-210 | 425 | NYP004255352 | F/O 43 W 76 E/O COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0082-717 | 487 | NYP004253407 | S/W/C W 75 ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0082-726 | 387 | NYP004252771 | N/W/C W 77TH ST AND CENTRAL PA | Hazardous Waste Generators, Transporters |
| 740A-0082-728 | 388 | NYP004253761 | N/E COLUMBUS & 77 ST | Hazardous Waste Generators, Transporters |
| 740A-0084-267 | 489 | NYP004274387 | S/W/C W 75 ST & COLUMBUS AVVE | Hazardous Waste Generators, Transporters |
| 740A-0084-281 | 488 | NYP004272118 | SWC W 75 & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0086-663 | 443 | NYP004295259 | F/O 339 COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0093-754 | 410 | NYP004321824 | FO 343 COLUMBUS AVE NO 76 ST | Hazardous Waste Generators, Transporters |
| 740A-0093-758 | 416 | NYP004321931 | FO 114 W 78 ST EO AMSTERDAM AVE | Hazardous Waste Generators, Transporters |
| 740A-0093-763 | 400 | NYP004322335 | FO 440 COLUMBUS AVE NO 81 ST | Hazardous Waste Generators, Transporters |
| 740A-0093-764 | 444 | NYP004322343 | FO 338 COLUMBUS AVE NO 75 ST | Hazardous Waste Generators, Transporters |
| 740A-0093-770 | 409 | NYP004322467 | FO 117 W 79 ST EO AMSTERDAM AVE | Hazardous Waste Generators, Transporters |
| 740A-0093-774 | 433 | NYP004322624 | FO 120 W 79 ST EO AMSTERDAM AVE | Hazardous Waste Generators, Transporters |
| 740A-0093-775 | 408 | NYP004322632 | FO 118 W 79 ST EO AMSTERDAM AVE | Hazardous Waste Generators, Transporters |
| 740A-0093-779 | 398 | NYP004322699 | FO 441 COLUMBUS AVE NO 81 ST | Hazardous Waste Generators, Transporters |
| 740A-0093-783 | 413 | NYP004322756 | FO 112 W 81 ST EO AMSTERDAM AVE | Hazardous Waste Generators, Transporters |

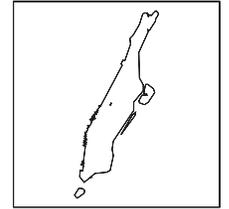
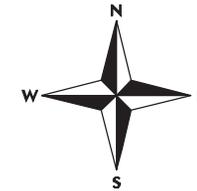
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| TT-ID | MAP-ID | FACILITY ID | FACILITY STREET | DATABASE |
|---------------|--------|--------------|----------------------------------|--|
| 740A-0093-784 | 393 | NYP004322772 | FO 41 W 81 ST EO COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0093-785 | 403 | NYP004322806 | FO 108 W 81 ST EO AMSTERDAM AVE | Hazardous Waste Generators, Transporters |
| 740A-0093-786 | 465 | NYP004322962 | FO 145 W 79 ST & AMSTERDAM AVE | Hazardous Waste Generators, Transporters |
| 740A-0093-787 | 492 | NYP004322970 | FO 150 W 79 ST & AMSTERDAM AVE | Hazardous Waste Generators, Transporters |
| 740A-0093-789 | 493 | NYP004322996 | FO 150 W 79 ST & AMSTERDAM AVE | Hazardous Waste Generators, Transporters |
| 740A-0093-790 | 502 | NYP004323044 | FO 109 W 83 ST & AMSTERDAM AVE | Hazardous Waste Generators, Transporters |
| 740A-0093-981 | 498 | NYP004331971 | FO 152 W 78 ST | Hazardous Waste Generators, Transporters |
| 740A-0093-982 | 499 | NYP004331989 | FO 148 W 78 ST | Hazardous Waste Generators, Transporters |
| 740A-0095-414 | 421 | NYP004323143 | W 82 ST LO COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0095-446 | 453 | NYP004323036 | FO 135 78 ST EO AMSTERDAM AVE | Hazardous Waste Generators, Transporters |
| 740A-0095-459 | 384 | NYP004322475 | FO 422-424 COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0095-461 | 382 | NYP004322483 | FO 426-428 COLUMBUS AVE NO 80 ST | Hazardous Waste Generators, Transporters |
| 740A-0095-462 | 383 | NYP004322491 | FO 430-32 COLUMBUS AVE NO 80 ST | Hazardous Waste Generators, Transporters |
| 740A-0095-466 | 458 | NYP004322954 | FO 140 N 79 ST EO AMSTERDAM AVE | Hazardous Waste Generators, Transporters |
| 740A-0095-479 | 463 | NYP004322947 | FO 9-11 W 81 ST EO COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0095-480 | 381 | NYP004323150 | FO 51-7 W 81 ST EO COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0096-530 | 427 | NYP004321915 | NWC 76 ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0096-553 | 389 | NYP004323655 | NW COLUMBUS & 77 ST | Hazardous Waste Generators, Transporters |
| 740A-0096-555 | 376 | NYP004322459 | NWC 79 ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0096-568 | 377 | NYP004322616 | SWC 79 & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0096-793 | 482 | NYP004323051 | NEC 83 ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0101-723 | 420 | NYP004414678 | 129 W 80TH ST & AMSTERDAM AV | Hazardous Waste Generators, Transporters |
| 740A-0102-987 | 464 | NYP004415584 | 47-49 75TH ST & CPW | Hazardous Waste Generators, Transporters |
| 740A-0103-019 | 422 | NYP004427522 | 468 82ND ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0104-706 | 461 | NYP004418547 | F/O 20TH W 76TH ST | Hazardous Waste Generators, Transporters |
| 740A-0109-778 | 454 | NYP004461216 | 130 W 80TH ST | Hazardous Waste Generators, Transporters |
| 740A-0118-622 | 478 | NYP004648887 | 219 CENTRAL PARK WEST | Hazardous Waste Generators, Transporters |
| 740A-0119-120 | 472 | NYP004652006 | 34 W 83RD ST | Hazardous Waste Generators, Transporters |
| 740A-0119-401 | 428 | NYP004628343 | W 76 ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0119-415 | 479 | NYP004631966 | 98 W 83 ST | Hazardous Waste Generators, Transporters |
| 740A-0119-505 | 423 | NYP004657276 | W 82 ST & COLUMBUS AV | Hazardous Waste Generators, Transporters |
| 740A-0120-601 | 438 | NYP004629028 | 25 W 76 ST | Hazardous Waste Generators, Transporters |
| 740A-0120-612 | 494 | NYP004629713 | 151 W 78 ST | Hazardous Waste Generators, Transporters |
| 740A-0120-686 | 495 | NYP004633319 | F/O 35 W 75 ST | Hazardous Waste Generators, Transporters |
| 740A-0120-728 | 501 | NYP004636353 | 18 W 83 ST & COLUMBUS | Hazardous Waste Generators, Transporters |
| 740A-0121-077 | 447 | NYP004657292 | 16-18 W 82 ST & COLUMBUS AV | Hazardous Waste Generators, Transporters |
| 740A-0121-079 | 439 | NYP004657466 | 55 W 82 ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0121-080 | 442 | NYP004657482 | 61 W 82 ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0121-143 | 402 | NYP004665659 | 108 W 81 ST | Hazardous Waste Generators, Transporters |
| 740A-0121-148 | 462 | NYP004665758 | 26 W 76 ST | Hazardous Waste Generators, Transporters |
| 740A-0121-151 | 451 | NYP004665790 | 111 W 82 ST | Hazardous Waste Generators, Transporters |
| 740A-0121-162 | 481 | NYP004666665 | 148 WEST 77TH STREET | Hazardous Waste Generators, Transporters |
| 740A-0122-566 | 380 | NYP004616215 | 18-120 79 ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0122-569 | 397 | NYP004660627 | 420 COLUMBUS & 80 ST | Hazardous Waste Generators, Transporters |
| 740A-0122-573 | 445 | NYP004628335 | OPP SIDE 116 W 76 ST | Hazardous Waste Generators, Transporters |
| 740A-0122-574 | 473 | NYP004624887 | 143-144 W 78 ST | Hazardous Waste Generators, Transporters |
| 740A-0122-575 | 480 | NYP004629689 | 147-145 W 78 ST | Hazardous Waste Generators, Transporters |
| 740A-0122-576 | 474 | NYP004629697 | 143-144 W 78 ST | Hazardous Waste Generators, Transporters |
| 740A-0122-578 | 432 | NYP004616223 | 120-28 W 79 & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0122-579 | 435 | NYP004636387 | 20 WEST 82ND STREET | Hazardous Waste Generators, Transporters |
| 740A-0122-580 | 441 | NYP004657474 | 51 W 82 & COLUMBUS AVE | Hazardous Waste Generators, Transporters |

Continued from previous page

| TT-ID | MAP-ID | FACILITY ID | FACILITY STREET | DATABASE |
|---------------|--------|--------------|------------------------------|--|
| 740A-0123-546 | 378 | NYP004584280 | NWC 79 ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0123-547 | 379 | NYP004616207 | SWC 79 ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0123-549 | 424 | NYP004657888 | N/E/C 82 ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0130-738 | 419 | NYR000214569 | 100 W 77TH ST | Hazardous Waste Generators, Transporters |
| 740A-0130-957 | 429 | NYP004747747 | W 76 ST & COLUMBUS AV | Hazardous Waste Generators, Transporters |
| 740A-0131-485 | 415 | NYP004724308 | 113 W 78 ST | Hazardous Waste Generators, Transporters |
| 740A-0131-586 | 457 | NYP004735023 | 21-23 W 82 ST | Hazardous Waste Generators, Transporters |
| 740A-0131-704 | 411 | NYP004748158 | OPP 341 COLUMBUS AVE & 76 ST | Hazardous Waste Generators, Transporters |
| 740A-0132-252 | 483 | NYP004748836 | NWC 83 & COLUMBUS AV | Hazardous Waste Generators, Transporters |
| 740A-0132-524 | 430 | NYP004748166 | 76TH ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 900A-0003-582 | 504 | 36061N1208 | 211 CENTRAL PARK W | Air Discharge Sites |

**Toxics Targeting
1 Mile Buffer Search Map**
American Museum of Natural History
New York, NY 10024



New York County



National Priority List (NPL)



Inactive Hazardous Waste Disposal Registry Site



Inact. Haz Waste Disp. Registry Qualifying



RCRA Corrective Action Facility



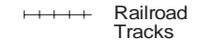
Subject Area



Waterbody



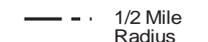
County Border



Railroad Tracks



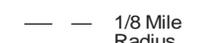
1 Mile Radius



1/2 Mile Radius



1/4 Mile Radius

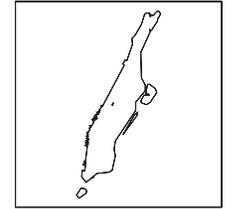
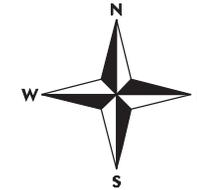


1/8 Mile Radius



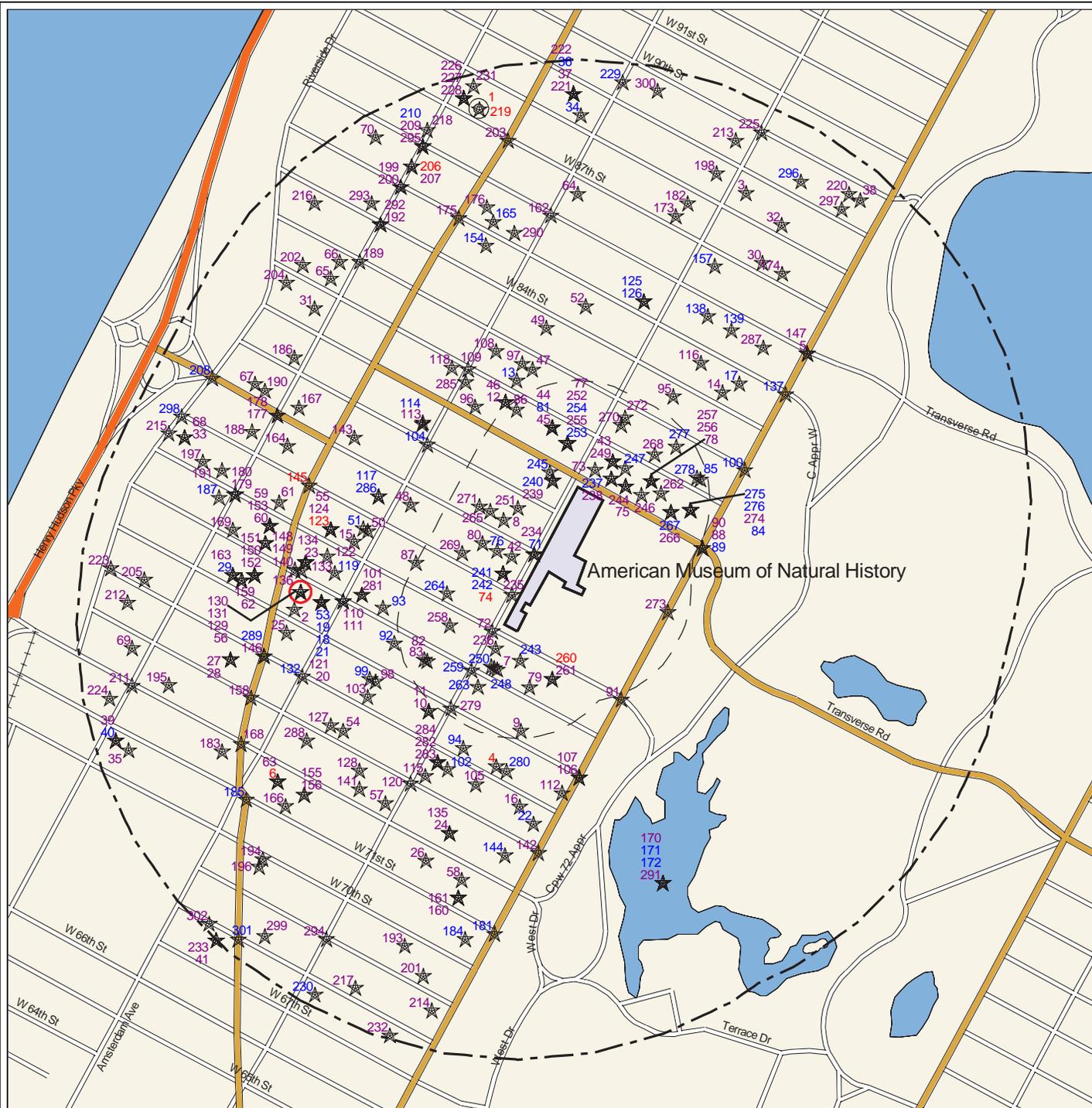
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Toxics Targeting 1/2 Mile Buffer Search Map American Museum of Natural History New York, NY 10024



New York County

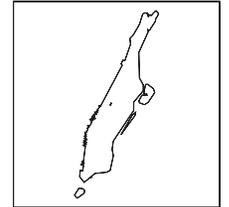
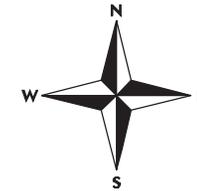
-  Delisted NPL Site
-  CERCLIS Superfund Non-NFRAP Site
-  CERCLIS Superfund NFRAP Site
-  Hazardous Waste Treater, Storer, Disposer
-  Hazardous Substance Waste Disposal Site
-  Solid Waste Facility
-  Brownfields Site
-  Hazardous Material Spill
-  MTBE Gasoline Additive Spill
-  Subject Area
-  Waterbody
-  County Border
-  Railroad Tracks
-  1 Mile Radius
-  1/2 Mile Radius
-  1/4 Mile Radius
-  1/8 Mile Radius



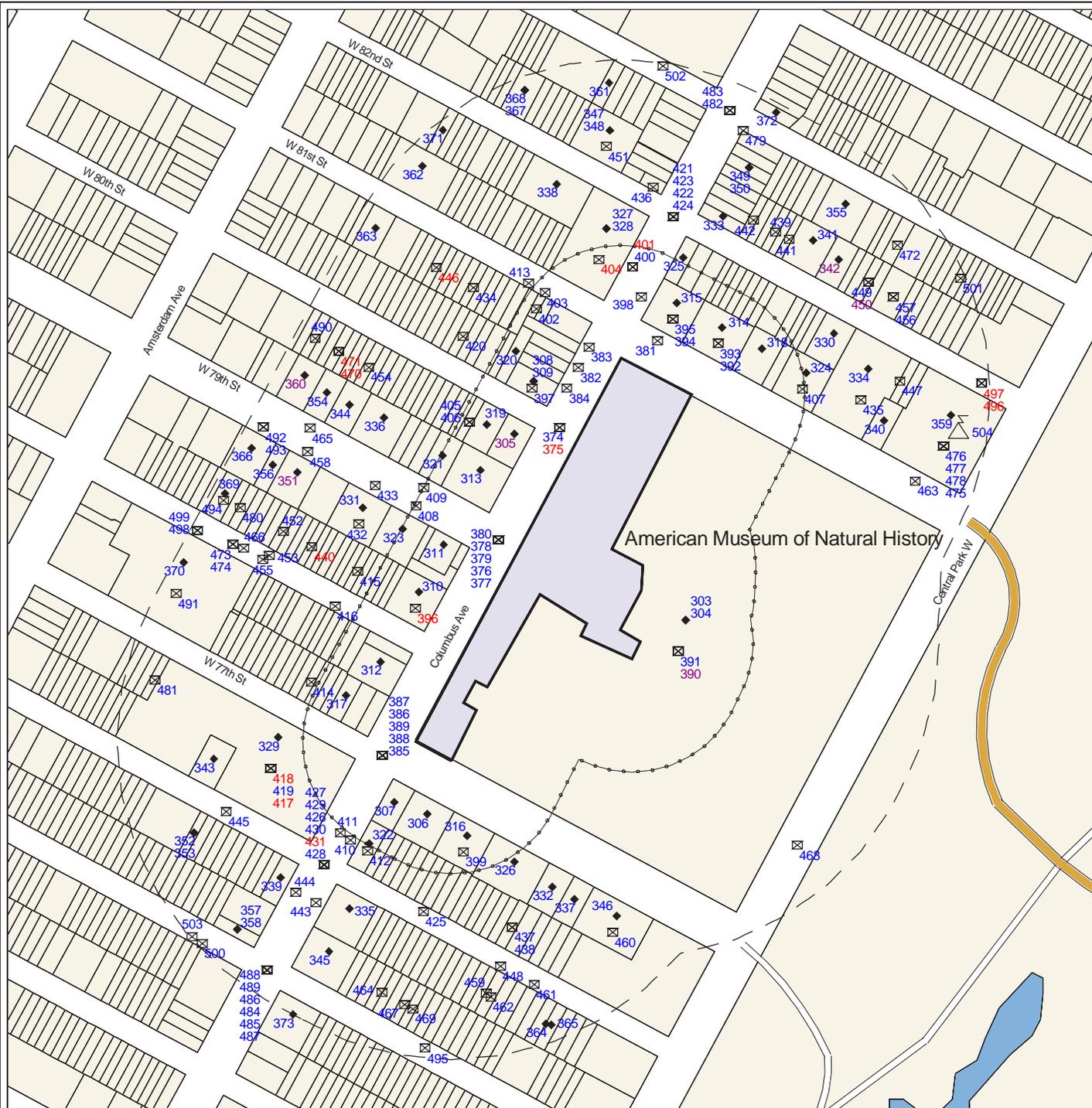
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Toxics Targeting 1/8 Mile Buffer Search Map

American Museum of Natural History
New York, NY 10024



New York County



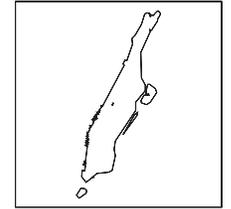
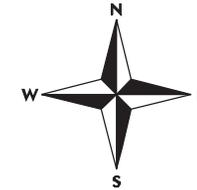
- Major Oil Storage Facility
- Chemical Storage Facility
- Toxic Release
- Wastewater Discharge
- Hazardous Waste Generator, Transp.
- Enforcement Docket Facility
- Air Release
- Env Qual Review E Designation
- Petroleum Bulk Storage Facility
- Historic Utility Site

- Subject Area
- Waterbody
- County Border
- Railroad Tracks
- 1/8 Mile Radius
- 250 Foot Radius

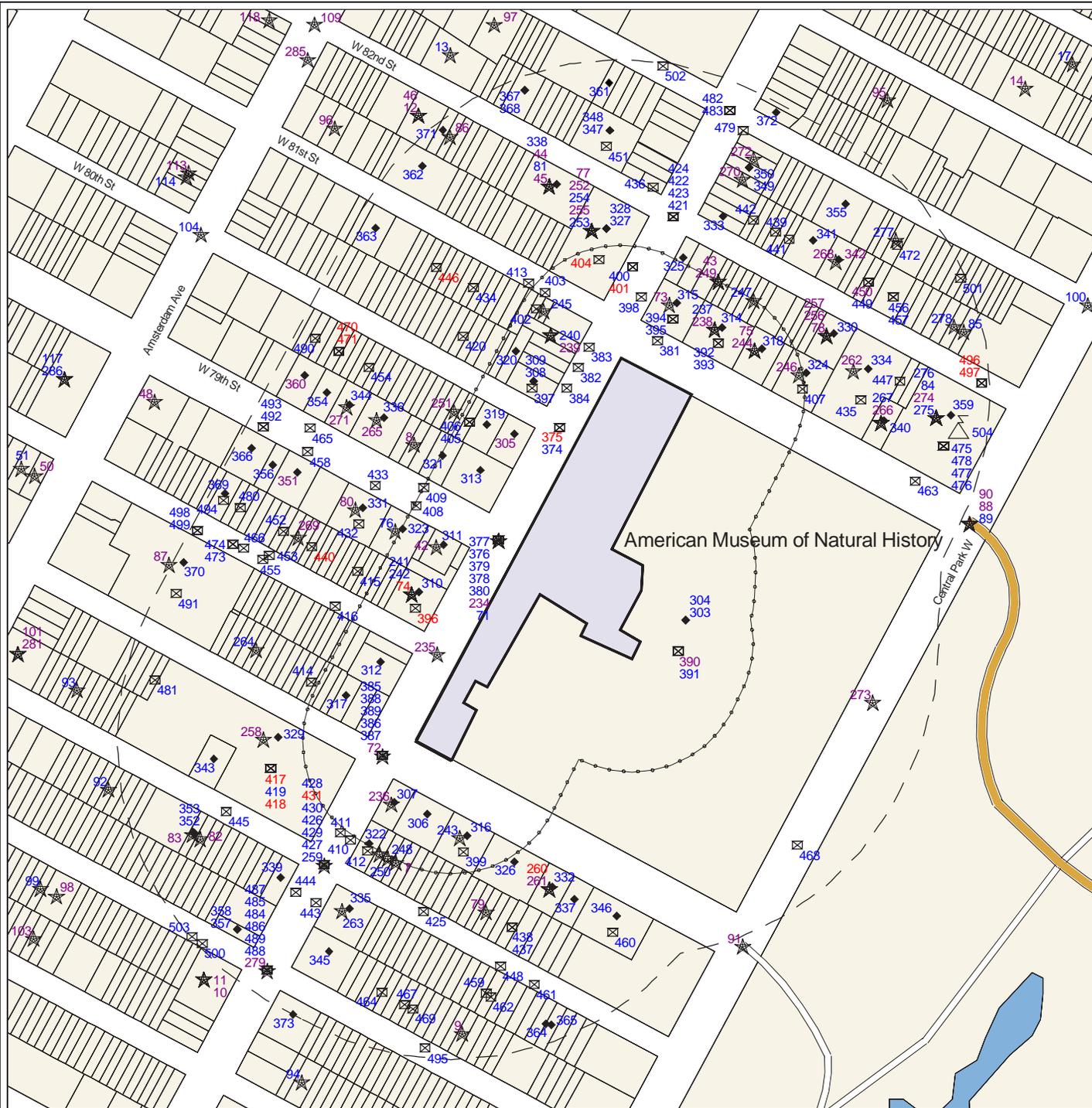
Scale: 1 inch = 327 feet

Toxics Targeting 1/8 Mile Buffer Closeup Map

American Museum of Natural History
New York, NY 10024



New York County



- | | |
|---|--|
| National Priority List (NPL) * | Delisted NPL Site ** |
| CERCLIS Superfund Non-NFRAP Site ** | CERCLIS Superfund NFRAP Site |
| Inactive Hazardous Waste Disposal Registry Site * | Inact. Haz Waste Disp. Registry Qualifying * |
| Hazardous Waste Treater, Storer, Disposer ** | RCRA Corrective Action Facility * |
| Hazardous Substance Waste Disposal Site ** | Solid Waste Facility ** |
| Major Oil Storage Facility **** | Brownfields Site ** |
| Chemical Storage Facility **** | Hazardous Material Spill ** |
| Toxic Release **** | MTBE Gasoline Additive Spill ** |
| Wastewater Discharge **** | Petroleum Bulk Storage Facility **** |
| Hazardous Waste Generator, Transp. **** | Historic Utility Site **** |
| Enforcement Docket Facility **** | Air Release **** |
| Env Qual Review E Designation ***** | Remediation Site Borders |
| Subject Area | Waterbody |
| County Border | Railroad Tracks |
| 1/8 Mile Radius | 250 Foot Radius |

Scale: 1 inch = 327 feet

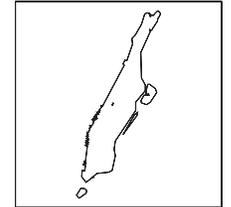
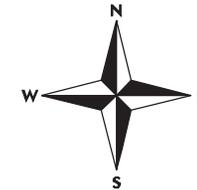
* 1 Mile Search Radius
**** 1/8 Mile Search Radius

** 1/2 Mile Search Radius
***** Onsite Search (250 Ft)

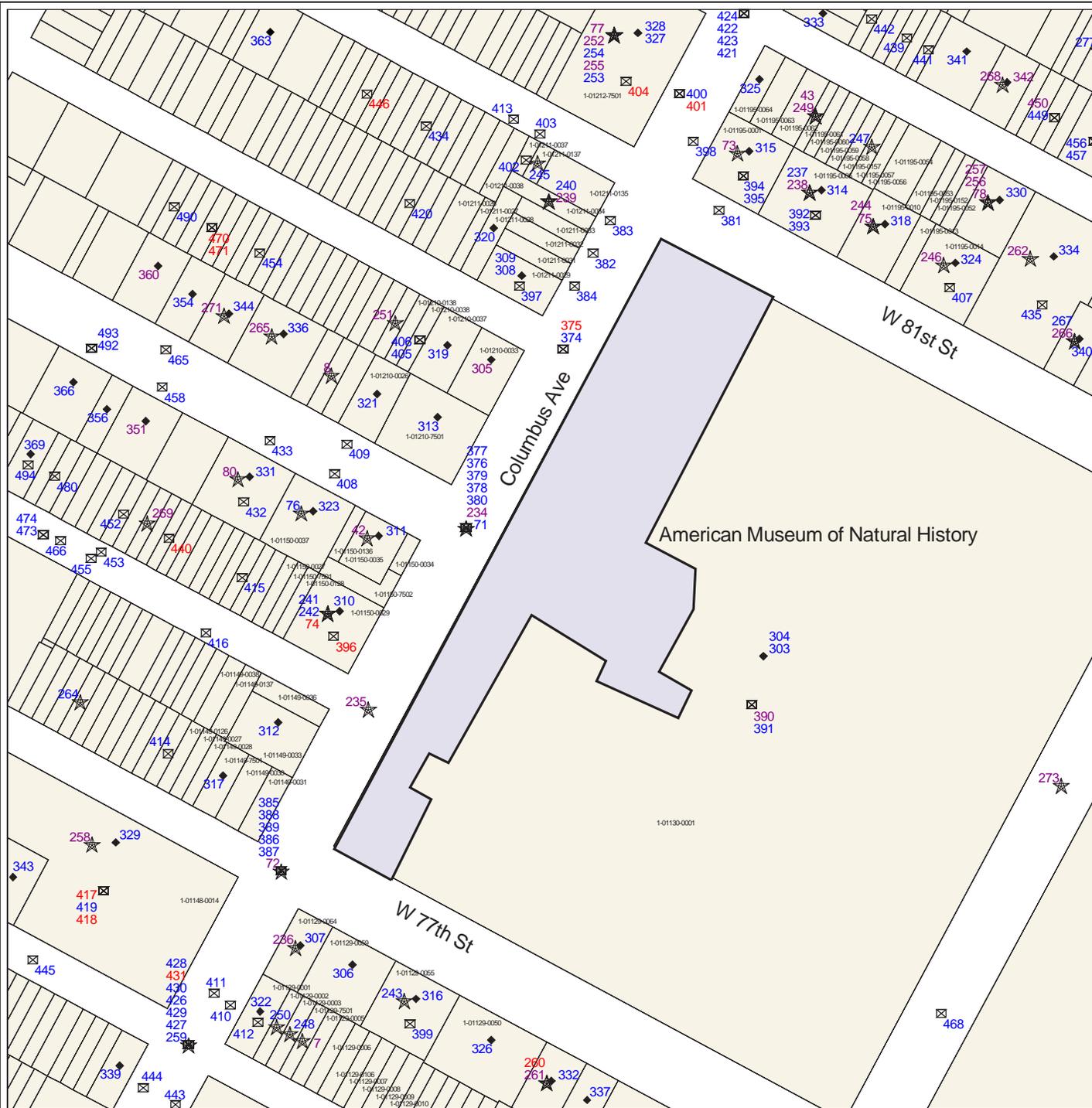
Toxics Targeting Tax Parcel Map

American Museum of Natural History

New York, NY 10024



New York County



- | | |
|---|--|
| National Priority List (NPL) | Delisted NPL Site |
| CERCLIS Superfund Non-NFRAP Site | CERCLIS Superfund NFRAP Site |
| Inactive Hazardous Waste Disposal Registry Site | Inact. Haz Waste Disp. Registry Qualifying |
| Hazardous Waste Treater, Storer, Disposer | RCRA Corrective Action Facility |
| Hazardous Substance Waste Disposal Site | Solid Waste Facility |
| Major Oil Storage Facility | Brownfields Site |
| Chemical Storage Facility | Hazardous Material Spill |
| Toxic Release | MTBE Gasoline Additive Spill |
| Wastewater Discharge | Petroleum Bulk Storage Facility |
| Hazardous Waste Generator, Transp. | Historic Utility Site |
| Enforcement Docket Facility | Air Release |
| Env Qual Review E Designation | Remediation Site Borders |
| Subject Area | Waterbody |
| County Border | Railroad Tracks |

Scale: 1 inch = 205 feet

Tax Parcel Information Table

American Museum of Natural History New York, NY 10024

Subject Parcel or Parcels

| BBL # | Address | Owner | Zoning District(s) | Building Class | # of Buildings | Year Built | Assessment | Lot Area |
|--------------|-----------------------|------------------|--------------------|----------------|----------------|------------|------------|----------|
| 1-01130-0001 | 200 CENTRAL PARK WEST | CULTURAL AFFAIRS | PARK | P7 | 7 | 1998 | 306495000 | 738000 |

Other Parcels Found On The Tax Parcel Map

| BBL # | Address | Owner | Zoning District(s) | Building Class | # of Buildings | Year Built | Assessment | Lot Area |
|--------------|---------------------|------------------------|--------------------|----------------|----------------|------------|------------|----------|
| 1-01129-0003 | 55 WEST 76 STREET | KEYAH GRANDE, | C1-8A | C5 | 1 | 1920 | 734400 | 2043 |
| 1-01212-7501 | 101 WEST 81 STREET | ENDICOTT APARTMENT CO | C1-8A R8B | RM | 1 | 1900 | 19235700 | 27364 |
| 1-01149-0038 | 108 WEST 78 STREET | 108 W 78TH ST CORP | R8B | C6 | 1 | 1900 | 580551 | 2492 |
| 1-01195-0052 | 50 WEST 82 STREET | PETER MAGNONE | R8B | C5 | 1 | 1900 | 321310 | 1635 |
| 1-01129-0006 | 49 WEST 76 STREET | 49 WEST LLC | R8B | C5 | 1 | 1920 | 401217 | 2146 |
| 1-01149-0031 | 101 WEST 77 STREET | 101 WEST 77TH STREET | C1-8A | C7 | 1 | 1900 | 2503800 | 3240 |
| 1-01211-0028 | 103 WEST 80 STREET | DJL MAGNONE LLC | R8B | C1 | 1 | 1900 | 1128150 | 3550 |
| 1-01129-0064 | 66 WEST 77 STREET | FANNY GRUNBERG & ASSO | R10A | D9 | 1 | 1926 | 3731400 | 5108 |
| 1-01195-0157 | 66 WEST 82 STREET | 66-68 WEST 82ND STREE | R8B | C5 | 1 | 1900 | 427295 | 1992 |
| 1-01211-0032 | 426 COLUMBUS AVENUE | CONSOBRINI PROPERTIES | C1-8A | K2 | 1 | 1900 | 1522800 | 2550 |
| 1-01210-0026 | 117 WEST 79 STREET | DLRH ASSOCIATES LLC | R10A | H9 | 1 | 1900 | 6727950 | 5849 |
| 1-01210-0138 | 106 WEST 80 STREET | G.S. JAMES, LLC | R8B | C5 | 1 | 1910 | 459459 | 1788 |
| 1-01211-0038 | 110 WEST 81 STREET | WALLIING, ALEXANDERR | R8B | C5 | 1 | 1900 | 297133 | 2346 |
| 1-01129-0059 | 52 WEST 77 STREET | EQR-50 WEST 77TH, LLC | R10A | D6 | 1 | 1903 | 12125250 | 10216 |
| 1-01211-0031 | 424 COLUMBUS AVENUE | CONSOBRINI PROPERTIES | C1-8A | K2 | 1 | 1900 | 1682100 | 2550 |
| 1-01150-7501 | 105 WEST 78 STREET | OWNER / AGENT | R8B | R1 | 1 | 1900 | 192202 | 1668 |
| 1-01210-0037 | 102 WEST 80 STREET | COLUMBUS 80 TENANTS C | C1-8A R8B | D4 | 1 | 1901 | 2122200 | 6138 |
| 1-01195-0014 | 25 WEST 81 STREET | TAYLOR ESTATES INC | R10A | D1 | 1 | 1927 | 8139600 | 10217 |
| 1-01211-0033 | 428 COLUMBUS AVENUE | R.A.V. BAROUCK, LLC | C1-8A | K9 | 1 | 1910 | 786150 | 2550 |
| 1-01129-0055 | 44 WEST 77 STREET | PARK 44 CORP | R10A | D4 | 1 | 1909 | 8503200 | 10216 |
| 1-01211-0026 | 123 WEST 80 STREET | 80 COLUMBUS OWNERS CO | R8B | C6 | 2 | 1890 | 922500 | 3882 |
| 1-01210-0038 | 104 WEST 80 STREET | DOULTON REALTY LLC | R8B | C5 | 1 | 1910 | 412200 | 1788 |
| 1-01150-0034 | 392 COLUMBUS AVENUE | 42-78/86 REALTY, LLC | R10A | C7 | 1 | 1920 | 484754 | 963 |
| 1-01150-7502 | 386 COLUMBUS AVENUE | COLUMBUS HOUSE | R10A | RM | 2 | 1988 | 5665495 | 3968 |
| 1-01195-0054 | 56 WEST 82 STREET | SANDBERG MANAGEMENT CR | R8B | C6 | 1 | 1900 | 961650 | 4973 |
| 1-01149-7501 | 105 WEST 77 STREET | THE MUSEUM 77 CONDO | C1-8A | RM | 1 | 1900 | 1636202 | 3523 |
| 1-01195-0001 | 441 COLUMBUS AVENUE | 51 WEST 81ST STREET C | R10A | D4 | 1 | 1905 | 7278300 | 10216 |
| 1-01129-0010 | 39 WEST 76 STREET | 39 WEST 76TH STREET P | R8B | A4 | 1 | 1910 | 720672 | 2342 |
| 1-01150-0035 | 102 WEST 79 STREET | 102 ASSOCIATES LLC | R10A | D9 | 1 | 1931 | 2561400 | 4826 |
| 1-01195-0013 | 33 WEST 81 STREET | CAROL LYNTON | R10A | A4 | 1 | 1900 | 224762 | 2554 |
| 1-01195-0060 | 72 WEST 82 STREET | PILAR S. DOWNING REAL | R8B | C5 | 1 | 1892 | 354940 | 1635 |
| 1-01195-0152 | 52 WEST 82 STREET | MAGNONE, PETER | R8B | C5 | 1 | 1900 | 321310 | 1635 |
| 1-01211-0137 | 106 WEST 81 STREET | AHRC NYC PROPERTIES,I | R8B C1-8A | C3 | 1 | 1900 | 344854 | 1126 |
| 1-01211-0034 | 430 COLUMBUS AVENUE | COLUMBUS MYLE CORP | C1-8A R8B | C6 | 1 | 1900 | 900000 | 3328 |
| 1-01129-0009 | 41 WEST 76 STREET | HUVILINNA INC | R8B | C5 | 1 | 1900 | 324000 | 2248 |
| 1-01149-0030 | 103 WEST 77 STREET | DELTER REALTY LLC C/O | C1-8A | C7 | 1 | 1910 | 1310850 | 3523 |
| 1-01195-0063 | 78 WEST 82 STREET | WALBER 82ND ST ASSOCT | C1-8A | C1 | 1 | 1900 | 841050 | 3576 |
| 1-01149-0033 | 370 COLUMBUS AVENUE | 370 COLUMBUS REALTY L | C1-8A R8B | D9 | 1 | 1910 | 2212200 | 8137 |

| BBL # | Address | Owner | Zoning District(s) | Building Class | # of Buildings | Year Built | Assessment | Lot Area |
|--------------|---------------------|-----------------------|--------------------|----------------|----------------|------------|------------|----------|
| 1-01150-0037 | 112 WEST 79 STREET | 118 TENANTS CORP | R10A | D4 | 1 | 1925 | 7111350 | 9604 |
| 1-01150-0029 | 380 COLUMBUS AVENUE | JOBEN REALTY ASSOCIAT | C1-8A | D6 | 1 | 1900 | 4555800 | 10217 |
| 1-01150-0136 | 110 WEST 79 STREET | 110 W 79 ST CO | R10A | S2 | 1 | 1900 | 178364 | 1380 |
| 1-01150-0128 | 103 WEST 78 STREET | GAVIN G SPENCER | R8B | B9 | 1 | 1910 | 137203 | 1720 |
| 1-01210-7501 | 101 WEST 79 STREET | THE PARK BELVEDERE CO | R10A | RM | 1 | 1986 | 25195061 | 12191 |
| 1-01195-0059 | 70 WEST 82 STREET | 70 W. 82ND, LLC | R8B | C5 | 1 | 1900 | 423142 | 1839 |
| 1-01210-0033 | 410 COLUMBUS AVENUE | ORLEANS REALTY,LLC | C1-8A | D7 | 1 | 1900 | 10255050 | 6539 |
| 1-01129-0008 | 43 WEST 76 STREET | 43 WEST 76TH STREET | R8B | C5 | 1 | 1920 | 514449 | 2146 |
| 1-01129-7501 | 53 WEST 76 STREET | PARK 76TH CONDO | C1-8A | RM | 1 | 1900 | 698850 | 2043 |
| 1-01211-0135 | 100 WEST 81 STREET | WEST 81 ST OWNERS COR | C1-8A | D4 | 1 | 1920 | 1875600 | 4605 |
| 1-01195-0056 | 62 WEST 82 STREET | KELLY , JOHN H | R8B | C0 | 1 | 1899 | 188640 | 1998 |
| 1-01129-0106 | 47 WEST 76 STREET | 47 W 76 ST TENANTS CO | R8B | C6 | 1 | 1920 | 461370 | 2248 |
| 1-01211-0027 | 119 WEST 80 STREET | 119 WEST 80TH ST TENA | R8B | C6 | 1 | 1900 | 245829 | 1700 |
| 1-01129-0007 | 45 WEST 76 STREET | 45 WEST 76TH STREET L | R8B | C5 | 1 | 1900 | 424569 | 2043 |
| 1-01195-0053 | 54 WEST 82 STREET | 54 WEST 82 ST CORP | R8B | C6 | 1 | 1900 | 516587 | 2247 |
| 1-01149-0028 | 109 WEST 77 STREET | JOHN RICHARD STARKEY | R8B | C5 | 1 | 1910 | 533871 | 1925 |
| 1-01149-0036 | 376 COLUMBUS AVENUE | DONN R. BERNSTEIN | C1-8A R8B | D4 | 1 | 1926 | 821340 | 2727 |
| 1-01149-0137 | 106 WEST 78 STREET | WHIPPLE HOUSE INC | R8B | C6 | 1 | 1920 | 578636 | 2412 |
| 1-01195-0061 | 74 WEST 82 STREET | OWNERS OF 74 W 82ND S | R8B | C6 | 1 | 1900 | 260000 | 1635 |
| 1-01129-0050 | 40 WEST 77 STREET | 4077 OWNERS CORP | R10A | D4 | 1 | 1928 | 13927950 | 14493 |
| 1-01150-0027 | 107 WEST 78 STREET | 107 W 78 STREET CORP | R8B | C6 | 1 | 1900 | 433550 | 1720 |
| 1-01149-0126 | 113 WEST 77 STREET | 113 WEST 77TH REALTY | R8B | C6 | 1 | 1930 | 401468 | 1939 |
| 1-01129-0002 | 57 WEST 76 STREET | LAURENT,FELIX | C1-8A | C7 | 1 | 1900 | 359252 | 2043 |
| 1-01148-0014 | 149 WEST 76 STREET | BOARD OF EDUCATION | R8B C1-8A | W1 | 1 | 1956 | 33464700 | 88365 |
| 1-01195-0062 | 76 WEST 82 STREET | WALBER 82ND ST ASSOCT | C1-8A | C1 | 1 | 1900 | 1131300 | 3576 |
| 1-01195-0005 | 45 WEST 81 STREET | EXCELSIOR | R10A | H9 | 1 | 1923 | 12773700 | 12771 |
| 1-01195-0058 | 68 WEST 82 STREET | 66-68 WEST 82ND STREE | R8B | C5 | 1 | 1900 | 461698 | 1839 |
| 1-01211-0037 | 108 WEST 81 STREET | BREN-EL REALTY | R8B | S5 | 1 | 1910 | 197899 | 918 |
| 1-01195-0010 | 35 WEST 81 STREET | BERGEL 81ST COMPANY | R10A | D4 | 1 | 1914 | 4701150 | 7775 |
| 1-01195-0064 | 80 WEST 82 STREET | WALBER 82ND ST ASSOCT | C1-8A | C7 | 1 | 1910 | 2083500 | 3065 |
| 1-01129-0001 | 59 WEST 76 STREET | 341 COLUMBUS REALTYCO | C1-8A | D9 | 1 | 1926 | 3767850 | 4087 |
| 1-01195-0057 | 64 WEST 82 STREET | KRIEGER REALTY CORP | R8B | C5 | 1 | 1900 | 389749 | 1941 |
| 1-01149-0027 | 111 WEST 77 STREET | MAGNONE PETER | R8B | C5 | 1 | 1900 | 450262 | 2090 |
| 1-01211-0029 | 418 COLUMBUS AVENUE | 101 W 80 OWNERS CORP | C1-8A | D4 | 1 | 1900 | 4320000 | 5118 |
| 1-01129-0005 | 51 WEST 76 STREET | STELEX REALTY LLC | R8B | C0 | 1 | 1972 | 233246 | 2146 |

Section Two: Toxic Site Profiles

The heading of each *Toxic Site Profile* refers to the site's map location and details:

- The facility name, address, city, state, and zip code.
- Any changes that were made to a site's address in order to map its location.
- The site mapping method that was used (see *How Sites are Located*, at the end of this section for more information).

Toxic Site Profiles summarize information provided by site owners or operators and government agencies regarding various toxic chemical activities reported at each site, such as:

- Whether chemicals were stored, produced, transported, discharged or disposed of.
- The name of chemicals and their Chemical Abstract Series (CAS) numbers.
- The amount of chemicals and the units (gallons/pounds) the chemical was measured in.
- Whether the site or storage tanks at the site are currently active or inactive.
- Special codes used by government agencies to regulate hazardous waste activities at some sites, or a complete description of the codes follows the profiles section.

For selected individual chemicals reported at various toxic sites, some potential health effect summary information appears below the site profile. Each potential health effect summary identifies chemicals by name and by Chemical Abstract Series (CAS) Number. An "x" under each potential health effect heading indicates positive toxicity testing results reported by the National Institute of Occupational Safety and Health's Registry of Toxic Effects of Chemical Substances (RTECS). Some chemicals (mostly appearing in profiles of Hazardous Waste facilities), are reported as mixtures, and RTECS health effect information is only available for individual chemicals. In addition, RTECS only provides information on approximately 100,000 common chemicals. Consequently, the absence of potential health effect summary information for a particular chemical identified in a Toxic Site Profile does not necessarily mean that the chemical does not pose potential health effects.

The Maximum Contaminant Level (MCL) in drinking water allowed for selected chemicals is also noted. In most cases, the only applicable MCL has been set by the New York State Department of Health (NYSDOH). Where NYSDOH has not set an MCL, the federal standard, if one exists, is listed and is marked by an asterisk.

Presented below are column headings that describe the health effect definitions used in RTECS and applicable New York State and federal drinking water standards. Reference sources for information presented in this section are also provided.

ACUTE TOX: **Acute Toxicity:** Short-term exposure to this chemical can cause lethal and non-lethal toxicity effects not included in the following four categories.

TUMOR TOX: **Tumorigenic Toxicity:** The chemical can cause an increase in the incidence of tumors.

MUTAG TOX: **Mutagenic Toxicity:** The chemical can cause genetic alterations that are passed from one generation to the next.

REPRO TOX: **Reproductive Toxicity:** May signify one of the following effects: maternal effects, paternal effects, effects on fertility, effects on the embryo or fetus, specific developmental abnormalities, tumorigenic effects, or effects on the newborn (only positive reproductive effects data for mammalian species are referenced).

IRRIT TOX: **Primary Irritant:** The chemical can cause eye or skin irritation.

MCL: **Drinking Water Standard - Maximum Contaminant Level (MCL)** listed under Drinking Water Supplies, 10 NYCRR Part 5, Subparts 1.51(f),(g), and (h) for NYDOH MCL's and under the Safe Drinking Water Act, 40 CFR 141, Subparts B and G, (* indicates value for total trihalomethanes) for federal MCL's.

Reference Source for Toxicity Information: Registry of Toxic Effects of Chemical Substances (RTECS), NIOSH (on-line database); For further information, contact: NIOSH, 4676 Columbia Parkway, Cincinnati, OH, 45226, 800/35-NIOSH.

Reference Source for Drinking Water Standards: New York State Department of Health, Bureau of Toxic Substances Assessment, 2 University Place, Room 240, Albany, NY 12203, 518/458-6373.

U.S. Environmental Protection Agency, Office of Drinking Water, 401 M St SW, Mailstop WH-556, Washington, DC, 20460, 202/260-5700.

Inactive Hazardous Waste Disposal Site Classifications:

- 1 -- Causing or presenting an imminent danger of causing irreversible or irreparable damage to the public health or the environment -- immediate action required;
- 2 -- Significant threat to the public health or environment -- action required;
- 3 -- Does not Present a significant threat to the environment or public health -- action may be deferred;
- 4 -- Site properly closed --requires continued management;
- 5 -- Site properly closed, no evidence of present or potential adverse impact -- no further action required;
- 2a -- This temporary classification has been assigned to sites where there is inadequate data to assign them to the five classifications specified by law;
- A -- Work underway and not yet complete;
- P -- Potential Site;
- D₁, 2, 3 -- Delisted Site (1: hazardous waste not found; 2: remediated; 3: consolidated site or site incorrectly listed);
- C -- Remediation Complete (formerly D2).



NO NATIONAL PRIORITIES LIST (NPL) SITES IDENTIFIED WITHIN 1 MILE SEARCH RADIUS



NO INACTIVE HAZ WASTE DISPOSAL REGISTRY OR REGISTRY-QUALIFYING SITES IDENTIFIED WITHIN 1 MILE SEARCH RADIUS



NO RCRA CORRECTIVE ACTION SITES IDENTIFIED WITHIN 1 MILE SEARCH RADIUS



NO CERCLIS SUPERFUND SITES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS



BROWNFIELDS SITES (STATE & LOCAL) IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identification Number 1

267-273 WEST 87TH STREET

Facility Id: C231096

267-273 WEST 87TH STREET, NEW YORK, NY 10024

TT-Id: 320A-0004-384

MAP LOCATION INFORMATION

Site location mapped by: MAP COORDINATE (1)
Approximate distance from property: 2415 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Brownfield Program: Brownfield Cleanup Program

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
BROWNFIELD CLEANUP PROGRAM

CLASSIFICATION CODE: A

REGION: 2

SITE CODE: C231096

DEC ID: 507420

CLASSIFICATION CODE DESCRIPTION:

Work is underway and not yet complete.

NAME OF SITE: 267-273 West 87th Street

STREET ADDRESS: 267-273 West 87th Street

CITY: New York ZIP: 10024

TOWN: New York City

COUNTY: New York

ESTIMATED SIZE: 0.23 Acre

SITE TYPE: Dump- Structure- Lagoon- Landfill- Treatment Pond-

INSTITUTIONAL/ENGINEERING CONTROLS:

None reported

CROSS REFERENCES:

None reported

SITE OWNER/OPERATOR/REPOSITORY INFORMATION:

CURRENT OWNER(S):

NAME: Riverview Operating Co., LLC
ADDRESS: c/o Dr. Craig Rodgers
872 Massachusetts Ave. #908
Cambridge, NY 02139

Owner Type: Innocent Owner NonRegistry-HazSubs

OWNER(S) DURING DISPOSAL:

OPERATOR(S) DURING DISPOSAL:

APPLICANT REQUESTOR(S):

NAME: QSB 267 Property Co, LLC
Andrew Till
ADDRESS: c/o Simon Baron Development, LLC
757 Third Avenue, Suite 1701
New York, NY 10017

DOCUMENT REPOSITORY(S):

NAME: St. Agnes Public Library-Bloomingdale Branch
ADDRESS: 444 Amsterdam Avenue
New York, NY 10024

NAME: Manhattan Community Board #7
Mark Diller
ADDRESS: 250 West 87th Street
New York, NY 10024

HAZARDOUS WASTE DISPOSAL PERIOD:

SITE DESCRIPTION:

Location: The site is located at 267-273 West 87th street in the Upper West Side neighborhood of Manhattan, New York. The site is approximately 0.23 acres(10,070 square-foot). Site Features: The site, which consists of two parcels of land, Block 1235, Lots 5 and 7. Lot 5 is improved with a three-story parking garage structure with a basement. Lot 7 is improved with a seven-story parking garage with a basement. Each lot has 50 feet of frontage along the north side of West 87th Street. Current Zoning and Land Use: The site is zoned R10A which allows mixed residential and commercial use. The site is currently vacant and inactive, and intended use will be for Residential and Commercial. The surrounding parcels are currently used for a mixed-use of residential and commercial complexes.

Past Use of the Site/Historical Use: The site was historically developed with two structures, which were possibly indicative of stables, in 1902. By 1912 the portion of the site identified as Lot 5 was improved with the current site building. The portion of the site identified as Lot 7 was improved with a structure identified as N.Y. Cab Company. This structure appeared to be the same structure depicted on-site in 1902. The current site building on Lot 7 was constructed in 1916. The entire site is currently utilized as a parking garage.

Geology and Hydrogeology: The site is approximately 80 feet above mean sea level. The topography of the site is generally level, and the surrounding area slopes to the west-southwest toward the Hudson River. The subsurface strata at the site consists

of historic urban fill material consisting of sands, silts, clays and brick fragments encountered ranging from 0.2 to 7.5 feet below ground surface. Groundwater was encountered at depths ranging from approximately 2 to 4 feet below ground surface. Based on groundwater gauging, localized groundwater within the bedrock is estimated to flow to the west.

CONFIRMED HAZARDOUS WASTE DISPOSED:

| TYPE | QUANTITY |
|-------------------------|----------|
| chromium | UNKNOWN |
| selenium | UNKNOWN |
| tetrachloroethene (PCE) | UNKNOWN |
| ethylbenzene | UNKNOWN |
| xylene (mixed) | UNKNOWN |
| toluene | UNKNOWN |
| trichloroethene (TCE) | UNKNOWN |
| sodium | UNKNOWN |
| naphthalene | UNKNOWN |
| cis-1,2-dichloroethene | UNKNOWN |

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides. Soil: A total of twenty-four samples were collected at depth ranging from 1 to 15.5 feet below ground bgs). Petroleum-related VOCs, 1,2,4-trimethylbenzene, ethylbenzene, and n-propylbenzene were detected at depth of 4 to 7.5 feet bgs at the south and southwestern end of the property, including elevated level of total xylenes with a maximum concentrations of 620 parts per million(ppm) exceed the soil cleanup objectives(SCOs) for unrestricted use(0.3ppm). Elevated levels of metals were detected at the east, northeast, and southwestern portion of the property. Average concentrations of chromium found on-site (approximately 51 ppm) slightly exceed the soil cleanup objective (SCO) for unrestricted use (30 ppm).

Metals were found one location of off-site of the property. Concentrations of chromium, trivalent found off-site (50.8 ppm to 70.8 ppm) slightly exceed the soil cleanup objectives for unrestricted use (30ppm). Groundwater: Two bedrock monitoring wells were installed on-site of the property and one bedrock monitoring well was installed off-site of the property at a depth of 15 feet bgs. An elevated levels of TCE and its associated degradation products were found in groundwater at the southeast end at lot 7 of the site, significantly high and exceed groundwater standards (5 ppb), with a maximum concentration of 160 ppb. An elevated levels of PCE also was detected at the southeast end at Lot 7 of the site, exceed groundwater standards (5 ppb), with a maximum concentration of 880 ppb, at a 15 feet below groundwater table near underground storage tanks (USTs) area. A moderate amount of BTEX were found at the northwest end of the site. An Elevated levels of total and dissolved metals were found in groundwater at the southwest (Lot 5) and southeast (Lot 7) end of the site, exceed groundwater standards. A moderate amount of BTEX and elevated levels of total and dissolved metals were found, with maximum concentration of sodium is 166,000 ppb down-gradient of off-site at the south end of the site at a depth of 30 feet bgs.

Soil Vapor & Indoor Air: TCE was detected in soil vapor at elevated concentrations of 2,400 microgram per cubic meter ($\mu\text{m}/\text{m}^3$) at the east end of the site and in indoor air at concentrations of 8.4 $\mu\text{g}/\text{m}^3$ at the central portion (Lot 7) of the site. BETX(benzene, ethylbenzene, toluene, and xylene) and tetrachloroethylene(PCE) were found at the east, west, north, and south end of the site, an elevated levels of PCE with a maximum concentrations of 7,100 $\mu\text{g}/\text{m}^3$ at the east end of the site. A moderate levels of VOCs including PCE, TCE and their degradation products were found of off-site of the outdoor air samples.

Data does not indicate any off-site impacts in soil vapor related to the site.

ASSESSMENT OF HEALTH PROBLEMS:

Direct contact with contaminants in the soil is unlikely because the site is covered with buildings and pavement. People may contact site related contaminants if they dig below the surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into the overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of the buildings, is referred to as soil vapor intrusion. Because the site is vacant, the inhalation of site-related contaminants due to soil vapor intrusion does not represent a current concern at the on-site buildings, but the potential exists for people to inhale site contaminants due to soil vapor intrusion at off-site buildings.

PROJECT COMPLETIONS:

Operable Unit 01 - Remedial Program

| PROJECT | DESCRIPTION | END DATE | STATUS |
|------------------------|-------------|------------|--------|
| Remedial Investigation | | 06/17/2016 | Actual |



NO SOLID WASTE FACILITIES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS



NO HAZARDOUS WASTE TREATMENT/STORAGE/DISPOSERS IDENTIFIED WITHIN THE 1/2 MILE SEARCH RADIUS



HAZARDOUS MATERIAL SPILLS INTRODUCTION

The Hazardous Material Spills in this section are divided into eight spill cause groupings. These include:

Active Spills Section: Spills with incomplete paperwork that may or may not be cleaned up (See Date Cleanup Ceased)

- 1) Tank Failures
- 2) Tank Test Failures
- 3) Unknown Spill Cause or Other Spill Cause Hazardous Spills
- 4) Miscellaneous Spill Causes: Equipment Failure, Human Error, Tank Overfill, Deliberate Spill, Traffic Accidents, Housekeeping, Abandoned Drum, Vandalism and Storms.

Closed Status Spills Section: Spills with completed paperwork that may or may not be cleaned up (See Date Cleanup Ceased)

- 5) Tank Failures
- 6) Tank Test Failures
- 7) Unknown Spill Cause or Other Spill Cause Hazardous Spills
- 8) Miscellaneous Spill Causes: Equipment Failure, Human Error, Tank Overfill, Deliberate Spill, Traffic Accidents, Housekeeping, Abandoned Drum, Vandalism and Storms.

All spills within each spill cause category are presented in order of proximity to the subject site address.

Please note that spills reported within 0.25 mile (or one-eighth mile in New York City) are mapped and profiled.

Between 0.25 mile (or one-eighth mile in New York City) and 0.5 mile, only the following spills are mapped and profiled:

- * Tank Failures;
- * Tank Test Failures;
- * Unknown Spill Cause or Other Spill Cause;
- * Spills greater than 100 units of quantity; and
- * Spills reported in the NYSDEC Fall 1998 MTBE Survey.

A table at the end of each section presents a listing of reported Miscellaneous Spills with less than 100 units located between 0.25 mile (or one-eighth mile in Manhattan) and 0.5 mile. These spills are neither mapped nor profiled.



NO ACTIVE TANK FAILURES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS



ACTIVE TANK TEST FAILURES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identification Number 2



TTF

215 WEST 75TH ST
APT BUILDING

NEW YORK, NY

Spill Number: 1409035

Close Date:

TT-Id: 520A-0303-446

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 1299 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
Notifier Type: Other
Caller Name:
DEC Investigator: SXMAHAT

Spiller: APT BUILDING
Notifier Name:
Caller Agency:
Contact for more spill info: CHRIS QUINTANA

Spiller Phone:
Notifier Phone:
Caller Phone:
Contact Person Phone:

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 12/05/2014 | | TANK TEST FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | |

Caller Remarks:

8000 gal tank

DEC Investigator Remarks:

DEC Piper spoke with Chris Q. Tank is empty and failed a test. Temp tank is being set up and repairs will be made to tank. System will be retested prior to be put back into use.

2-374466

3/18/16: Mahat DEC Mahat received an email update from the contractor. A repair and retest was performed on the tank system. A report will be submitted to the Department by 3/31/16.

Map Identification Number 3



TUZ MANAGMENT
595 COLUMBUS AVE

MANHATTAN, NY

Spill Number: 0808308

Close Date:
TT-Id: 520A-0220-617

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 2101 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: P1
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
Notifier Type: Tank Tester
Caller Name:
DEC Investigator: VXBREVDO

Spiller: LATISHA – TUZ MANAGMENT
Notifier Name:
Caller Agency:
Contact for more spill info: LISETTE HERNANDEZ

Spiller Phone:
Notifier Phone:
Caller Phone:
Contact Person Phone: (718) 378-3000

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 10/23/2008 | | TANK TEST FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | |

Caller Remarks:

TANK TEST FAILURE ON A 15,000 GALLON TANK, DRY LEAK. UNK IF IT IS A UST OR ABOVE GROUND STORAGE TANK. NO PRODUCT WAS SPILLED.

DEC Investigator Remarks:

PBS 2-601347 Owner: Goddard Riverside HDFC, Inc.

595 Columbus Ave, NY, NY 10024 Sent TTF Ltr to: Mr. Winston (212-765-7900) T.U.C. Mgmt Co. Inc. 119 West 57th St. Suite 1620 NY NY 10019-2303

07/16/13 – Spill Case is transferred from Moses Ajoku (PBS Unit) to Brevdo (Section B) as per DER Region 2 decision – Tank Test Failure Spill Case. VB



ACTIVE UNKNOWN CAUSE SPILLS AND OTHER CAUSE SPILLS IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identification Number 4

CON ED

NEW YORK, NY

Spill Number: 1502443

Close Date:

TT-Id: 520A-0309-017



33 W 74TH ST

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (3)

Approximate distance from property: 827 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN

Notifier Type: Other

Caller Name:

DEC Investigator: Con Ed Unassigned

Spiller: ERT - UNKNOWN

Notifier Name:

Caller Agency:

Contact for more spill info: ERT

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: (212) 580-8383

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
|-------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 06/04/2015 | | UNKNOWN | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | | PETROLEUM | 0.25 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

found in excavation, c/u pending

DEC Investigator Remarks:

6/5/15: Mahat Spill case has been assignend to Con Ed Unassigned. EMIS : 241045 [Crossed Referenced]

Map Identification Number 5



86 STREET TRANSVERSE DPR –DDC

86TH STREET & TRANSVERSE ROAD

MANHATTAN, NY

Spill Number: 9502313

Close Date:

TT-Id: 520A-0096-489

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 1560 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: W 86TH ST / TRANSVERSE RD
 Revised zip code: 10024

Source of Spill: UNKNOWN
 Notifier Type: Responsible Party
 Caller Name: WILLIAM FENNEL
 DEC Investigator: ADZHITOM

Spiller: NYC DEPT OF PARKS
 Notifier Name:
 Caller Agency: NYC DGS
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone: (718) 937-3286
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 05/23/1995 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIESEL | PETROLEUM | -1.00 | GALLONS | 0.00 | GALLONS | GROUNDWATER |

Caller Remarks:

CALLER FOUND UNKNOWN QUANTITY OF FUEL IN MONITORING WELL

DEC Investigator Remarks:

5/15/13–Spill # 1206884 was consolidated with spill # 9502313.

Prior to Sept, 2004 data translation this spill Lead_DEC Field was KOLLEENY

This site was investigated by URS, who proposed installing a GW pump & treat system. Site was then transferred to LiRo, who reviewed the data and agreed with that remedial approach, but modified the design of the remedial system. Kolleeny approved their design, system was installed and is currently operating at site to address dissolved-phase groundwater contamination.

This spill transferred from Kolleeny to A. Zhitomirsky on 4/13/05. – JK

10/21/2005 Pump and treat system is effectively treating site contamination. AZ

2/9/2006 Reviewed Quaterly Monitoring Report dated September 2005. According to the report pump and treat system is effectively

depressing the groundwater table. GW contamination levels have been variable. Based on the most recent data, continued operation of the remedial system is warranted. AZ

4/5/2006 Reviewed system monitoring report dated 3/13/2006. Pump and treat system has been effectively collecting contaminants. LiRo is no longer responsible for this site as of the end of December 2005. AZ

9/20/2006 Reviewed system monitoring report submitted by URS and dated 8/23/2006. Pump and treat system is collecting contaminants. URS recommended continuation of the system operation because of exceedances in contaminant concentrations measured during last monitoring event. AZ

3/14/2007 Reviewed system monitoring report submitted by URS and dated 1/15/2007. 4 wells were not sampled. URS proposed monitoring instead of active remediation. I contacted J. Staten and requested that URS access the wells which were not sampled. After results are received and evaluated, then DEC will consider change of remedial strategy. Also, downgradient wells should be sampled. AZ

8-14-2007 Reviewed request for revised remedial strategy submitted by URS and dated 5/30/2007. In April 2007 gw samples were collected. EW-02 was flooded, EW-03 and MW-08 were under a dumpster, EW-04 appears to have been paved over. The four wells displayed total VOC concentrations ranging from 41 ppb in MW-04 to 119 ppb in MW-07. URS stated that the plume is essentially contained within the property boundary. Existing VOC concentrations are not effectively treated by chemical oxidation injections or oxygen source injections. URS recommended monitored natural attenuation for this site. AZ

8-17-2007 An e-mail was sent to URS: I have reviewed request for revised remedial strategy submitted by URS and dated 5/30/2007. In April 2007 groundwater samples were collected. EW-02 was flooded, EW-03 and MW-08 were under a dumpster, EW-04 appears to have been paved over. URS stated that the plume is essentially contained within the property boundary. Existing VOC concentrations are not effectively treated by chemical oxidation injections or oxygen source injections. URS recommended monitored natural attenuation for this site. DEC concurred with URS's proposals. However, wells which have not been sampled should be sampled and repaired if needed. AZ

12-7-2007 Reviewed report dated October 24, 2007 for the Third Quarter 2007. On July 2, 2007, URS collected groundwater samples from accessible wells. Wells EW-03 and MW-08 are covered by a dumpster and inaccessible. Each well exhibited VOC exceeding Groundwater Quality Criteria. Total VOC concentrations ranged from 15 ppb to 572 ppb in MW-07. URS will continue quarterly groundwater sampling. An alternative remedial technology may be required in contaminant concentrations remain elevated in MW-07. AZ

3-11-2008 Reviewed report dated December 10, 2007 for the the 4th Quarter of 2007. The highest VOC concentrations were detected in MW-07 -224 PPB. URS will continue quarterly monitoring sampling to monitor progress of natural attenuation. AZ

5-1-2008 Reviewed report dated March 14, 2008 for the 1st Quarter of 2008. The highest VOC concentrations were detected in MW-07 -185 ppb. URS proposed to continue quarterly monitoring sampling to monitor progress of natural attenuation. In my e-mail to URS/DDC/VB I recommended due to the decrease in contaminant concentrations reduction of groundwater monitoring and reporting to bi-annual. AZ

8-22-2008 Reviewed report dated June 11, 2008 for the 2nd Quarter of 2008. Total VOC concentrations ranged from 21 ppb in MW-07 to 103 ppb in MW-03. As per DEC's recommendation, URS will collect groundwater samples on a semi-annual basis. AZ

10-1-2009 Reviewed report dated June 1, 2009 for the 2nd Quarter of 2009. Total VOC concentrations ranged from 12 ppb in MW-11 to 325 ppb in MW-07. Dissolved phase contamination is limited to the area around the active tanks and dispenser. URS will collect groundwater samples on a semi-annual basis. AZ

3-2-10 Reviewed report dated December 7, 2009 for the 4th Quarter of 2009. Total VOC concentrations ranged from 80 ppb in MW-03 to 1185 ppb in EW-02. Dissolved phase contamination is limited to the area around the active tanks and dispenser. According to URS, gw analytical data for EW-2 is unusual showing fluctuation every six month from non-detect to over 1000 ppb. The well was in very poor condition until it was repaired on October 16, 2009, may explain the variability of the data. Fuel spillage from the dispensing area would have drained into the well causing periodic spikes in concentrations. URS will continue to collect semi-annual gw samples. AZ

2-18-2011 An e-mail was sent to URS/DDC/V. Brevdo: I have reviewed semi-annual groundwater monitoring report for the above spill number for the second quarter 2010 dated Aug.30, 2010 and submitted to DEC at the meeting on 2-17-2011. Relatively high persistent dissolved phase groundwater contamination remains at the site. An actual tank inventory should be created for this site and compared to the existing PBS records. Four 550-gallon USTs closed in place remain at the site. These tanks might be contributing to the existing contaminant plume. The tanks should be removed if feasible. If natural attenuation at the site is not progressing, more active remedial approach should be undertaken. Monitoring well MW-10 can be removed from the monitoring schedule. AZ

6-21-2011 An e-mail was sent to URS/DDC/V. Brevdo: Dear Kevin, I have reviewed the Semi Annual Monitoring Report through 4th Quarter of 2010 dated April 8, 2011. URS stated that active fuel dispensing system could be a potential source contamination. URS planned to assess this possibility. I concur with the URS suggestion. The results of this assessment should be submitted to DEC. An actual tank inventory based on a filed visit assessment should be created for this site and compared to the existing PBS records. NYSDEC registry should be updated to reflect current USTs and ASTs located at the facility. Also, URS should consider removal of four 550-gallon USTs which were closed in place. AZ

1-4-2011 the following email was sent to K. Shenahan/V. Brevdo/M. Asbagh: Dear Kevin,

I have reviewed a report for the second quarter 2011 for dated October 7, 2011. The report stated that the removal of four 550 gallon gasoline tanks, that were closed in place, is probably not feasible. There is a persistent contamination in monitoring well EW-2 (1189 ppb), which was repaired in 2009. I suggest excavating area around this well, if feasible. AZ

8-27-2012 Reviewed report dated April 10, 2012. The report stated that lingering dissolved phase contamination remains at this site, especially in monitoring well EW-02. This monitoring well is located within the active fuel dispensing area and thus this well might be susceptible to surface infiltration of spilled petroleum compounds. URS inspected the well which was repaired in 2009, and determined that the well appears to be competent. The contamination also may be due to the migration of lingering contamination from the surrounding bedrock. AZ

4-4-2013 Reviewed a monitoring report for the first half of 2012. Removal/excavation of the closed in place tanks is not feasible. URS installed ORC socks in three wells. AZ

11-6-2013 Reviewed a monitoring report for the second half of 2012. In November 2012, 1-inch diameter well was reconstructed into a 4-inch diameter well to allow for the installation of ORC socks. Socks were installed in this well, and replaced in three other

wells, immediately following the well reconstruction. AZ

11–26–2013 Reviewed a report dated May 9, 2013. The report calls for consolidation of spills #9502343 and #1206884. Veronica Zhune previously closed spill #1206884 (consolidated with spill #9502343). Also, the report contained closure report for two 2,000 gallons gasoline tanks. The tanks were closed in October 2012. Post excavation soil samples indicated soil contamination in the south and west excavation sides. A strong petroleum odor was present and a petroleum sheen was seen floating on top of the water surface. Visual and olfactory evidence of petroleum contamination was observed during soil and groundwater sampling. AZ

5–6–2014 Reviewed a semi–annual monitoring report for the first half of 2013. The report stated that the PBS database identifies tanks #001 and 002 (both 2,000 gasoline USTs) as being in service. However, these tanks were removed by Franklin in October 2012. The UST closure report dated December 5, 2012, prepared by Franklin, included PBS notifications for these tanks that were closed and for the installation of one new 2,000 gallon tank designated as#008.

The following e–mail was sent to K. Shenahan and V. Brevdo:

Dear Kevin,

I have reviewed a semi–annual monitoring report for the first half of 2013, dated October 15, 2013. The report stated that PBS database identifies two USTs as being in service while they were removed in 2012.

NYCDDC should submit a correct application to DEC PBS Unit clarifying this discrepancy.

Please include information regarding this issue in your next monitoring report.

Sincerely,

Alexander Zhitomirsky

AZ

10–23–2014 Reviewed a semi–annual monitoring report for the second half of 2013. The report stated that the PBS database identifies tanks #001 and 002 (both 2,000 gasoline USTs) as being in service. However, these tanks were removed by Franklin in October 2012. The UST closure report dated December 5, 2012, prepared by Franklin, included PBS notifications for these tanks that were closed and for the installation of one new 2,000 gallon tank designated as#008. Lingering dissolved phase groundwater contamination remains at this site, primarily around well EW–02. This well was replaced in 2012. AZ

4–27–2015 Reviewed a semi–annual monitoring report for the second quarter of 2014. Lingering dissolved phase groundwater contamination remains at this site, primarily around well EW–02. This well was replaced in 2012. The latest groundwater results show a significant increase in total VOC concentrations. The highest total VOC concentration of any well in the previous quarter was 13 ppb at well EW–02, as compared to 10, 269 ppb detected at that well for this quarter. There is no immediate cause for the sudden increase. AZ

4–27–2015 Reviewed a monitoring report for the third and fourth quarters of 2014. Lingering dissolved phase groundwater contamination remains at this site within the bedrock aquifer. The latest three groundwater results show a significant increase

in total VOC concentrations at four monitoring wells located near the source area.

The highest total VOC concentration of any well in the previous quarter was 7675 ppb at well EW-02. The average groundwater elevation from all monitoring wells for the second quarter 2014 was nearly 7' higher than for the first quarter. It is likely that the unusually high water table submerged a contaminated area of soil/bedrock that typically is unsaturated and allowed additional contamination to dissolve into the groundwater. AZ

4-5-2016 Reviewed a monitoring report for the first and second quarters of 2015. Lingering dissolved phase groundwater contamination remains at this site within the bedrock aquifer. The latest groundwater results show a significant increase in total VOC concentrations at four monitoring wells located near the source area.

The highest total VOC concentration of any well in May 2015 was 6,177 ppb at well EW-02. The average groundwater elevation from all monitoring wells for the second quarter 2014 was nearly 7' higher than for the first quarter. It is likely that the unusually high water table submerged a contaminated area of soil/bedrock that typically is unsaturated and allowed additional contamination to dissolve into the groundwater. Groundwater elevations have since returned to more typical levels. AZ

6-7-2016 Reviewed a monitoring report for the third quarter of 2015. Lingering dissolved phase groundwater contamination remains at this site within the bedrock aquifer. The latest groundwater results show a significant increase in total VOC concentrations at four monitoring wells located near the source area.

The highest total VOC concentration of any well in May 2015 was 6,177 ppb at well EW-02. The average groundwater elevation from all monitoring wells for the second quarter 2014 was nearly 7' higher than for the first quarter. It is likely that the unusually high water table submerged a contaminated area of soil/bedrock that typically is unsaturated and allowed additional contamination to dissolve into the groundwater. Groundwater elevations have since returned to more typical levels. August 2015 sampling event recorded the highest VOC concentration in well EW-02 at 3,529 ppb. AZ

Map Identification Number 6



BASEMENT

166 W 72ND ST

MANHATTAN, NY

Spill Number: 1506947

Close Date:

TT-Id: 520A-0313-198

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (3)

Approximate distance from property: 1693 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Other

Caller Name:

DEC Investigator: RMPIPER

Spiller: UNKNOWN

Notifier Name:

Caller Agency:

Contact for more spill info: DIEGO VECENTI

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: (212) 265-1577

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
|-------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 10/01/2015 | | UNKNOWN | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | |

Caller Remarks:

Caller advised unknown oil is spilling into sub basement through the wall and unknown where the oil is coming from. Clean up is pending.

DEC Investigator Remarks:

10/1/2015 – Feng – Duty Desk. Talked to Deanna Brown of NYCDEP HAZMAT (646-265-6130). DEP received a call complaining about oil spill in the basement and DEP responded to the spill. The spill is in the sub-basement. The first floor of the building is used for commercial purpose. She saw that the ground was wet and a puddle of oil on the floor. She could not tell whether it is leaking right now, but still could not exclude that it is from slow seepage through the wall. There are 2 points of contact on the wall that seem leaking and they are still wet. She inspected the tank which located in the basement in front of the building and it is intact. The problematic wall is located in the back near the courtyard. There is no piping running through the wall. She did not test the oil type. The spill happened 4 weeks ago. The building management did some investigation in the nearby building as they thought there was piping problem associated with the nearby building, but they could not find anything so they called in for a spill. She did not inspect any buildings nearby. There is odor inside the room with the oil spill. The rest of the building had no odor.

Building Management: Diego Vecenti 212-265-1577

open ttf – 1215632

10/20/15– DECPiper called diego to get update. Diego is no longer with Mgmt Co. I spoke with receptionist and explained who, why I was calling. Left message for his replacement.

Scott Price 'scottP@solil.com' 917-589-0408

5/16/16– DEC Piper received email from Curtis Breuer. I am doing a Phase I ESA for an adjacent property (171 W 71st St. *** suspected source property for this spill) to 166 West 72nd Street which has an active spill case numbered 1506947. You are listed as the investigator and we are hoping to find more information on this spill and its potential to be a REC to our target property.

Curtis Breuer Environmental Scientist/Geologist 45-09 Greenpoint Avenue Long Island City, New York 11104 Phone: (718) 784 7490 Fax: (718) 784 4085 www.athenica.com

DEC piper recommended phase 2 in area of drain in alley and along courtyard in rear.



NO ACTIVE HAZARDOUS SPILLS – MISC. SPILL CAUSES – EQUIPMENT FAILURE, HUMAN ERROR, TANK OVERFILL, DELIBERATE SPILL, TRAFFIC ACCIDENT, HOUSEKEEPING, ABANDONED DRUM, VANDALISM AND STORMS – IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS. All spills mapped and profiled within 1/8 mile. Between 1/8 mile and 1/2 mile search radius, spills reported to be greater than 100 units and spills reported in the NYSDEC Fall 1998 MTBE Survey are mapped and profiled. Spills reported to be less than 100 units are listed in a table at the end of this section.

THE FOLLOWING ACTIVE SPILLS FOR THIS CATEGORY WERE REPORTED BETWEEN 1/8 MILE AND 1/2 MILE SEARCH RADIUS FROM THE SUBJECT ADDRESS. THESE SPILLS WERE REPORTED TO BE LESS THAN 100 UNITS IN QUANTITY AND CAUSED BY: EQUIPMENT FAILURE, HUMAN ERROR, TANK OVERFILL, DELIBERATE SPILL, TRAFFIC ACCIDENT, HOUSEKEEPING, ABANDONED DRUM, VANDALISM, OR STORMS. THESE SPILLS ARE NEITHER MAPPED NOR PROFILED IN THIS REPORT.

| FACILITY ID | FACILITY NAME | STREET | CITY |
|-------------|---------------------------|---------------------------------------|-----------|
| 0911994 | PRIVATE DWELLING BASEMENT | 52 WEST 88TH ST | MANHATTAN |
| 1406513 | APARTMENT BUILDING | 117 WEST 70TH STREET | MANHATTAN |
| 1508926 | APT BUILDING | 375 WEST END AVE | NEW YORK |
| 1410287 | MANHOLE MH61729 | WEST END AVE BETWEEN 85TH AND 86TH ST | MANHATTAN |



CLOSED STATUS TANK FAILURES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identification Number 7 **53 W 76TH ST CONDOMINIUM** **Spill Number: 0106772** **Close Date: 10/13/2005**
 53 W 76TH ST MANHATTAN, NY TT-Id: 520A-0095-757

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 252 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|---|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: MR CONE | Spiller Phone: (877) 641-5900 |
| Notifier Type: Other | Notifier Name: | Notifier Phone: |
| Caller Name: MIKE SHAW | Caller Agency: METRO FUEL | Caller Phone: (718) 383-1400 |
| DEC Investigator: JMPELTON | Contact for more spill info: MICHAEL TYLER REALTY | Contact Person Phone: (877) 641-5900 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 09/28/2001 | | TANK FAILURE | YES | NO |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #2 FUEL OIL | PETROLEUM | 5.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

TWIN 275 GALLON TANKS – ONE TANK WAS PUROUS – PETROLEUM TANK CLEANERS RESPONDED & PUMPED TANK OUT – DRYZOL PUT DOWN & WILL BE PICKED UP ON MONDAY AFTER IT HAS A CHANCE TO ABSORB

DEC Investigator Remarks:

OCTOBER 13, 2005 As part of the Spills Reduction Initiative, this spill (sp0106772)was assigned to Jason Pelton. On October 12,

2005 Jason Pelton spoke with Roger Romance at Metro Fuel Oil Corp. Metro Fuel was the agency that reported the spill on September 28, 2001. According to the discussion with Roger, the Metro Fuel dispatcher (Mike Shaw) reported the petroleum spill due to petroleum odors that were noticed. Roger indicated that Metro Fuel subsequently performed a service call on September 28, 2001 and identified a small hole in the bottom of the above ground storage tank in the basement. The quantity of petroleum reported was five gallons.

During the phone conversation with Roger Romance, Jason Pelton asked to have documentation on the service call sent to the NYSDEC Albany office. Roger subsequently sent a letter, via fax, documenting the service call and cleanup activities for the estimated 5-gallon petroleum spill. The letter was received on October 12, 2005.

Based on the small quantity of petroleum released (5-gallons), the documented cleanup activities by Metro Fuel Oil Corp, and the repairs made to the above ground storage tanks by Metro Fuel, the petroleum spill was closed by Jason Pelton on August 13, 2005.

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIPPLE 10/3/03 TIPPLE SENT LETTER REQUESTING DOCUMENTATION 11/18/03 DOCUMENTATION TO BE SENT

9/9/2005 – Tipple transferred outside of DEC Remediation – found a report and forwarded it up to Mike Komoroske in Albany.

Map Identification Number 8 **123 W. 79TH STREET** **Spill Number: 9213467** **Close Date: 11/07/1997**
 123 W. 79TH STREET MANHATTAN, NY TT-Id: 520A-0091-955

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 315 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|------------------------------|------------------------------|-----------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Other | Notifier Name: | Notifier Phone: |
| Caller Name: | Caller Agency: | Caller Phone: |
| DEC Investigator: UNASSIGNED | Contact for more spill info: | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 03/05/1992 | | TANK FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|---|----------------|------------------|---------|--------------------|---------|----------------------|
| The following material(s) was dropped or revised by the NYS DEC. Call Toxics Targeting for more information | | | | | | |
| UNKNOWN MATERIAL | UNKNOWN | 0 | GALLONS | 0 | GALLONS | |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was XX

CLOSED DUE TO INSUFICIENT INFORMATION.

Map Identification Number 9



RESIDENCE

29 WEST 75TH STREET

NEW YORK CITY, NY

Spill Number: 0600431

Close Date: 10/24/2006

TT-Id: 520A-0090-479

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 598 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Other
 Caller Name:
 DEC Investigator: JMKRIMGO

Spiller: VINNY LOVARI – RESIDENCE
 Notifier Name:
 Caller Agency:
 Contact for more spill info: VINNY LOVARI

Spiller Phone: (718) 509-5900
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (718) 509-5900

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 04/11/2006 | | TANK FAILURE | YES | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

they figure at least but no more than 3 drums of contaminated soil. Clean up will begin tonight. This tank that has a hole in it, has not been used in a long time because the home owner has moved to natural gas. The tank has been pumped out and cleaned up, tank was cut and found the hole in the bottom

DEC Investigator Remarks:

Sangesland will send a CSL

10/12/2006 Island Environmental Tank submitted a report to the DEC dated Aug 29, 2006

10/24/06. J Krimgold reviewed the tank closure report submitted by Island Enviro. Tank, Inc. According to the report sludge was found at the tank bottom. The tank was cleaned, cut and removed. About 4.5 cu. ft of contaminated soil was also removed and disposed of. Six soil samples were taken around the tank. Samples do not exhibit excess of contaminants in the soil. NFA letter.

Map Identification Number 10 **102 WEST 75TH ST**
 102 WEST 75TH ST

MANHATTAN, NY

Spill Number: 9700871

Close Date: 10/18/2005
 TT-Id: 520A-0095-753

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 699 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Responsible Party
 Caller Name: DAVID RAMOS
 DEC Investigator: jdjarrat

Spiller: DAVID RAMOS – LEEBAR MANAGEMENT
 Notifier Name:
 Caller Agency: LEEBAR MANAGEMENT
 Contact for more spill info: MR AYALA

Spiller Phone: (212) 895-7271
 Notifier Phone:
 Caller Phone: (212) 895-7271
 Contact Person Phone: (212) 787-8942

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 04/20/1997 | | TANK FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

LEAKED FROM TANK – CONTAINED IN VAULT

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was AUSTIN 3/23/04 – AUSTIN – ORIG. ASSIGNED TO ENGELHARDT – END 7/15/05 transferred to Jarratt (co) Closed 10/18/05 by Jarratt

Map Identification Number 11 **100 WEST 75TH STREET**
 100 WEST 75TH STREET

MANHATTAN, NY

Spill Number: 9700866

Close Date: 02/19/2003
 TT-Id: 520A-0095-752

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 699 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Other
 Caller Name: JIM CAREY
 DEC Investigator: CAENGELH

Spiller: ASSOCIATED REALTY
 Notifier Name: MR AYALA
 Caller Agency: CASTLE OIL CORPORATION
 Contact for more spill info: MR AYALA

Spiller Phone:
 Notifier Phone: (212) 787-8942
 Caller Phone: (718) 579-3414
 Contact Person Phone: (212) 787-8942

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 04/20/1997 | | TANK FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #4 FUEL OIL | PETROLEUM | 50.00 | GALLONS | 50.00 | GALLONS | SOIL |

Caller Remarks:

UNSURE IF LEAK IS FROM TANK ITSELF OR SOME PIECE OF PIPING/EQUIPMENT. INTO VAULTED TANK ROOM. CALLER HAS HIS PERSONNEL ON SCENE. TANK TO BE EVACUATED. ABC TANK CLEANING COMPANY CONTACTED FOR CLEAN UP.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was ENGELHARDT 2/19/2003 - Closed Due To The Nature / Extent Of The Spill Report

Map Identification Number 12 **APARTMENT**
 150 WEST 82ND STREET

MANHATTAN, NY 10024

Spill Number: 0409941

Close Date: 03/27/2007
 TT-Id: 520A-0098-747

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 702 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|--|---|
| Source of Spill: PRIVATE DWELLING | Spiller: MARK SALAMACK – APARTMENT | Spiller Phone: (917) 559–5519 ext. C |
| Notifier Type: Other | Notifier Name: MARK SALAMACK | Notifier Phone: (718) 624–4842 |
| Caller Name: MARK SALAMACK | Caller Agency: PETROLIUM TANK CLEANERS | Caller Phone: (718) 624–4842 |
| DEC Investigator: HRPATEL | Contact for more spill info: MARK SALAMACK | Contact Person Phone: (917) 559–5519 ext. C |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/07/2004 | | TANK FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #6 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

TANK L;ET GO AND IS SPILLING OIL; ON FLOOR AND HAS GONE INTO A SUMP PIT AND IS SHOOTING IT IN THE SEWER SYSTEM:

DEC Investigator Remarks:

12/19/05 Feroze. Spill is transferred from Ketani to Feroze.

01/23/06. Feroze,PBS of this spill is 2–084271. TTF is sent to:

Gerald Rivera Mann Realty Associates 1776 Broadway, 23RD Floor NY 10019

02/27/06. Feroze called to 212–977–0000. Ms. Jamie is the property manager of the building. A message is left for him.

03/15/06. Spill is transferred from Feroze to Kumer Patel.

04/06/06–Hiralkumar Patel. Spoke with Ms. Jamie (212–977–0000 Ext. 236, FAX: 212–977–0087) at Mann Realty Assocs. Ms. Jamie will contact Petroleum as they worked on site and will call back or send required documents.

Mann Realty Assocs 1776 Broadway New York, NY 10019–2002

05/04/06–Hiralkumar Patel. Left message for Ms. Jamie. 05/16/06–Hiralkumar Patel. Spoke to Ms. Jamie. she will call Petroleum and will call back. 05/22/06–Hiralkumar Patel. Spoke at petroleum. they dug out concrete floor in basement and removed it. they installed temp tank. no further work done. Left message for Ms. Jemi. 05/25/06–Hiralkumar Patel. Left message for Ms. Jamie. 05/31/06–Hiralkumar Patel. REceived call from Ms. Jamie. as per her, petroleum has removed their temp tank. Jamie will send documents which she has and will call petroleum about final report. told Ms. Jamie that the department needs end point sample

results also.

06/02/06–Hiralkumar Patel. received documents from Jamie Perna. this contains documents about new tank installation. as per notes in letter from NYC Dept. of Building, they have replaced 4000 gal AST with 3200 gal AST.

06/06/06–Hiralkumar Patel. Left message for Jamie. 06/09/06–Hiralkumar Patel. Left message for Jamie. 06/30/06–Hiralkumar Patel. Visited site. spoke with David Cresp (347–273–0058), super of building. building had old tank enclosed in concrete vault. David observed oil coming out from weep holes and notified his management company. owner changed tank and installed new 3200 gal AST on legs. tank has concrete wall around it with weep holes at bottom. during tank replacement, owner build new concrete pad to put tank on and painted tank box from inside and tank from outside. as per David, tank removal company took some soil samples after they removed old tank. currently, floor around tank box is in bad condition having broken concrete. and weep holes at bottom of tank box opens in this floor and because of this, tank box would not be considered as secondary containment.

spoke to Joe at Petroleum. he will call back with more information. Received call from Diana from Petroleum. as per her, petroleum replaced old tank but never took any soil samples.

Left message for Jamie to call back by Friday July 7, 2006.

PBS #: 2–084271. PBS record shows only one tank of 4000 gal capacity. no information about any tank removal or installation of new tank at site. need to update PBS records also.

sent out CSL to Jamie Perna at following address requiring to submit PBS registration, soil/groundwater delineation & installation of secondary containment. letter faxed to Ms. Perna.

Jamie Perna Mann Realty Associates 1776 Broadway, 23rd Floor New York, NY 10019 Ph. (212) 977–0000 Ext. 236 FAX (212) 977–0086

08/10/06–Hiralkumar Patel. spoke with Ms. Perna. she request copy of letter. send fax to Ms. Perna. property manager is Deborah Perna (212–977–0000 Ext. 238). 08/23/06–Hiralkumar Patel. left message for Jamie Perna. 08/31/06–Hiralkumar Patel. left message for Deborah Perna. received call from Jamie. she doesn't know about any soil investigation done after previous tank removal. she has PBS application ready and will send to PBS section. they are dealing with Petroleum about soil investigation around previous tank location. she will asked Petroleum to submit work plan by Sep. 15, 2006.

09/12/06–Hiralkumar Patel. received letter from Jamie Perna, Assistant property manager. she sent copy of PBS application, work invoice copy from petroleum. as per Jamie, property manager is out of office and once she comes back to office, Jamie will take her signature on proposal for soil/groundwater investigation and will send it to the Department. received work invoice copies for work done by Petroleum. summary: – first invoice (11/02/2004):– perform tank test and tank failed – Second invoice (12/13/2004):– pump out sump pit

– pump and clean 1–4000 gal tank

– disposed 500 gal of water – third invoice (12/27/2004) :– cut out and removed 1–4000 gal tank – fourth invoice (02/23/2005):– fabricate and install new 3,300 gal tank – fifth invoice (08/09/2005) :– disposed 40–55 gal drums – sixth invoice (09/08/2005) :– disposed off 100 gal of water

11/14/06–Hiralkumar Patel. left message for Ms. Perna. 11/29/06–Hiralkumar Patel. left message for Ms. Perna.
11/30/06–Hiralkumar Patel. left message for Elizabeth, assistant of Deborah Perna. Jamie Perna is no longer working at this management.

12/01/06–Hiralkumar Patel. Spoke with Ms. Perna. they haven't started any work yet and Ms. Perna doesn't have letter that the Department has sent on 06/30/06. she will check Jamie Perna's files for this letter. explained Ms. Perna that the department requires soil/groundwater delineation, tank registration and installation/correction of secondary containment. she will hire contractor and will send work plan for soil/groundwater delineation.

12/11/06–Hiralkumar Patel. received message from Ms. Perna (Cell: 347–723–8402). she asked copy of letter that was sent previously. spoke with Ms. Perna. sent out copy of letter in email to Ms. Perna (deborah@mannrealty.com)

12/18/06–Hiralkumar Patel. left message for Ms. Perna. 12/19/06–Hiralkumar Patel. spoke with Ms. Perna. she will call her contractor and will call back. 12/20/06–Hiralkumar Patel. left message for Ms. Perna. 12/22/06–Hiralkumar Patel. received email from Ms. Perna. she signed contract with PTC for soil/groundwater delineation. she will send further documents once she gets from PTC.

01/02/07–Hiralkumar Patel. received message from Ms. Perna on 12/29/06. PTC will start soil investigation this week.

01/11/07–Hiralkumar Patel. spoke with Mark. as per him, he was at scene when spill happened in 2004 and PTC installed new tank at that time. Mark saw area where oil spilled. as per Mark, owner did hire another company for spill cleanup in 2004, but no soil investigation was done at that time. Mark got proposal back and waiting for initial payment to start soil/groundwater delineation work. he will also ask owner to build barrier next to weep holes in tank vault.

03/27/07–Hiralkumar Patel. received report from Mark. abstract:

...PTC drilled under the tank in the center and at each end of the tank, at an angle to obtain soil from under the location of the tank from a depth of approx. 2 ft below the level of the bottom of the new tank (same location of the old tank)

...another sample was taken from an area adjacent to the tank from about two inches below the level of the concrete floor, where oil was observed at time of the leak.

...at the time PTC went to install the concrete pad and new tank that the area had already been broken, excavated, and that there were no VISIBLE SIGNS OF CONTAMINATION, NOR WAS THERE ANY LINGERING ODOR OF OIL IN THE SOIL.

no contamination found in any sample. based on available report, case closed. NFA sent to Ms. Perna. letter faxed to Ms. Perna and Mark at PTC.

Map Identification Number 13 **139 WEST 82ND ST/MANH**
 139 WEST 82ND STREET

NEW YORK CITY, NY

Spill Number: 9011428

Close Date: 09/21/1991
 TT-Id: 520A-0098-758

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 772 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Citizen
 Caller Name: ANONYMOUS
 DEC Investigator: SULLIVAN

Spiller: UNKNOWN
 Notifier Name:
 Caller Agency:
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/30/1990 | 09/21/1991 | TANK FAILURE | UNKNOWN | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Spilled | Units | Recovered | Units | |
| #4 FUEL OIL | PETROLEUM | -1.00 | UNKNOWN | 0.00 | UNKNOWN | SEWER |

Caller Remarks:

OIL SEEPING THROUGH WALL FROM TANK ROOM & INTO SUMP PIT, BEING PUMPED INTO SEWER.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 14 **APARTMENT BUIDLING**
 15 WEST 84TH STREET

NEW YORK, NY

Spill Number: 0411524

Close Date: 03/29/2005
 TT-Id: 520A-0091-580

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1003 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Responsible Party
 Caller Name: DOROTHY SERDEINS
 DEC Investigator: CESAUYER

Spiller: DOROTHY- MANAGER - APARTMENT BUIDLING
 Notifier Name: DOROTHY SERDEINS
 Caller Agency: SELF MANAGED CO-OP
 Contact for more spill info: DOROTHY- MANAGER

Spiller Phone: (212) 721-9699
 Notifier Phone: (212) 721-9699
 Caller Phone: (212) 721-9699
 Contact Person Phone: (212) 721-9699

| | | | | | | | |
|------------------|---|----------------|-------------------------|---------|---------------------|---------|----------------------|
| Category: | Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters. | | | | | | |
| Class: | Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency | | | | | | |
| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
| 01/26/2005 | | TANK FAILURE | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

HAS A LEAK AT THIS APRTMENT BUILDING; OIL CO WILL BE IN TO SWITCH TANKS AND REPAIR: RND SERVICES INC. WILL RESPOND

DEC Investigator Remarks:

Sangesland spoke to Dorothy who is one of the resident owners of this co-op building and she will be the owner contact for this project. Dorothy says that the tank sprung a small leak and she called in because there was a small puddle under the tank. Bob Hayman and Nick Eagle from RND Services (845-348-6355) were called to the building. They said the leak was not that big and will return tomorrow with a temporary tank set up. Once that is on line, the existing 7,500 gal tank will be cleaned out, repaired and retested.

1/28/05 –Modified TTF ltr sent

03/29/05 – Sawyer – The owners contracted with Empire Environmental to have the 7,500 gallon underground tank removed. Empire was required to also excavate the tank grave and to send the clean end point samples to the Department. No further action necessary.

Map Identification Number 15 **201 WEST 77TH STREET**
 201 WEST 77TH STREET

MANHATTAN, NY

Spill Number: 9206055

Close Date: 02/05/1998
 TT-Id: 520A-0098-725

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1065 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|------------------------------|------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: | Spiller Phone: |
| Notifier Type: Other | Notifier Name: | Notifier Phone: |
| Caller Name: MARK SALAMACK | Caller Agency: ABC TANK | Caller Phone: (718) 272-2800 |
| DEC Investigator: KSTANG | Contact for more spill info: | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/25/1992 | | TANK FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #6 FUEL OIL | PETROLEUM | 1000 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

TANK RUPTURE, INTO BOILER AND TANK ROOM, NO BID YET TO CLEAN UP

EMERGENCY CONTACT MR. PETERSEL (212)877-9349. TANK ALOT SERVICED THE TANK ALOT SERVICED THE TANK ON 6/23/92 BY ERIC

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TANG ABOVEGROUND SPILL. TOLD OWNER TO CLEAN UP.

Map Identification Number 16 **APT COMPLEX**
 10 WEST 74TH ST

MANHATTAN, NY **Spill Number: 0211222** **Close Date: 02/10/2003**
 TT-Id: 520A-0091-402

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1066 feet to the S

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|-------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: APT COMPLEX | Spiller Phone: |
| Notifier Type: Other | Notifier Name: RAY LARA | Notifier Phone: (718) 624-4842 |
| Caller Name: RAY LARA | Caller Agency: PETROLEUM TANK | Caller Phone: (718) 624-4842 |
| DEC Investigator: JBVOUGHT | Contact for more spill info: CALLER | Contact Person Phone: (646) 772-6884 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 02/08/2003 | | TANK FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 10.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

tank failed and spilled oil. clean up crew being organized.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was VOUGHT Rommel 02/10/2003 Closed and referenced to 0211227.

Map Identification Number 17 **24 WEST 85TH ST/MANH**
 24 WEST 85TH STREET

NEW YORK CITY, NY

Spill Number: 9000527

Close Date: 04/16/1990
 TT-Id: 520A-0091-748

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1116 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Responsible Party
 Caller Name: ANGELO BAERENCLAU
 DEC Investigator: TOMASELLO

Spiller: UNKNOWN
 Notifier Name:
 Caller Agency: BAERENCLAU
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone: (718) 647-4200
 Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 04/16/1990 | 04/16/1990 | TANK FAILURE | UNKNOWN | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 1.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

TANK LEAKED INTO BASEMENT, OWNER CLEANED IT UP.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 18 **EXXONMOBIL** **Spill Number: 9905193** **Close Date: 07/14/2003**
 332 AMSTERDAM AVENUE , NY TT-Id: 520A-0098-739

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1138 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: GASOLINE STATION OR PBS FACILITY Spiller: EXXONMOBIL Spiller Phone:
 Notifier Type: Affected Persons Notifier Name: EMILY Notifier Phone: (212) 496-2100
 Caller Name: KEITH ROBBINS Caller Agency: ANSONIA VETERNARIAN CENTE Caller Phone: (212) 496-2100
 DEC Investigator: SIGONA Contact for more spill info: Contact Person Phone:

Category: Known release which created a fire/explosion hazards (inside or outdoors), drinking water supply contamination, or significant releases to surface waters.

Class: Unknown RP – DEC Field Response – DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 07/30/1999 | | TANK FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|---|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE | PETROLEUM | 0 | GALLONS | 0 | GALLONS | AIR |
| The following material(s) was dropped or revised by the NYS DEC. Call Toxics Targeting for more information | | | | | | |
| UNKNOWN MATERIAL | UNKNOWN | 0 | GALLONS | 0 | GALLONS | |

Caller Remarks:

CALLER STATES THAT CONSTRUCTION IS BEING DONE IN THEIR BUILDING AND THEY ARE SMELLING SOME TYPE OF UNKNOWN ODOR CALLER WAS TOLD BY CONST WORKER TAKING AIR SAMPLES THAT IF THEY SMELT ANYTHING TO CALL NYS SPILL LINE

NO CLEAN UP IS INTHE PROCESS GIVE COMPANY A CALL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 19 **EXXONMOBIL**
 332 AMSTERDAM AVENUE

, NY

Spill Number: 9904998

Close Date: 07/14/2003
 TT-Id: 520A-0098-738

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1138 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: GASOLINE STATION OR PBS FACILITY
 Notifier Type: Affected Persons
 Caller Name: DR PHILLIP FREIDMAN
 DEC Investigator: SIGONA

Spiller: EXXONMOBIL OIL CORP
 Notifier Name:
 Caller Agency: CITIZEN
 Contact for more spill info: CALLER

Spiller Phone:
 Notifier Phone:
 Caller Phone: (212) 496-2100
 Contact Person Phone:

Category: Known release which created a fire/explosion hazards (inside or outdoors), drinking water supply contamination, or significant releases to surface waters.
 Class: Unknown RP – DEC Field Response – DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 07/23/1999 | | TANK FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE | PETROLEUM | 0 | GALLONS | 0 | GALLONS | GROUNDWATER |

Caller Remarks:

Caller reports excavation of site next to his clinic and fumes and vapors are coming into his building making people sick. DEC's Kerri O'Dowd was out there yesterday and told them to call this in if it happened again –

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 20 **EXXONMOBIL**
 332 AMSTERDAM AVENUE

, NY

Spill Number: 9904995

Close Date: 05/11/2004
 TT-Id: 520A-0098-737

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1138 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|---|-------------------------------------|------------------------------|
| Source of Spill: GASOLINE STATION OR PBS FACILITY | Spiller: EXXONMOBIL OIL CORP | Spiller Phone: |
| Notifier Type: Affected Persons | Notifier Name: | Notifier Phone: |
| Caller Name: NICOLLE LEIFER | Caller Agency: AKRF | Caller Phone: (212) 340-9784 |
| DEC Investigator: DKHARRIN | Contact for more spill info: CALLER | Contact Person Phone: |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.
 Class: Unknown RP – DEC Field Response – DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 07/22/1999 | | TANK FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|---|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| GASOLINE | PETROLEUM | 0 | GALLONS | 0 | GALLONS | GROUNDWATER |
| The following material(s) was dropped or revised by the NYS DEC. Call Toxics Targeting for more information | | 0 | GALLONS | 0 | GALLONS | |
| OTHER PETROLEUM | UNKNOWN | 0 | GALLONS | 0 | GALLONS | |

Caller Remarks:

Spill reported in 1995. Caller found more contaminated soil while investigating the site.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was HARRINGTON DEC (Sigona) Re-assigned to (O'Dowd) on 7/30/99. DEC (Sigona) with consultation from DEC (O'Dowd) requested that the investigation reports by AKRF (Rudko) be sent to (O'Dowd). This site was former PBS gas station at 332 Amsterdam Avenue with multiple spill reports. AKRF is supervising the construction of building with a 35' deep excavation. AKRF will monitor removal of any contaminated soil from site.

This spill was reassigned back to Sigona on March 1, 2000.

This site spill cleanup has been consolidated under Spill No. 9904995.

01/30/04 Reassigned from Rommel to Harrington.

Map Identification Number 21 **EXXONMOBIL**
 332 AMSTERDAM AVENUE

, NY

Spill Number: 9904938

Close Date: 07/14/2003
 TT-Id: 520A-0098-736

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1138 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: GASOLINE STATION OR PBS FACILITY
 Notifier Type: Local Agency
 Caller Name: GRAHAM MANIGAT
 DEC Investigator: SIGONA

Spiller: EXXONMOBIL
 Notifier Name: VA HOSP
 Caller Agency: DEP
 Contact for more spill info: DR ROSENTHAL

Spiller Phone:
 Notifier Phone: (212) 496-2100
 Caller Phone: (718) 595-6777
 Contact Person Phone: (212) 496-2100

Category: Known release which created a fire/explosion hazards (inside or outdoors), drinking water supply contamination, or significant releases to surface waters.
 Class: Unknown RP – DEC Field Response – DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 07/26/1999 | | TANK FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE | PETROLEUM | 0 | GALLONS | 0 | GALLONS | AIR |
| UNKNOWN PETROLEUM | UNKNOWN | 0 | GALLONS | 0 | GALLONS | |

Caller Remarks:

STRONG PETROLEUM FUMES HAVE ENTERED HOSPITAL CAUSING SEVERAL DOCTORS TO BECOME ILL-POSSIBLY FROM ON GOING CONSTRUCTION WORK AT SAME LOCATION.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 22 **135 CENTRAL PARK W**
 135 CENTRAL PK W

NYC, NY

Spill Number: 9106670

Close Date: 02/10/2003
 TT-Id: 520A-0095-751

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)
 Approximate distance from property: 1175 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: 135 CENTRAL PARK WEST
 Revised zip code: 10023

Source of Spill: PRIVATE DWELLING Spiller: Spiller Phone:
 Notifier Type: Other Notifier Name: Notifier Phone:
 Caller Name: MARK SALMANAC Caller Agency: ABC TANK Caller Phone: (718) 272-2800
 DEC Investigator: TOMASELLO Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Unknown RP – DEC Field Response – DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 09/20/1991 | | TANK FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #6 FUEL OIL | PETROLEUM | 1000 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

OIL LEAKED OUT FROM BOTTOM OF TANK, CONTAINED IN BASEMENT, SOME OIL IN SUMP. ABC TANK SENT CREW TO SHUT SUMP PUMP AND TO CLEAN UP.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 23 **OPERA APARTMENTS** **Spill Number: 9009666** **Close Date: 08/20/2007**
 2166 BROADWAY NEW YORK CITY, NY TT-Id: 520A-0098-722

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1289 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: Spiller Phone:
 Notifier Type: Citizen Notifier Name: Notifier Phone:
 Caller Name: MARK SALAMACK Caller Agency: ABC TANK Caller Phone: (718) 272-2800
 DEC Investigator: rvetani Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 12/04/1990 | | TANK FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | PETROLEUM | 200.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

LEAK IN TANK, POWER WASHED AREA & USED SPEEDY DRY, # OF APTS INVOLVED,OIL IN BASEMENT, SHOVELED CONTAMINATED MATERIAL INTO DRUMS, NO DRAINS OR SUMPS AFFECTED.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was M TIBBE see 9708318 & 0008420.

8/20/07 – Raphael Ketani. This spill case involves the same site as the two that are listed above. Spill case #0008420 was closed by Mark Tibbe, but spill case #9708318 is still on going and active. Therefore, I am closing spill case #9009666 and referring it to the active case.

Map Identification Number 24 **27 WEST 72ND ST/MANH**
 27 WEST 72ND STREET

NEW YORK CITY, NY

Spill Number: 9003522

Close Date: 01/19/2005
 TT-Id: 520A-0091-756

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1299 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Other
 Caller Name: VINNIE LAVARY
 DEC Investigator: JCGRATHW

Spiller: OLCOTT HOTEL
 Notifier Name:
 Caller Agency: ISLAND TANK
 Contact for more spill info:

Spiller Phone: (212) 877-4200
 Notifier Phone:
 Caller Phone: (718) 967-9424
 Contact Person Phone:

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 06/26/1990 | | TANK FAILURE | YES | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | -1.00 | POUNDS | 0.00 | POUNDS | GROUNDWATER |

Caller Remarks:

WHILE CLEANING 10K TANK, HOLE WAS FOUND, OIL WAS DISCOVERED IN SUMP, SPILLER CLAIMS PLUME MAY BE LOCATED UNDERNEATH BLDG, TANK NEEDS TO BE REPAIRED.

DEC Investigator Remarks:

1/19/06 – Site visit. Met with Chief Engineer Robert Cicciari. We went to the basement of the building. This facility changed to gas heat approx. 2 years ago. Inspection of the boiler room and tank area found these areas are clean. No oil odor in areas, on floor or in sump. Took photos. Spill closed.

6/15/05 – Spill Lead_DEC Field changed to Grathwol. No spill file.

Prior to Sept, 2004 data translation this spill Lead_DEC Field was M TIBBE

Map Identification Number 25

2130 BROADWAY/MANH
2130 BROADWAY

NEW YORK CITY, NY

Spill Number: 9009255

Close Date: 11/29/1990
TT-Id: 520A-0098-721

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 1343 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
Notifier Type: Other
Caller Name: BOB DECK
DEC Investigator: KSTANG

Spiller: BEACON HOTEL
Notifier Name:
Caller Agency: PETROLEUM TANK CLEANERS
Contact for more spill info:

Spiller Phone: (212) 362-0025
Notifier Phone:
Caller Phone: (718) 624-4842
Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 11/26/1990 | 11/29/1990 | TANK FAILURE | UNKNOWN | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 300.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

SPILLED OIL DISCOVERED IN VAULT, TRANSFERRED TO ANOTHER TANK,VAC TRUCKON SCENE, WILL CLEAN UP FREE PRODUCT & WILL APPLY SPEEDY DRY,PICK UP &DISPOSE.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TANG 11/29/90: DEC INVESTIGATED, OIL LEAKED OUT FROM BOTTOM OF THE VAULT, (2) 5K TANKS IN SEPARATE TANK ROOMS, SPILLED CLEANED UP.

Map Identification Number 26 **BANCROFT OWNERS INC** **Spill Number: 0406187** **Close Date: 09/08/2004**
 40 W 72ND STREET MANHATTAN, NY TT-Id: 520A-0095-273

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1507 feet to the SSW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|---------------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: GEORGE – BANCROFT OWNERS INC | Spiller Phone: (212) 362-6100 |
| Notifier Type: Responsible Party | Notifier Name: GEORGE | Notifier Phone: (212) 362-6100 |
| Caller Name: STEPHEN KING | Caller Agency: HESS CORPORATION | Caller Phone: (908) 881-5389 |
| DEC Investigator: TJDEMEO | Contact for more spill info: GEORGE | Contact Person Phone: (212) 362-6100 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 09/06/2004 | | TANK FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 2000 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

Caller reports a leak from an 7500 gallon fuel oil tank in a tank room. It is contained. Caller is unsure if spill has stopped. Clean up will be done by Petroleum Tank Cleaners. Caller has estimated the spill amount.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was DEMEO Demeo reponded to the site and found water with a sheen of oil. Spill has been cleaned

Map Identification Number 27 **2109 BROADWAY** **Spill Number: 9802677** **Close Date: 11/25/2005**
 2109 BROADWAY MANHATTAN, NY TT-Id: 520A-0095-754

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1700 feet to the WSW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: MARC LIPPMAN – 2109 BROADWAY Spiller Phone: (212) 799-6671
 Notifier Type: Local Agency Notifier Name:
 Caller Name: ANTHONY HENRY Caller Agency: NYC DEP Notifier Phone:
 DEC Investigator: RXMUSTIC Contact for more spill info: MARC LIPPMAN Caller Phone: (718) 595-4766
 Contact Person Phone: (212) 799-6671

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | PBS # Involved | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|----------------|-------------------------|---------------------|
| 05/26/1998 | | TANK FAILURE | 2-266329 | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

building under construction, old tank removed and contaminated soil encountered.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was M TIBBE Engelhardt responded:

Met with Joe Martino, foreman of building renovation being performed by RC Dolner Inc. (general contractor). Dolner is doing job for Great Atlantic & Pacific Tea Company [90 Delaware Ave, Paterson, NJ, 07503 – tel # (201) 505-3318] who is renting the building. The building manager is Marc Lippman [2101-2119 Broadway, NYC, NY – tel # (212) 799-6671]. Unknown owner.

Mr. Martino reported that they were doing excavation to install elevator shaft about 25 feet below grate when they uncovered an abandoned oil tank thought to have held no. 6 oil. They cut and removed tank and hired Unesco [tel # (201) 939-4000] to remove contaminated soil. Unesco foreman is Manuel Reinoso. Unesco is removing contaminated soil and placing in 1 yard containers and 55 gallon drums. Mr. Reinoso reported that either at the end of this week or next week the dispatcher for Unesco Anthony Moza will arrange to have a roll off delivered for transfer of the contaminated soil and disposal.

Observed excavation. Soil appeared to be contaminated with weathered fuel oil. Was very rich in color. Water was infiltrating the low points of the excavation. Drew sample in aerosol can cap and observed some oil droplets on water surface. Transferred from Engelhardt to Tibbe on 6/2/98.

Map Identification Number 28 **2109 BROADWAY** **Spill Number: 9209388** **Close Date: 11/12/1992**
 2109 BROADWAY MANHATTAN, NY TT-Id: 520A-0095-756

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1700 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|-----------------------------------|------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: | Spiller Phone: |
| Notifier Type: Responsible Party | Notifier Name: | Notifier Phone: |
| Caller Name: HARVEY SCHUSSLER | Caller Agency: ANSONIN ASSOCIATES | Caller Phone: (212) 799-6671 |
| DEC Investigator: KSTANG | Contact for more spill info: | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended | | |
|------------------|---------------------|------------------|-------------------------|---------------------|---------|----------------------|
| 11/12/1992 | 11/12/1992 | TANK FAILURE | UNKNOWN | NO | | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | PETROLEUM | 50.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

COMPRESSION FITTING FAILED-OIL LEAKED TO SUB-BASEMENT-CONCR FLOOR CONTAINED-WILL CONTACT CONTRACTOR

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TANG

Map Identification Number 29 **CONDO 245 W.75TH ST** **Spill Number: 9108119** **Close Date: 12/25/1998**
 245 W.75TH ST NEW YORK, NY TT-Id: 520A-0098-723

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1705 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
 Notifier Type: Local Agency
 Caller Name: W HERNANDEZ
 DEC Investigator: TOMASELLO

Spiller: CONDOMINIUM COMPLEX
 Notifier Name:
 Caller Agency: NYCDEP
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone: (718) 595-4652
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/30/1991 | | TANK FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|--------|--------------------|--------|----------------------|
| | | Units | | Units | | |
| #2 FUEL OIL | PETROLEUM | -1.00 | POUNDS | 1900.00 | POUNDS | SOIL |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 30 **SPILL NUMBER 9913986**
 37 WEST 87TH ST

MANHATTAN, NY

Spill Number: 9913986

Close Date: 08/08/2003
 TT-Id: 520A-0098-787

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1775 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Responsible Party
 Caller Name: MATTHEW GREVSTAD
 DEC Investigator: SMSANGES

Spiller: PETRO OIL
 Notifier Name: MIKE ESPENBERG
 Caller Agency: PETRO OIL
 Contact for more spill info: PETRO OIL

Spiller Phone:
 Notifier Phone:
 Caller Phone: (516) 686-2013
 Contact Person Phone: (516) 686-2013

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/10/2000 | | TANK FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 5.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

tank overflow at above location. material contained at time of call. all material expected to be recovered. no call back requested.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SANGESLAND

Map Identification Number 31 **APARTMENTS**
 441 WEST END AV (80/81)

MANHATTAN, NY

Spill Number: 9708740

Close Date: 04/27/2004
 TT-Id: 520A-0101-333

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1971 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: 441 WEST END AVENUE
 Revised zip code: 10024

| | | |
|--|--|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: MR FRIEDMAN – APARTMENTS | Spiller Phone: (212) 724-0460 |
| Notifier Type: Responsible Party | Notifier Name: MR FREIDMAN | Notifier Phone: (212) 724-0460 |
| Caller Name: MR FREIDMAN | Caller Agency: MANANGER FOR APTS | Caller Phone: (212) 724-0460 |
| DEC Investigator: SMSANGES | Contact for more spill info: MR FRIEDMAN | Contact Person Phone: (212) 724-0460 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | PBS # Involved | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|----------------|-------------------------|---------------------|
| 10/26/1997 | | TANK FAILURE | 2-272868 | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #6 FUEL OIL | PETROLEUM | 200.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

LEAK IN FUEL TANK CAUSED SPILL INTO CELLAR (CONCRETE FLOOR). EASTMAN OIL COMPANY ENROUTE FOR CLEAN UP.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SANGESLAND GROSS LEAK IN TANK. TANK OUT OF SERVICE. HEAVY FLOW OF #6 INTO BOILER ROOM. ADVISED MR. FRIEDMAN TO INVESTIGATE EXTENT OF PROBLEM. 10/04/2002 closed spill# 0001972, transferred this spill to Sangesland after speaking with Renee Lewis at AL Eastman. Eastman is currently cleaning #6 oil from the basement floor. The oil is apparently oozing back up through the floor, no file found on this site, owners never completed an investigation for this spill(MT)

Per secretary at Mr. Friedman's office, the building is owned by Mr. Friedman.

Contact: Mr. Issac Friedman 441 West End Ave – Apt 1C New York, NY 10024

10/8/2002 Sangesland sent a do Work letter to Mr. Friedman today with a deadline of Nov 8th to submit a Delineation Work Plan to the DEC.

12/23/2003 Sangesland sent another Do Work letter to Mr. Friedman with a deadline of Feb 25, 2004 to submit a Delineation Work Plan to the DEC.

2/26/2004 Property manager is now Leonard Wasner 212-706-0610 Sangesland explained that a series of soil borings will be required around the basement floor to determine if there is an oil contamination problem under the basement floor.

4/20/2004 Sangesland spoke with Anthony Lara of PTC. He was just at the site and the building owner has done a lot of

excavation on his own and Mr. Lara believes the digging is unsafe and structurally unstable. He recommends a DEC site visit ASAP to look at the area and to give DEC direction on what work is required.

4/21/2004 Sangesland met with Mr. Wasner at the site. One side of the former tank has been dug out down to bedrock and the building foundation wall. This was a major excavation and Mr. Wasner had a manifest for all of the soil which was removed. The area looked and smelled clean. There were a couple of spots of solid #6 oil that had layered between some rocks, but it appears that almost all of the oil contamination had been removed.

4/27/2004 Sangesland reviewed a submittal from Mr. Wasner concerning this site. A short narrative of the tank history and spill event, manifest & photos of the excavation.

Spill Closed

Map Identification Number 32 **TZC** **Spill Number: 0501353** **Close Date: 10/11/2006**
 45 WEST 88TH STREET MANHATTAN, NY TT-Id: 520A-0098-776

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2036 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|--------------------------------------|--------------------------------------|
| Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER | Spiller: RICHARD – TZC | Spiller Phone: (917) 709-7145 |
| Notifier Type: Other | Notifier Name: DEENA AIELLO | Notifier Phone: (718) 967-9424 |
| Caller Name: DEENA AIELLO | Caller Agency: IRA CONKLIN | Caller Phone: (718) 967-9424 |
| DEC Investigator: HRPATEL | Contact for more spill info: RICHARD | Contact Person Phone: (917) 709-7145 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 05/03/2005 | | TANK FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | GROUNDWATER |

Caller Remarks:

FEW HOLES AND OIL UNDER BASEMENT FLOOR:

DEC Investigator Remarks:

Sent Contaminated Soil Ltr to:

Elizabeth Ronis 35 West 88th St NY, NY 10024

5/18/05 Tipple Updating/// The spill was initially called in at an incorrect address, the Database has been updated to reflect the actual release location at 45 West 88th Street. Letter to be sent to the updated address.

12/19/05 Feroze. Spill is transferred from Ketani to Feroze. 12/21/05 Feroze, A letter is sent Richard to inform DEC the present status of the site.

02/02/06. Feroze called Richard. She doesn't pickup the phone and a message is left for her. 02/23/06 Feroze called Ms. Richard and left a message for her. CSL is sent to :

MS. RICHARD TZC 45 West 88th Street NY, NY 10024

03/06/06 Feroze. CSL returned to DEC. 03/15/06. Spill is transferred from Feroze to Kumer Patel.

05/04/06–Hiralkumar Patel. spoke to operator at Ira Conklin. she will call back with more information. Received call from Vinny (Cell: 718–509–5900) from Island Tank. they removed tank from location. it is 550 gal AST on concrete pad. when they removed it, they found some holes at bottom of tank and oil stains on concrete pad. removed concrete and found little contamination underneath it. removed contaminated soil and took end point samples. Vinny will send me lab results and disposal manifest.

05/08/06–Hiralkumar Patel. Spoke to Vinny. he is waiting to get lab results from some other person. he got disposal manifest and will mail me those. 05/15/06–Hiralkumar Patel. Spoke to Vinny. he is going to mail all the documents today.

05/18/06–Hiralkumar Patel. Received tank closure report from Vinny. abstract of report: – removed 550 gal AST and system – tank was examined, cut open and then cleaned and removed oil and water mixture with vac/truck scraped and gas free interior of tank. – pits and holes were noted on the tank. – tank floor was broken and approx. four drums (two yards) of soil and fill material in an attempt to dig it clean and it was disposed of at an authorized PCS facility. – no groundwater or static surface water was encountered. – Martin Geochemistry, conducted soil sampling – six soil samples under cement floor – Martin Geochemistry found samples to be clean. – as a safety consideration the owner elected to backfill completion of the sampling activities – tank was found to be void of any liquids at time of removal

report is not consistent. report doesn't have end point lab results and site plan with sampling locations. at one point they said they removed oil/water with vac truck and on second page saying that tank was found to be void of any liquids. Spoke to Vinny and asked to send lab results & site plan with sampling locations.

06/06/06–Hiralkumar Patel. Left message for Vinny (cell phone number is out of service) at 718–967–9424. Left message at TZC.

06/09/06–Hiralkumar Patel. Left message for Vinny. Received call from Vinny's office. spoke to Malissa. she told me that Vinny will contact geologist and will find required documents.

07/05/06–Hiralkumar Patel. Left message for Vinny. Received call from Vinny. he is still waiting to get lab results from company who did sampling and has lab results. once Vinny gets it he will forward this result to the Department. as per Vinny, tank was

empty when they removed it.

08/16/06–Hiralkumar Patel. visited site. met Julie Marshall, current owner of building. she has bought this property in 2005. Ms. Marshall doesn't know anything about contaminated soil removal from site. spoke with Larry Barns, contractor of building. as per him, tank removal company has removed tank. asked Ms. Marshall and Mr. Barns to submit tank closure report with endpoint sample analyticals.

Julie Marshall 45 W 88th Street Manhattan, NY 10024 Ph. (212) 864–6706

Larry Barns Integkral Design and Construction LLC Ph. (914) 497–0543 FAX (212) 254–9382

(203) 732–2992

sent CSL to Ms. Marshall. letter faxed to Mr. Barns.

08/22/06–Hiralkumar Patel. received copy of report from Integkral Design and Construction. this report i have previously from vinny. but this report doesn't have lab analyticals as well as sample locations on site plan. send email to Mr. Barns (jlbsea@rcn.com) requesting such information.

09/27/06–Hiralkumar Patel. received fax from Vinny stating that they are waiting for lab analyticals. spoke with Allen at Island tank. as they don't have lab analyticals for previous samples, they took new five samples and will submit final report.

10/11/06–Hiralkumar Patel. received closure report from Vinny. five soil samples taken from sides and bottom of tank area. no contamination found in any samples.

based on available information, case closed. sent NFA letter to Ms. Marshall. letter faxed to Mr. Barns and to Mr. Lovari.

Map Identification Number 33



52 RIVERSIDE DRIVE
52 RIVERSIDE DRIVE

MANHATTAN, NY

Spill Number: 0009236

Close Date: 01/09/2006

TT-Id: 520A-0091-162

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 2291 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
Notifier Type: Local Agency
Caller Name: RONALD MARKEY
DEC Investigator: rmpiper

Spiller: MID BORO MANAGEMENT – 52 RIVERSIDE DRIVE
Notifier Name: PETER JEB
Caller Agency: AMERICAN HI-TECH
Contact for more spill info: RONALD MARKEY

Spiller Phone: (212) 877–2525
Notifier Phone: (732) 389–8181
Caller Phone: (732) 389–8181
Contact Person Phone: (732) 389–8181

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 11/10/2000 | | TANK FAILURE | YES | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | PETROLEUM | 100.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

APARTMENT DWELLING – CO–OP – MID BORO REPRESENT SAL CANTENELLI

DEC Investigator Remarks:

1/18/2004 Spill transferred from Sigona to Sawyer.

100 gallon spill of #6 oil into the basement.

Sangesland spoke with Michael Jaffa who was at a financial Closing on the building. Property manager is AJ Rexeppi of Century Management – 212–560–6400

Mr. Rexeppi will be calling Sawyer to determine what work is needed to close out this spill case.

1/19/04 – Sawyer – Talked to Michael of Century Management and explained needed information needed close out spill. He will try to provide information in a timely manner.

12/27/05– DEC Piper left message w/ AJ of Century requesting callback and info.

1/9/06– DEC Piper reviewed summary report dated 1/30/2001 and analytical from GAC Environmental. As per report, and analytical, the site has been cleaned up. NFA. See E–Docs if warranted.

Map Identification Number 34



205 W 88TH ST/MANHATTAN
205 WEST 88TH STREET

NEW YORK CITY, NY

Spill Number: 9007713

Close Date: 01/02/1991

TT–Id: 520A–0091–777

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 2308 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

| | | |
|--|------------------------------|-------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: RUCKMAN MGNT | Spiller Phone: (212) 799-2812 |
| Notifier Type: Other | Notifier Name: | Notifier Phone: |
| Caller Name: TONY SIMONE | Caller Agency: A L EASTMOND | Caller Phone: (212) 378-3000 |
| DEC Investigator: O'DOWD | Contact for more spill info: | Contact Person Phone: |

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/12/1990 | 01/02/1991 | TANK FAILURE | UNKNOWN | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 1200 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

OWNER OF TANK (4K) NOTIFIED A L EASTMOND, SERVICEMAN DISCOVERED

POROUS BOTTOM, BASEMENT HAS SUMP & DRAIN, BASEMENT PUMPED & CLEANED, ALL CONTAMINATED MATERIALS REMOVED.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

01/02/90: TANK WILL BE REPAIRED BY A L EASTMOND.

10/10/95: This is additional information about material spilled from the translation of the old spill file: WATER/OIL EMULSION.

Map Identification Number 35 **OCONNOR HOME**
 264 WEST 71 STREET

Spill Number: 0510860 **Close Date: 04/20/2006**
 NEW YORK, NY TT-Id: 520A-0095-748

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2439 feet to the WSW

ADDRESS CHANGE INFORMATION
 Revised street: 264 W 71ST ST
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Other
 Caller Name: PHILIP CAPUTO
 DEC Investigator: SFRAHMAN

Spiller: ROBERT OCONNOR - OCONNOR HOME
 Notifier Name: PHILIP CAPUTO
 Caller Agency: ECONOMY FUEL
 Contact for more spill info: ROBERT OCONNOR

Spiller Phone: (212) 877-1894
 Notifier Phone: (718) 599-5100
 Caller Phone: (718) 599-5100
 Contact Person Phone: (212) 877-1894

| | | | | | | | |
|------------------|---|----------------|-------------------------|---------|---------------------|---------|----------------------|
| Category: | Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters. | | | | | | |
| Class: | Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency | | | | | | |
| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
| 12/16/2005 | | TANK FAILURE | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | | PETROLEUM | 50.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

BOTTOM OF TANK RUPTURED; IS COTAINED AND IS CLEANING UP AT THIS TIME

DEC Investigator Remarks:

Sangesland spoke to Philip Caputo of Economy Fuel. He said this is the first time he has delivered to this address. 2 hours after delivery, the owner called to say the house smelled of oil. Oil company sent a crew to the house to clean up.

Sangesland spoke to Mr. O'Connor (homeowner). He said the spill is about 50 gallons from a hole in the bottom of the tank. The basement is unfinished, but unknown if any drains were impacted. 01/30/06 Sharif// I spoke with David Oconnor,(212)877-1894, son of R.Oconnor and he informed me Economy Fuel cleaned up the spill and fixed the tank system.I suggested him to send DEC relevant documents. 03/21/06 Sharif Rahman- Clean up letter was sent to Robert O'connor 264 W. 71st Street New York, NY 10023 04/05/06 Sharif Rahman- Mr. Franky from Economy Fuel,(718)599-5100 called to know what needs to be done to close out the spill case. I told him to send DEC a report stating the brief clean up activities with waste disposal manifest, photographs and soil sampling result if oil spill had seeped to the soil. He said he would do that. 04/20/06 Sharif Rahman-Rec'd invoice of clean up, manifest and brief description of clean up job. No soil/sewer was impacted. NFA required.

Map Identification Number 36



TRANSFORMER VAULT #5535

210 W 89TH ST

MANHATTAN, NY

Spill Number: 9812557

Close Date: 02/01/1999

TT-Id: 520A-0092-571

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 2441 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: UNK Spiller Phone:
 Notifier Type: Affected Persons Notifier Name: STEVE ROMERO Notifier Phone: (212) 580-6763
 Caller Name: STEVE ROMERO Caller Agency: CON EDISON Caller Phone: (212) 580-6763
 DEC Investigator: TOMASELLO Contact for more spill info: STEVE ROMERO Contact Person Phone: (212) 580-6763

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/11/1999 | | TANK FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #2 FUEL OIL | PETROLEUM | 20.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

CONTRACTOR SOUTH OF VAULT AREA IS REPLACING FUEL TANKS-UNK IF THIS IS RELATED. CON ED# NOT AVAIL YET.

DEC Investigator Remarks:

1/12/99: ERT Perez, Con Ed – tank repair in apartment building – oil appears to be coming in through walls of vault. Sump pump in vault pumped out to sewer. DEP notified. Site has possible monitoring wells. Transformer will have to be de-energized and removed prior to cleaning. Sump pump disconnected. Lab results PCB <1 ppm, fingerprint mixture of light and heavy fuel oil. Spill transferred to Tomasello for follow up. (JHO)

Map Identification Number 37 **APT BUILDING**
 210 WEST 89TH ST

Spill Number: 9810768 **Close Date: 07/08/2003**
 MANHATTAN, NY TT-Id: 520A-0101-138

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2441 feet to the N

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
 Notifier Type: Other
 Caller Name: JOE OSTROWSKI
 DEC Investigator: SMSANGES

Spiller: JIM GALANIS – APT BUILDING
 Notifier Name: JOE OSTROWSKI
 Caller Agency: A.L. EASTMAN & SONS, INC
 Contact for more spill info: JIM GALANIS

Spiller Phone: (212) 582-4000 ext. 2
 Notifier Phone: (718) 378-3000
 Caller Phone: (718) 378-3000
 Contact Person Phone: (212) 582-4000 ext. 2

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 11/24/1998 | | TANK FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 5000 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

caller received a call stating that apt building lost 5000 gals over the weekend tank was opened and cleaned and found that head of tank rotted

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SANGESLAND 1/2/2002 – Sangesland spoke with F&N about the site.

F&N installed 5 wells in the sidewalk around the tank of a #6 oil spill. Well # 1,2,5 are hooked into a Floating Recovery System. Installed about 5 years ago and was very effective at pulling out lots of free product in the begining. Now the issue is remediation of saturated soil in the areas away from the recovery wells. #6 oil does not travel freely in soil and the existing system will not address the area more than three feet from the wells.

Whoever takes over operation of this project will need to develop a remediation system which addresses this suspended oil.

2/3/2003 Sangesland visited site with RND Services & Property Manager. Site has been excavated and the existing tank has been cut up. 90% of the old tank has been removed along with a large amount of contaminated soil. According to RND, the hole has been dug down to bedrock and as wide as possible.

Sangesland requested a closure report with end point samples, photos and a write up describing the small residual contamination left at the site.

7/8/2003 Sangesland reviewed a report by RND dated January 2003, but submitted to the DEC on July 7, 2003. This report documented all of the work done to excavate the old tank along with 156 tons of contaminated soil. Due to the location of the the Con Ed box and the adjacent street, additional digging was not possible. The end result was a reasonably clean hole with some minor SVOC hits on the street side wall. The excavation went down to the bedrock under the tank and right up against the building foundation.

No additional work will be required at this site.

Spill Closed – Austin – 8/19/09 – See also spill # 0200291, et. al. Con Ed vault impacted by this spill – end

| | | | | |
|---|---|---|---|---|
| Map Identification Number 38  | SPILL NUMBER 9911904 2 WEST 90TH ST | MANHATTAN, NY | Spill Number: 9911904 | Close Date: 07/07/2000 TT-Id: 520A-0098-785 |
| MAP LOCATION INFORMATION Site location mapped by: PARCEL MAPPING (1) Approximate distance from property: 2449 feet to the NE | | ADDRESS CHANGE INFORMATION Revised street: NO CHANGE Revised zip code: NO CHANGE | | |
| Source of Spill: PRIVATE DWELLING | Notifier Type: Other | Spiller: CAROLYN GREENBERG | Spiller Phone: (212) 877-8500 | |
| Caller Name: MATTHEW STOCK | DEC Investigator: SMSANGES | Notifier Name: MATTHEW STOCK | Notifier Phone: (212) 875-9506 | |
| | | Caller Agency: GAC ENVIRONMENTAL | Caller Phone: (212) 875-9506 | |
| | | Contact for more spill info: CAROLYN GREENBERG | Contact Person Phone: (212) 877-8500 ext. 2 | |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 09/01/1999 | | TANK FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

CALLER STATES THERE IS AN OLD TANK ON SITE AND PRELIMINARY INVESTIGATION REVEALS TANK MAY BE LEAKING

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SANGESLAND 1/13/2000 Sangesland spoke with Matt Stock (GAC Environmental 212-875-9506) He said the problem was in the basement of a small co-op building. Resident of basement unit complained of oil smell. Oil tank in rear of building was replaced in 1998(?) with a new tank. Investigation of smell was towards the front of the building. Plywood floor was pulled up to find oil staining on the bare dirt (no cement floor). Further investigation found an abandoned oil tank (approx 500 gal) located under the front sidewalk. Leak probably came from there.

GAC plans on pulling up the plywood floor in the basement, track it back to the source, scope out the size of the problem and then propose a clean up procedure. At this time the tenent of the apartment is living in a hotel.

Sangesland plans on visiting the site on 1/14 at 9 AM.

1/14/2000 Sangesland went to the site and confirmed info above. Matt Stock will work with Carolyn (managing agent) to open up tank wall area in outside alley area. Also possible opening in basement apartment.

1/20/2000 – Carolyn (managing agent) called and asked Sangesland to call insurance company to brief them on site problem. Contact is Alex Seaman at SRW – 516–496–7600. Mr. Seaman was briefed and will look into environmental contractors.

2/18/2000 Carolyn is no longer working at the managing agent. New contact for this project is Joe Migarth (Spelling???)

4/17/2000 Excavation investigation indicates 2 small holes were found in the sidewalk fill pipe. This could be the source of the problem found in the basement apartment.

4/17/2000 Sangesland went to the site and saw the excavation of the basement area. Matt Stock of GAC was running the environmental cleanup of the site. Sangesland, Mr. Stock and various members of the co-op board, resident & managing agent were present. Based on this site visit, the following steps were outlined to solve the problem:

1) The excavated material has been removed from the site and properly disposed of. 2) Pour Biorem into all excavation openings (basement, electric meter room and street excavation)– This material will biologically eat any residual petroleum which was not removed by excavation. 3) Coat all basement edges with epoxy– This will help prevent the movement of any vapors back into the basement area. 4) Install a layer of pea gravel in the open area below the basement floor level. 5) Prior to pouring a new basement floor cement slab, install a passive venting system to remove any residual petroleum vapors from beneath the basement slab. This system will consist of a network of 3 inch slotted PVC piping under the basement slab in the pea gravel layer. The end of this pipe will extend over the top of the interior footing, through the basement wall and out into the exterior vault area. **** Note***** If a problem comes back in the future, a slow speed blower can be attached to this venting system to suck out any vapor buildup in the area under the slab floor. 6) Above the pea gravel a layer of 30 mil plastic will be laid out to offer additional vapor blockage. 7) Above this plastic, a new concrete floor slab will be poured which will be painted with epoxy paint. 8) All openings, cracks and spaces in the floor will be filled and coated with epoxy to restrict future vapor flow.

Matt Stock wrote up these notes and submitted them to the DEC in a letter dated 4/28/2000.

7/7/2000 Matt Stock submitted a letter dated 7/5/2000 in which he said all of the work outlined above had been completed.

Spill Closed out 7/7/2000

Map Identification Number 39 **240 WEST END AVE**
 240 WEST END AVE

MANHATTAN, NY

Spill Number: 9515030

Close Date: 02/08/2005
 TT-Id: 520A-0092-296

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2498 feet to the WSW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: 10023

| | | |
|--|--|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: FRANK – ACE ATLAS | Spiller Phone: (718) 497-3003 |
| Notifier Type: Other | Notifier Name: FRANK | Notifier Phone: (718) 497-3003 |
| Caller Name: BOB DECK | Caller Agency: PETROLEUM TANK CLEANERS | Caller Phone: (718) 624-4842 |
| DEC Investigator: RWAUSTIN | Contact for more spill info: FRANK | Contact Person Phone: (718) 497-3003 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Unable or Unwilling RP – DEC Field Response – DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/22/1996 | | TANK FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 50.00 | GALLONS | 50.00 | GALLONS | SOIL |

Caller Remarks:

tank was leaking – tank has been emptied and spill cleaned up

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was AUSTIN 3/23/04 – AUSTIN – ORIG. ASSIGNED TO ENGELHARDT – END

2/8/05 – Austin – 9 year old surf. spill assigned to prior staff member, no further info – closed – end

Map Identification Number 40 **PRIVATE RESIDENCE**
 240 WEST END AVE

NEW YORK, NY

Spill Number: 0412040

Close Date: 10/26/2005
 TT-Id: 520A-0091-585

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2498 feet to the WSW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: 10023

| | | |
|-----------------------------------|---|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: DIANA PARKER – PRIVATE RESIDENCE | Spiller Phone: (718) 624-4842 |
| Notifier Type: Other | Notifier Name: DIANA PARKER | Notifier Phone: (718) 624-4842 |
| Caller Name: DIANA PARKER | Caller Agency: PETROLEUM TANK CLEANERS | Caller Phone: (718) 624-4842 |
| DEC Investigator: SMSANGES | Contact for more spill info: DIANA PARKER | Contact Person Phone: (718) 624-4842 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/11/2005 | | TANK FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #6 FUEL OIL | PETROLEUM | 30.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

TANK RUPTURED AT ABOVE LOCATION AND PETRO. TANK CLEANERS ENROUTE: IN BASEMENT

DEC Investigator Remarks:

2/11/05 MT/// 10,000 gal #6 FO tank sprung a leak, PTC responding with 2 vac trucks and a spills van to the scene. Plans to clean floor, empty leaking tank, install temporary tanks today.

10/26/2005 Sangesland received a letter from Petroleum Tank Cleaners stating that the initial spill was 30-50 gallons of #6 oil from the tank into the tank room floor. The area was cleaned and manifested.

The tank was removed and eventually replaced. PTC tried to drill a hole through the cement floor of the tank room to determine if the soil underneath was impacted. After 14 inches of cement, the drilling was stopped.

Spill Closed.

Map Identification Number 41 **1995 BROADWAY**
 1995 BROADWAY

MANHATTAN, NY

Spill Number: 0105791

Close Date: 09/12/2006
 TT-Id: 520A-0095-259

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2625 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|-------------------------------|------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Fire Department | Notifier Name: | Notifier Phone: |
| Caller Name: DISPATCHER 457 | Caller Agency: MANHATTAN FIRE | Caller Phone: (212) 570-4300 |
| DEC Investigator: qxabidi | Contact for more spill info: | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/29/2001 | | TANK FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| UNKNOWN PETROLEUM | PETROLEUM | 150.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

tank is leaking in the basement of a commercial bldg – notification only

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIPPLE 9/23/03 TIPPLE SENT DOCUMENTATION REQUEST

10/10/03 RECIEVED BILLS FOR WORK, NO MANIFESTS, ANALYTICALS, PHOTOS ETC. IN FILE... NEXT TO OLLIES.

10/20/2004 Sangesland requested a Tank Test Cross Ref Spill #0407958

08/31/06: This spill is transferred from Mr. Koon Tang to Q.Abidi. Called Dispatcher 457 (Manhattan fire) at (212)570-4300 could not get him. -QA

Robert Trombino (property manager) Cammeby's Management Co LLC 45 Broadway 25th Floor New York, NY 10006 Ph. (212) 509-9797 Ext.3795 FAX (212) 509-5229

Miro Kormanik (super) Cammeby's Management Co LLC Ph. (212) 362-1159 FAX (212) 362-1491

09/12/06: According to the ABC Tank Repair Tank passed the test. Soil samples and water samples are cleaned. Based on the information provided by ABC Tank Cleaners DEC staff closed the spill. -QA



CLOSED STATUS TANK TEST FAILURES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identification Number 42 **BLDG** **Spill Number: 9903694** **Close Date: 12/24/1999**
 102 WEST 79TH ST MANHATTAN, NY TT-Id: 520A-0092-626

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 165 feet to the W*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|----------------------------|---|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: WILLIAM SONN – BLDG | Spiller Phone: (212) 923-2121 |
| Notifier Type: Tank Tester | Notifier Name: JIM LEDDY | Notifier Phone: (516) 321-4670 |
| Caller Name: JIM LEDDY | Caller Agency: PROTEST ENTERPRISES | Caller Phone: (516) 321-4670 |
| DEC Investigator: MCTIBBE | Contact for more spill info: WILLIAM SONN | Contact Person Phone: (212) 923-2121 |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 06/30/1999 | | TANK TEST FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 1 | 2000 | Horner EZ Check I or II | 0.00 | UNKNOWN |

Caller Remarks:

Map Identification Number 44 **20 PRECINCT NYPD –DDC**
 120 WEST 82ND STREET

MANHATTAN, NY

Spill Number: 9614401

Close Date: 10/31/2003
 TT-Id: 520A-0098-763

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 416 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
 Notifier Type: Tank Tester
 Caller Name: ROBERT KLESHEFSKY
 DEC Investigator: JMKRIMGO

Spiller: ROBERT KLESHEFSKY – 20TH PRECINCT NYPD
 Notifier Name: ROBERT KLESHEFSKY
 Caller Agency: DRY AS A BONE INC.
 Contact for more spill info: ROBERT KLESHEFSKY

Spiller Phone: (516) 678-5115
 Notifier Phone: (516) 678-5115
 Caller Phone: (516) 678-5115
 Contact Person Phone: (516) 678-5115

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors),
 contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 03/12/1997 | | TANK TEST FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIESEL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 001 | 1000 | Horner EZ Check I or II | 0.00 | FAIL |

Caller Remarks:

CALLER DID TEST – GROSS FAILURE – UNK IF ANY PRODUCT LEAKED. SEE SPILL # 9512927.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was KRIMGOLD

6-6-2005 Reviewed Request for Spill Closure issued by URS in January 2005. NFA letter was issued. AZ

Map Identification Number 45

20 PRECINCT NYPD -DDC

Spill Number: 9512346

Close Date: 06/06/2005



120 WEST 82ND STREET

MANHATTAN, NY

TT-Id: 520A-0098-761

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 416 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
 Notifier Type: Tank Tester
 Caller Name: ROBERT SKEFSKLY
 DEC Investigator: ADZHITOM

Spiller: DESK SSGT - 20TH PRECINCT
 Notifier Name: ROBERT SKEFSKLY
 Caller Agency: DRY AS A BONE INC
 Contact for more spill info: DESK SSGT

Spiller Phone: (516) 678-5115
 Notifier Phone: (516) 678-5115
 Caller Phone: (516) 678-5115
 Contact Person Phone: (516) 678-5115

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 01/03/1996 | | TANK TEST FAILURE | NO | NO |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 001-004 | 550 | Horner EZ Check I or II | 0.00 | UNKNOWN |

Caller Remarks:

gross failure - 550 gasoline tank. Also see spill #s 9614401 and 9512927.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was ZHITOMIRSKY 1/17/96 Contaminated soil found in excavation. Stockpiled on site.

1/25/96 Product floating on water in gasoline tank removal excavation. May be fuel oil from adjacent active tank. Will test tank.

TRANSFERRED FROM Y.KRIMGOLD.The site is being remediated under NYCDDC COntent Order. It was managed by Y. Krimgold and then transferred to A. Zhitomirsky.

Department received and reviewed a Quarterly Status Report (June-September 2004)from the City's contractor. The site has groundwater contamination plume. Bioremediation technology (Permeox Plus injection) was applied at this site to treat

groundwater. MTBE was the only contaminant detected at the site. MTBE concentrations are decreasing. Consultants will perform another round of groundwater sampling and if groundwater criteria is not exceeded they will request a spill closure. The report was reviewed and approved by the staff. DEC recommended that if contamination persists in MW-7, currently the only well at the site exhibiting contamination, this well should be over-drilled and reinstalled. (A. Zhitomirsky)3/2005

6-6-2005 Reviewed Request for Spill Closure issued by URS in January 2005. According to the report contaminant concentrations in all existing monitoring wells at the site have been below NYSDEC Criteria for two consecutive sampling events. Spill was closed and NFA letter was issued. AZ

Map Identification Number 46 **150 WEST 82 STREET REALTY ASSOC, LLC** **Spill Number: 0408295** **Close Date: 09/14/2007**
 150 WEST 82ND ST MANHATTAN, NY TT-Id: 520A-0098-756

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 702 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|---|---|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: JOE JIVERA | Spiller Phone: (212) 977-0000 ext. 2 |
| Notifier Type: Tank Tester | Notifier Name: PHILIP FAZON | Notifier Phone: (516) 375-5890 |
| Caller Name: PHILIP FAZON | Caller Agency: A-1 CROWN LEAK | Caller Phone: (516) 375-5890 |
| DEC Investigator: jamaison | Contact for more spill info: JOE JIVERA | Contact Person Phone: (212) 977-0000 ext. 2 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 10/27/2004 | | TANK TEST FAILURE | NO | NO |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 1 | 4000 | Horner EZ Check I or II | 0.00 | UNKNOWN |

Caller Remarks:

PBS No: 2-084271

DEC Investigator Remarks:

2/25/05. Tank on the basement floor, but completely covered with concrete failed the tightness test. Concrete encasement was removed and tank found to be leaking. Test pit holes was advanced through the concrete floor under the tank and were quickly filled with a mixture of oil and water. About 4-5 of sand and gravel under concrete floor followed by the bedrock. An investigation work plan will be submitted from a consultant.

10/28/05- Spill Case is transferred from J.Krimgold to I. Islam.

7/27/06: DEC case lead transferred from I. Islam to J.A. Maisonave. - JAM

9/12/07 PBS # 2-084271. Called and left a message with the property owner (Mourice Mann Phone #:212-977-0000). He should call me back by Mon 9/17. Follow-up investigation is necessary. - JAM

9/14/07 Received a call from Janet Sameka at Mann Realty (phone # 212-977-0000 x 231). She said that spill number 0409941 was closed and NFA was issued by Patel Haralkumar. I spoke with Kumar and he said the spill was cleaned up and soil samples were returned non-detect. There is only one tank at the site so there are duplicate spill #'s for this incident.

This spill case will be closed. Refer to spill 0409941. - JAM

Map Identification Number 47 **WEST 83RD ST REALTY CORP** **Spill Number: 9906666** **Close Date: 08/07/2005**
 146 WEST 83RD ST MANHATTAN, NY TT-Id: 520A-0098-764

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 792 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|--|--------------------------------------|
| Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER | Spiller: JOHN - WEST 83RD ST REALTY CORP | Spiller Phone: (718) 729-4368 |
| Notifier Type: Tank Tester | Notifier Name: EMPLOYEE | Notifier Phone: |
| Caller Name: THOMAS LEDDY | Caller Agency: PROTEST ENTERPRISES | Caller Phone: (516) 321-4670 |
| DEC Investigator: ADEBONG | Contact for more spill info: JOHN | Contact Person Phone: (718) 729-4368 |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 09/03/1999 | | TANK TEST FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #4 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 1 | 5000 | Horner EZ Check I or II | 0.00 | FAIL |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SANGESLAND

7/21/05: A call was placed to the facility, facility representative requested for more information, a faxed copy of the spill report was sent to the facility.

A tank test result was mailed to the Department, a review of the report indicated that they was no oil spill and as such no need for remediation.

Map Identification Number 48

ABOVE GROUND TANK TTF

Spill Number: 1216531

Close Date: 08/01/2013



172 WEST 79TH

NYC, NY

TT-Id: 520A-0286-950

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 865 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: 172 W 79TH ST
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Other
 Caller Name:
 DEC Investigator: SMSANGES

Spiller: UNKNOWN
 Notifier Name:
 Caller Agency:
 Contact for more spill info: TRACY

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (212) 877-8500 ext. 2

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 03/19/2013 | | TANK TEST FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | |

Caller Remarks:

4000g tank

DEC Investigator Remarks:

3/27/13 AFrischeisen intern TTF letter sent.

8/1/2013 Sangesland reviewed a letter dated June 14, 2013 from Donna at ABC Tank (718-272-2800). Letter says 5,000 gal AST failed the test because of a problem with lines running thru a poorly sealed manway. Manway was replaced and new suction & return lines were connected and the tank/system passed a retest on 5/1/2013. They also said that no contamination was found during any of this work. Spill closed.

Map Identification Number 49 **APT BLDG** **Spill Number: 0902145** **Close Date: 12/04/2012**
 150 WEST 84TH ST MANHATTAN, NY TT-Id: 520A-0229-407

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1017 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|--|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: PAT HARPER – APT BLDG | Spiller Phone: |
| Notifier Type: Tank Tester | Notifier Name: | Notifier Phone: |
| Caller Name: | Caller Agency: | Caller Phone: |
| DEC Investigator: SMSANGES | Contact for more spill info: PHIL FRAZIN | Contact Person Phone: (516) 375-5890 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 05/22/2009 | | TANK TEST FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | |

Caller Remarks:

TANK TEST FAILURE ON A 1500 GALLON ABOVE GROUND TANK. UNK IF THERE IS A LEAK.

DEC Investigator Remarks:

05/22/09–Vought–Duty desk officer. Spill assigned to DEC Krimgold as tank test failure of PBS Site (See PBS#2–234222). Vought called Phil Fazin (516) 375–5890 and tank is covered in concrete. Anthony Lara from Riteway will remove concrete and tank did not hold pressure and odors were present. Fazin unsure if tank is leaking as in contact with concrete. Vought called and spoke to Anthony Lara from Riteway (917–709–3317) who had crew onsite beginning to remove concrete vault around AST. Lara noted that failure was dry leak and that updated PBS registraton would be sent in as owners contact info had changed. As per Lara, TTF letter should be sent to:

Phancz Realty P.O. Box 931 Planetarium Station New York, NY 10024

Vought also spoke with DEC Krimgold who required that no additional deliveries by performed until tank is repaired. Vought sent out TTF letter with one month due date and additional requirements of submission of updated PBS registration as well as no new deliveries until tank is repaired. Vought received callback from Lara who was onsite and was removing oil from tank so that metal weld could be performed.

08/13/12 – LZ As Randy Austin requested, the spill has been reassigned to Tim DeMeo.

12/4/2012 Sangesland reviewed a letter and tank test passing from RiteWay. A new metal patch was welded onto the tank back in 2009 and the tank was retested and passed. See letter and tank test in eDocs.

Map Identification Number 50



COMMERCIAL BUILDING

200 W. 78TH ST

MANHATTAN, NY

Spill Number: 1114440

Close Date: 04/20/2012

TT–Id: 520A–0271–497

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 1021 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Other

Caller Name:

DEC Investigator: HRPATEL

Spiller: MORGAN CONDOS

Notifier Name:

Caller Agency:

Contact for more spill info: MORGAN CONDOS–CAROLINE

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: 212–362–5227

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 03/28/2012 | | TANK TEST FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | |

Caller Remarks:

TTF

DEC Investigator Remarks:

03/28/12–Hiralkumar Patel. alternate address: 368–378 Amsterdam Ave no other spills found. PBS #: 2–310395. as per PBS record, the site has one 2,000 gal #2 oil AST in contact with soil. tank installed in Jan. 1985.

4:34 PM:– left message for Chris at PTC.

03/29/12–Hiralkumar Patel. 3:27 PM:– spoke with Ray at PTC. he mentioned that they cleaned the aboveground tank (in vault) on 02/14/12. no sign of leak found around the vault. during tank test, they found dry leak. owner has been informed. 3:34 PM:– left message for Carolyn. 4:30 PM:– received call from Carolyn. she mentioned that the building is self–managed by its occupants and she represents board of managers. asked her to conduct an isolation test to find out leaking part. she will talk to PTC.

The Morgan Condominium

property owner 200 West 78th Street New York, NY 10024 Attn. Board of Manager

Carolyn Law

contact person at condo Ph. (212) 362–5227 email: themorgancondominium@gmail.com

04/02/12–Hiralkumar Patel. 10:43 AM:– spoke with Ms. Law. she mentioned that PTC crew is at the site conducting isolation test. PTC will call back once gets the result. 2:53 PM:– received message from Ms. Law. she mentioned that tank passed the tightness test. 4:48 PM:– spoke with Ray at PTC. he confirmed that fill/supply/return lines and tank only passed the isolation test and they found problem in vent line. he is submitting proposal for vent line replacement. 4:49 PM:– spoke with Ms. Law and informed her that the department requires tightness testing of the entire tank system, after necessary repair on vent line. she will submit results, once available.

04/05/12–Hiralkumar Patel. 2:47 PM:– received message from Ms. Law. she mentioned that tank system passed the test after fixing vent line.

04/06/12–Hiralkumar Patel. 10:52 AM:– received message from Ray. they replaced the vent line and retested the tank system and it passed.

04/10/12–Hiralkumar Patel. 3:21 PM:– spoke with Ms. Law and asked her to submit tank test result and letter explaining cause of initial failure.

04/18/12–Hiralkumar Patel. 4:24 PM:– received email from Marisol from PTC including tank test results. documents are not fully scanned. also, email does not include a report regarding cause of failure and summar of work done.

04/19/12–Hiralkumar Patel. 12:08 PM:– sent email to Marisol and asked to send tank test results again. also asked to submit a detailed report including cause of tank system failure and summary of work performed. email copied to Ms. Law.

04/20/12–Hiralkumar Patel. 10:43 AM:– received email from Ray from PTC including closure report.

based on available information, case closed. 10:57 AM:– sent email to Ms. Law and informed her that the case is closed. email copied to PTC.

Map Identification Number 51 **APARTMENT BUILDING** **Spill Number: 1104682** **Close Date: 09/20/2011**
 202 WEST 78TH ST NY CITY, NY TT-Id: 520A–0265–914
 202 WEST 78 ST TENANTS CORP.

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1055 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: CHRISTOPHER QUINTANA – 202 WEST 78 STREET TENANTS
 Notifier Type: Other Notifier Name: Spiller Phone:
 Caller Name: Caller Agency: Notifier Phone:
 DEC Investigator: RVKETANI Contact for more spill info: CAROLINE Caller Phone:
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 07/25/2011 | | TANK TEST FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 1 | 1080 | Horner EZ Check I or II | 0.00 | UNKNOWN |

Caller Remarks:

repair/retest pending – unsure of status of cleanup

DEC Investigator Remarks:

7/25/11 – Raphael Ketani. The spill was called in today as a tank test failure. The site is a 5 story early 1900s apartment building in the middle of the block.

The block and lot are 1169 and 35. The owners are 202 West 78 Street Tenants Corp., 10024. The building is a co-op and the management company is Merlot Management, 201 West 91 Street, Ste 1D, NY, 10024.

According to Donna Vieni of ABC Tank (718) 272–2800, the tank is a 1080 gal. with #2 oil. They don't know what part of the tank system failed. So they are going to isolate and retest. Right now, ABC crew can see the top of the tank through a 5 foot diameter hole on top. The tank is behind a wall. So they don't know whether it's on stilts or on the ground. It sits behind a wall which is also part of an apartment. So they're trying to avoid knocking down the wall in order to deal with the tank.

I sent a TTF letter to Merlot Management.

8/19/11 – Raphael Ketani. I spoke to Christopher Quintana of ABC about the tank test failure. He said that ABC went over there yesterday and tested the tank system. They used the E–Z horner test and noted a vacuum loss. This took place with the tank empty and clean. So they replaced most of the vent pipe, the fill and another pipe coming from the tank. They did the test again and the system still failed. So Mr. Quintana told Tom, the monitoring engineer for Merlot Management, that ABC would have to examine all of the fittings with a pressure test and soap to see where the leaks are. Tom agreed to the new test. Mr. Quintana added that the fittings on all of the old lines were so loose that he could hand turn them. Also, someone many years ago had made two cut outs on the tank in order to get inside and had reattached them with two part epoxy. The epoxy was porous. So this added to the failure. Mr. Quintana told Tom that ABC would have to knock down the sheetrock wall that closed off the tank in order to test all of the fittings. Tom was in agreement with this, too. With all of these loose fittings, I asked Mr. Quintana whether he could determine that oil had leaked from the tank system. He said that there was a slight odor of oil once you opened up the tank room, but nothing else. Also, he said that the white painted sheet rock did not show any signs of oil contamination or leakage. Lastly, he said that he steel welding crew had entered the empty tank and didn't see any holes. The two cut outs were properly welded to the tank. The new test will take place monday, 8/22/11. Mr. Quintana will inform me regarding the test results.

9/8/11 – Raphael Ketani. Mr. Quintana (718) 272–2800 of ABC called me today. He said that the tank passed the integrity test will all of the lines attached. He will send me the paperwork. He added that ABC repaired the top of the tank, the vent line and fill pipe fittings. The complete report will be sent to the DEC tomorrow.

Later, I received the tank integrity test report from Mr. Quintana by e-mail. The testing was performed by Estabrooks and the report was dated 8/26/11. The information showed a passing test with consistent results. I had no comments. Mr. Quintana wrote that the full report will be forthcoming soon.

9/16/11 – Raphael Ketani. I tried to contact Mr. Quintana, but I could only leave a message requesting the closure report.

9/19/11 – Raphael Ketani. Mr. Quintana called me back. He said that he will talk to the secretaries and have them send me the full closure report as they have all of the documentation. I asked him whether there are any odors or oil staining left. He said that there were no odors and the little staining that was present had been cleaned up.

9/20/11 – Raphael Ketani. Today I received a FAX containing the closure report for the work that was performed at the site. The FAX contained a cover page, a page explaining the work that took place, a copy of the passing 8/26/11 tightness test report and a diagram showing where the 1080 gal. tank was in relation to the building and the sidewalk. I reviewed the report and didn't have any comments.

Based upon the information in the case file and the database notes, it appears that ABC Tank made the necessary repairs to the tank system. Also, the system tested tight. Therefore, I have determined that there is no threat to the public or the environment. I closed the spill case.

Map Identification Number 52 **LEWIS BRANDEIS HIGH SCHOOL** **Spill Number: 0210864** **Close Date: 12/26/2014**
 145 WEST 84TH STREET NEW YORK, NY 10024 TT-Id: 520A-0098-744

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1132 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|---|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: JAMES MERLO – LEWIS BRANDEIS HIGH SCHOOL | Spiller Phone: (718) 391-6832 |
| Notifier Type: Tank Tester | Notifier Name: SAME | Notifier Phone: |
| Caller Name: PHIL FAZIN | Caller Agency: CROWN LEAK DETECTION | Caller Phone: (516) 375-5890 |
| DEC Investigator: VXBREVDO | Contact for more spill info: PHIL FAZIN | Contact Person Phone: (516) 375-5890 |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 01/29/2003 | | TANK TEST FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #6 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 1 | 20000 | Horner EZ Check I or II | 0.00 | UNKNOWN |

Caller Remarks:

TANK FAILED THE TEST.ABOVE GROUND TANK

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SAWYER 1/30/2003–Vought–Tank Test Failure letter sent by Vought by Fax and mail on 1/30/2003.

11/12/2003–Vought–Received affidavit from James Merlo (Bd. of Ed.). Affidavit was for temporary abandonment of one (2000–gallon) fuel oil UST located in a vault on saddles. Tank will remain out of service until funding becomes available for replacement. Contents of tank were removed, tank was thoroughly cleaned, fill line was cemented, oil lines were disconnected and capped and fuel oil tank was stenciled with out of service date. Vought called Merlo to find out extent of fuel release from vault (if any) and phone was repeatedly busy.

1/7/04–Vought–Spill transferred from Vought to Austin.

01/27/04 – Sawyer – Spill transferred from Austin to Sawyer.

07/16/13 – Spill Case is transferred from Leszek Zielinski (PBS Unit) to V. Brevdo (Section B) as per DER Region 2 decision – Tank Test Failure Spill Case. VB

12/26/2014 – V. Brevdo This spill is being closed due to no indication of a current release, no information indicating that there may have been a historical release, and no information that this tank test failure will be an issue in the future. Spill is closed effective 12/26/2014. No spill case closure letter is issued. VB

Map Identification Number 53**EXXON CORP**

332 AMSTERDAM AVENUE

MANHATTAN, NY

Spill Number: 9413181**Close Date: 09/16/1996**

TT–Id: 520A–0098–731

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 1138 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: GASOLINE STATION OR PBS FACILITY

Notifier Type: Responsible Party

Caller Name: SEAN ZHENG

DEC Investigator: SIGONA

Spiller: EXXONMOBIL CORP

Notifier Name:

Caller Agency: EXXON CORP

Contact for more spill info:

Spiller Phone:

Notifier Phone:

Caller Phone: (516) 876–4662

Contact Person Phone:

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/03/1995 | | TANK TEST FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| GASOLINE | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

DURING REMOVAL OF TANK & FOUND CONTAMINATED SOIL

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

1/95 REMOVED 10 USTS, SOILS REMOVED TO BEDROCK.
 5/96 BEDROCK CORING WAS COMPLETED TO ASSESS THE BEDROCK AND THE PRESENCE OF GROUNDWATER/ THE CORING WAS COMPLETED TO 10 FT. INTO THE BEDROCK AND NO GROUNDWATER WAS ENCOUNTERED.

Map Identification Number 54



APRT

141 WEST 73RD STREET
 141 WEST 73RD ST

NEW YORK, NY 10023

Spill Number: 0608521

Close Date: 02/11/2008

TT-Id: 520A-0090-348

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1182 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
 Notifier Type: Other
 Caller Name:
 DEC Investigator: SFRAHMAN

Spiller: DAVID GILCREST – APRT
 Notifier Name:
 Caller Agency:
 Contact for more spill info: DAVID GILCREST

Spiller Phone: (212) 874-0300
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (212) 874-0300

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 10/25/2006 | | TANK TEST FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

TANK IS LEAKING FOUND WHILE REMOVING- 7500 GALLON TANK

DEC Investigator Remarks:

Building is a senior citizens housing apartment. An above ground fuel oil tank was removed from the basement and the contractor discovered oil staining under the tank. They believe there is contamination under the tank location. They have already applied to the City for money to hire a contractor to locate and remove any contamination that may be there. CSL has been sent to: Mr. David Gillcrst Project Find 160 West 71st St - #2F New York, NY 10023 11/14/06 Rahman- RWP from Airtek Environmental tells about removal of contaminated soil from the former tank location. The former 7500 galon tank was partially buried and rested on a shallow bed of soil(6' deep). Above the level of the soil is a second layer of concrete. The UST was set into the upper concrete, was removed in October' 06, small holes were noted in the bottom. 10/19/07 Left a voice messege for Vic Ricchezza(Air Tek) asking status on this site. (SR) 02/11/08 Rec'd report from Airtek Environmental Corp. The UST was rested on concrete slab, which was removed. All soil between two concrete slabs were removed, no soils left for end point sampling. No breaks in the lower concrete slab was found and the standing water level did not decrease before removal. Therefore, no sample taken from the below concrete slab. Disposal manifest were provided. NFA required. SR

Map Identification Number 55



NATIONAL CAR RENTAL SITE

219 WEST 77TH STREET

MANHATTAN, NY

Spill Number: 0310460

Close Date: 01/14/2004

TT-Id: 520A-0098-708

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 1228 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Tank Tester

Caller Name: ANSIL ANTOINE

DEC Investigator: JMMROMMEL

Spiller: VANGUARD CAR RENTAL

Notifier Name: ANSIL ANTOINE

Caller Agency: TANKNOLOGY

Contact for more spill info: HELEN HONG

Spiller Phone:

Notifier Phone: (347) 728-4012

Caller Phone: (347) 728-4012

Contact Person Phone: (202) 508-9504

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 12/10/2003 | | TANK TEST FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|--------|--------------------|--------|----------------------|
| GASOLINE | PETROLEUM | 1.00 | POUNDS | 0.00 | POUNDS | GROUNDWATER |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|------------------|-----------|-----------------------|
| 1 | 2000 | VacuTest | 0.00 | UNKNOWN |

Caller Remarks:

tank test. failed unextinguished. no product lose.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was ROMMEL Sangesland sent a TTF letter to National Car Rental Agent:

Helen Hong Paul, Hastings, Janofsky & Walker LLP 1299 Pennsylvania Ave, N.W. – Tenth Floor Washington D.C. 20004

1/14/04 Reviewed 1/7/04 submittal from Paul, Hastings, Janofsky & Walker LLP who are working for Vanguard Car Rental. Helium test performed on 12/22 to isolate leak. No leak identified. Previous test failed due to ullage ingress via a remote pumping station. The station was isolated, system passed retest. Tank retested on 12/22/03, accepted by PBS Unit. spill closed. Rommel

Map Identification Number 56 AVIS RENT A CAR
 216 W 76TH ST

NEW YORK, NY 10023

Spill Number: 0202743

Close Date: 03/05/2007
 TT-Id: 520A-0098-715

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1275 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|---|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: AVIS RENT A CAR | Spiller Phone: |
| Notifier Type: Tank Tester | Notifier Name: STEVE BROGAN | Notifier Phone: |
| Caller Name: BRIAN BERKLE | Caller Agency: CROMCO | Caller Phone: (610) 278-7203 |
| DEC Investigator: JMKRIMGO | Contact for more spill info: ALVIN PETRO-MIKE PASCOFF | Contact Person Phone: (718) 461-5400 |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 06/14/2002 | | TANK TEST FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 1 | 4000 | Horner EZ Check I or II | 0.00 | FAIL |

Caller Remarks:

THE TANK IS O/S UNTIL A DECISION IS MADE ON HOW TO PROGRESS

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was ROMMEL 12/2/2003 Transferred from Sangesland to Rommel

| | | | | |
|--|--|----------------------|------------------------------|-------------------------------|
| Map Identification Number 57 | APT BLD TTF | MANHATTAN, NY | Spill Number: 1003932 | Close Date: 07/06/2012 |
|  | 101 WEST 72ND ST A/K/A 260 COLUMBUS AVE | | | TT-Id: 520A-0253-025 |

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1311 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: DOMINIC MORDATTO – APT BLD Spiller Phone:
 Notifier Type: Tank Tester Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: Caller Phone:
 DEC Investigator: SMSANGES Contact for more spill info: DOMINIC MORDATTO Contact Person Phone: (914) 774--3838

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 07/08/2010 | | TANK TEST FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #2 FUEL OIL | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | |

Caller Remarks:

fill and vent line are in the ground and shows release although it does not look like loss of product.

DEC Investigator Remarks:

Spill initially reported at 260 Columbus Ave (corner building) PBS 2-360929 was traced back to PBS address – 101 West 72st. Sangesland left voice message with Prop Mgr Arthur Rauzman 212-344-1444

10/26/2011 Sangesland left ANOTHER voice message for Mr. Rauzman

1/19/2012 Sangesland spoke to Mr. Rauzman's supervisor... She promised a return call today... New Contact for the site is Dominic (Chase) 914-774-3838. He has hired John at NY Plumbing (917-440-2403) Old tank is out of service. Temp tanks set up and waiting to switch the building to Natural Gas. Bank is waiting for approval to fill the tank with foam and abandon the tank. Sangesland said I need info on the fill line and vent line.

1/26/2012 Sangesland inspected the basement. No staining on the basement walls. This whole area of Columbus Ave was dug up by the city about 5 years ago. New streets, curbs and sidewalks. Remote fill line was closed prior to this work. Can not identify where the remote fill used to be. No sign of spill, so DEC is closing this spill case out.

Map Identification Number 58

BASEMENT

Spill Number: 1312078

Close Date: 06/12/2014



12 WEST 72ND ST

MANHATTAN, NY

TT-Id: 520A-0297-283

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1555 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Tank Tester
 Caller Name:
 DEC Investigator: HRPATEL

Spiller: AL SALSANO – AL SALSANO
 Notifier Name:
 Caller Agency:
 Contact for more spill info: AL SALSANO

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (917) 327-8851

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 03/26/2014 | | TANK TEST FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | |

Caller Remarks:

10,000 gallon tank.

DEC Investigator Remarks:

04/21/14–Hiralkumar Patel. alternate address: 12–18 West 72nd Street

no other spills found.

PBS #: 2–241415. as per PBS record, the site has one 10,000 gal #2 oil AST on saddles. the tank was installed in Jan. 1952.

1:48 PM:– spoke with Protest front desk. the 10,000 gal tank system failed in dry portion during test on 03/26/14. Protest conducted partial isolation test on 04/07/14. they tested tank, remote fill and vent line together and found leak. Protest suspected leak in remote lines and has submitted work proposal about a week and half ago. Protest technician did not observed any contamination. the tank is in vault under the sidewalk.

2:06 PM:– spoke with Mr. Hinckley, property manager. he has no knowledge about the tank system test.

Oliver Cromwell Owners, Inc.

****property owner**** c/o Tudor Realty Services 250 Park Avenue South New York, NY 10003 Attn.: Thomas Hinckley

****property manager**** PH. (212) 557-3600 email: tomh@tudorrealty.com

2:12 PM:- spoke with Mr. Salsano, co-op board president. he mentioned that they have sealed the remote fill port and Protest will replace the leaking line. Mr. Salsano asked to send letter to his attention.

Oliver Cromwell Owners, Inc.

****property owner**** c/o Al Salsano Co-Op Board President 12 West 72nd Street, Apt. 30A New York, NY 10023 Ph. (212) 813-3016

(917) 327-8851 email: alsalsano@aol.com

2:29 PM:- sent TTF letter to Mr. Salsano. letter emailed to Mr. Salsano.

06/06/14-Hiralkumar Patel. 10:36 AM:- received call from Rene Lewis (917-569-8323). he mentioned that the initial tank test failure was caused by a small leak in flange on fill line. the leak was inside the building. he will replace the leaking portion and will retest the system. he mentioned that report will be submitted by 06/13/14.

06/12/14-Hiralkumar Patel. received fax from Rene. he removed leaking 3 inch flange on fill line and replaced with 3 inch union. the tank system was retested and it passed.

based on available information, case closed. 12:13 PM:- sent spill closure letter to Mr. Salsano. letter emailed to Mr. Salsano.

Map Identification Number 59

BELLECLAIRE HOTEL
250 WEST 77TH STREET

NEW YORK, NY 10024

Spill Number: 0603441

Close Date: 06/01/2007
TT-Id: 520A-0098-743

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 1577 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
Notifier Type: Tank Tester
Caller Name:
DEC Investigator: BKFALVEY

Spiller: MARLIN JOSEPH - HOTEL
Notifier Name:
Caller Agency:
Contact for more spill info: MARLIN JOSEPH

Spiller Phone: (718) 624-4842 ext. 1
Notifier Phone:
Caller Phone:
Contact Person Phone: (718) 624-4842 ext. 1

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
|------------------|---------------------|-------------------|-------------------------|---------|---------------------|---------|----------------------|
| 06/28/2006 | | TANK TEST FAILURE | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 2 | 5000 | Horner EZ Check I or II | 0.00 | UNKNOWN |

Caller Remarks:

PETROLEUM TANKS WILL RETURN TO FIND PROBLEM:

TANK WAS EMPTY DURING TEST

DEC Investigator Remarks:

need to send TTF letter 07/03/06–Hiralkumar Patel. Spoke to Diana at Petroleum. they haven't gone yet for isolation test. she gave me owner's information as: Hotel Belclair (212) 706–4476

tried number for owner, but no response. 07/05/06–Hiralkumar Patel. Left message for manager at hotel.

7/7/06 spoke with Paul Cadenas of Belleclaire Hotel. Petroleum Tanks coming next week to retest. he told me he would call regarding the results. sent TTF letter. bf.

7/7/06 left voice mail message for M. Salamack of Petroleum Tanks to ask for date of test and for results. bf.

5/24/07 bf: Called Mr. Cadenas and left message. Sent 2nd ttf letter to: John Huber Lophijo Realty 19 Dawson Lane Jamesburg, NY 08831

5/30/07 received message from mark Salamack of Petroleum Tank Cleaners. He said he's calling because they were frantic in response to my letter. Soil samples were taken. No work was done lately because the hotel wasn't paying PTC. Also received message from Tara Gowdy of Hotel Belleclair (212)706–4469. She requested a call back. I called her back and she states that she thought the spill was closed. She will make sure that PTC gives DEC what is required (the letter/report). bf

6/1/07 This case is to be combined into Spill 0603176 which is at the same site and is a result of the tank failure. Administratively closed. bf

Map Identification Number 60



BELLECLAIRE HOTEL

250 WEST 77TH ST

MANHATTAN, NY

Spill Number: 0509393

Close Date: 12/07/2005

TT-Id: 520A-0097-826

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1577 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Tank Tester
 Caller Name: CHRIS GORGA
 DEC Investigator: JBVOUGHT

Spiller: CHRIS GORGA - HOTEL

Notifier Name: CHRIS GORGA
 Caller Agency: PETROLEUM TANK CLEANERS
 Contact for more spill info: CHRIS GORGA

Spiller Phone: (646) 772-1404
 Notifier Phone: (646) 772-1404
 Caller Phone: (646) 772-1404
 Contact Person Phone: (646) 772-1404

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 11/04/2005 | | TANK TEST FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| | 4000 | Horner EZ Check I or II | 0.00 | UNKNOWN |

Caller Remarks:

east side tank. above liquid leak.

DEC Investigator Remarks:

11/7/05-Vought-Off-hours duty responder. Vought called Petroleum Tank Cleaners (Chris Gorga) and not sure if tank will be retested as they were subcontracting. West side tank may also need testing. Gorga requested Vought call Ray or Anthony Lara. Vought called PTC and left message for Ray to return call to provide info on owner and further action on UST. Vought received call from Ray and work was for Castle Oil Company (Jim Carey 718-579-3410). Vought called Jim Carey for contact info:

250 West 77th Street NY NY 10024 Attn: Sidney 212-706-4471 fax 212-362-1004

As per Jim, 2000-gallons of #6 fuel oil was delivered on 10/29/05 and Castle was notified that gauge did not record a delivery. Tank was opened and contents were gone as of 11/3/05. Basement was inspected and no odor, no oil was found. Vought ran PBS and contact info is Sidney Zimmer (212-362-7700). Vought called Zimmer and he was skeptical of spill amount lost. TTF letter to be sent to:

Belliclaire Hotel Lophijo Realty 250 West 77th Street New York, NY 10024 Fax: 212-362-1004

Vought sent out TTF letter to Zimmer.

12/06/05-Vought-Received call from and spoke to Paul Cardenas (Hotel Bel Claire 212-706-4476). TTF failed pressure test due to broken vent line that has been replaced. New system test was performed and passed. Missing 2000-gallons was siphoned over to west tank (3000-gallon #6 fuel oil) due to valve left open. Paul will fax in results to DEC.

12/7/05-Vought-Received faxed copy of test results from Hotel BelleClaire (Paul Cardenas). The vent line to this 4000-gallon tank has been replaced and the tank has passed the pressure test. As of the missing 2000-gallons of oil it has been determined that the main supply valve on Tank #1(4000-gallon) capacity was not completely in the closed position when Tank #2 (3000 gallon capacity) was switched over into service causing the product in Tank #1 to pump out with the product in Tank #2. There has been no evidence of any petroleum release or any damage to Tank #1 itself. Vought called Paul Cardenas and faxed him copy of closed spill report. Spill closed by Vought.

Map Identification Number 61



TTF

233 WEST 77TH STREET

NYC, NY

Spill Number: 1305857

Close Date: 07/21/2015

TT-Id: 520A-0289-137

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1586 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Other
 Caller Name:
 DEC Investigator: SXMAHAT

Spiller: UNKNOWN
 Notifier Name:
 Caller Agency:
 Contact for more spill info: CHRIS STEELE

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (718) 624-4842

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 09/04/2013 | | TANK TEST FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | |

 Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks:

9/6/13– ttf letter sent

4/9/15: Mahat DEC Mahat received a call from Donna (ABC Tank) inquiring about the spill case manager. Spill case is associated a above ground tank in the facility. There is no correpeondace fulfilling the letter that was sent on 9/6/13.

However, the facility also has a 7,500 gallon UST (non–spill related tank). ABC has been retained to abandoned the tank in place. Technical went down to the tank in order to collect three samples. Since the tank is sitting on tht water table, the tank was flooded with the water. ABC tank took the GW sample and it came out to be clean. ABC tank is preparing a tank abandon report to DEC PM attention for a review.

Also, Below is the point of contact for TTF for abaove ground tank:

Stahl Stahl LLC Jermy : 212.826.5487 John : 212.826.5486

4/9/15: Mahat Spill case has been reassigned to DEC Mahat as discussion with DEC Demeo.

Email confirmation was received that the tank has been repaired and retested with passing result. John, I'm not in the office right now, I know that the tank was tested and failed because of a defective vent pipe, the vent was replaced same day and tank was retested and passed. Second test should have cancelled out first. Let me talk to my installation Dept. And see why it didn't. Sounds like a paperwork problem here.

Kevin Amass Service Manager National Mechanical Services Inc. P–201–488–5151 X–102 F–201–488–5140 C–201–206–5051

DEC is waiting for a spill case closure report.

6/5/15: Mahat DEC Mahat has sent an email out to Mr. Amsaa requesting for a closure reprot for the spill case.

7/21/15: Mahat DEC Mahat received an email confirmation from Kevin Amass that the repair has been performed and tank passed the pressure test. Email :

John, I'm not in the office right now, I know that the tank was tested and failed because of a defective vent pipe, the vent was replaced same day and tank was retested and passed. Second test should have cancelled out first. Let me talk to my installation Dept. And see why it didn't. Sounds like a paperwork problem here.

Kevin Amass Service Manager National Mechanical Services Inc. P–201–488–5151 X–102 F–201–488–5140 C–201–206–5051

Based on the email confirmation, the Department does not warrant nay further investigation on the site. Spill case will be closed in DEC Spill Database.

Map Identification Number 62 **CONDO 241 W 75TH ST**
 241 W.75TH ST

NEW YORK, NY

Spill Number: 9108242

Close Date: 12/06/1991
 TT-Id: 520A-0098-724

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1647 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Tank Tester
 Caller Name: S LORIFICE
 DEC Investigator: MCTIBBE

Spiller:
 Notifier Name:
 Caller Agency: TANK TEST INC
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone: (718) 789-3770
 Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 11/01/1991 | 12/06/1991 | TANK TEST FAILURE | UNKNOWN | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|--------|--------------------|--------|----------------------|
| #2 FUEL OIL | PETROLEUM | -1.00 | POUNDS | 0.00 | POUNDS | SOIL |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|------------------|-----------|-----------------------|
| | | Unknown | 0.00 | UNKNOWN |

Caller Remarks:

E I & R REFER TO SPILL # 9108119, SP91283

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIBBE

Map Identification Number 63 **APARTMENT BUILDING – TTF**
 166 WEST 72ND STREET

MANHATTAN, NY

Spill Number: 1215632

Close Date: 11/24/2015
 TT-Id: 520A-1000-803

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1693 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Other
 Caller Name:
 DEC Investigator: TJDMEEO

Spiller: PROPERTY OWNER
 Notifier Name:
 Caller Agency:
 Contact for more spill info: ROBERT HILL

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: 7188557272

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 02/15/2013 | | TANK TEST FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | |

Caller Remarks:

Tank test failure, no known loss of product. 3000G tank

DEC Investigator Remarks:

2/15/13–Vought–Called and spoke to Rob Hill (Fax:718–855–7244)and they asked Riteway to pump and clean tank and they did tank test after the tank was pumped and cleaned. They installed temporary tanks and will isolate and retest. No spills noted in basement. Letter should go to:

3/27/13 AFrischeisen intern TTF letter sent.

4/02/13 AFrischeisen intern Telephone call with Rob Hill from Riteway for update. Rob said they will begin removal of existing tank in the middle of next week 4/ – 4/12, install new tank following removal, retest, etc.

11/24/15 TJD File review. Requested closure documentation from Riteway Tank on 11/9/15. The report is summarized below:

A tank test was performed on the above referenced property which failed on February 15, 2013. The NYSDEC was notified and spill# 1215632 was obtained. The tank was immediately evacuated, cleaned and temp tanks were installed. The existing 3,000 gallon AST

was removed (please see enclosed FDNY Affidavit). After the tank was removed, room debris was drummed up and the floor was leveled. 12 x 55 gallon drums (please see enclosed manifest) of debris were generated from the tank removal and the preparation of the floor for a new concrete pad. The room was clean and free from contamination. A new concrete pad was poured. A new 3,000 gallon AST was installed with new pipe work. Temporary tanks were pumped out, cleaned and removed. Based upon the above information – no further action is required. All received documentation has been uploaded to DECDOCS. Spill closed.

Map Identification Number 64

176 WEST 87TH STREET
176 WEST 87TH STREET



MANHATTAN, NY

Spill Number: 0611481

Close Date: 04/02/2008
TT-Id: 520A-0101-135

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 1824 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
Notifier Type: Other
Caller Name:
DEC Investigator: BKFALVEY

Spiller: CHRIS GORGA
Notifier Name:
Caller Agency:
Contact for more spill info: CHRIS GORGA

Spiller Phone: (718) 624-4842 ext. 1
Notifier Phone:
Caller Phone:
Contact Person Phone: (718) 624-4842 ext. 1

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 01/16/2007 | | TANK TEST FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 1 | 5000 | Horner EZ Check I or II | 0.00 | UNKNOWN |

Caller Remarks:

ABOVE LIQUID LEAK'

DEC Investigator Remarks:

1/23/07 sent ttf letter to: Michell Schamroth 176 West 87th Street Owners Corp. 176 West 87th Street New york, NY 10024

bf

3/5/07 Received tank test results for tank. Tank is AST in contact with soil. More info needed. Called Jack Terebelo of Halstead Management (212)508-7645 and left message that more information is needed. Also, tank may not be registered. Data base has 10K tank for #6 fuel at this location. PBS#2-214396. Tank test results state that it is a 5K tank for #2 fuel. bf

3/6/07 On 3/5/07 at 5:15 pm received message from Mr. Terebelo. (212)508-7391. Returned call and left message to call me back. bf

3/23/07 Received letter from Jack Terebelo of Halstead Management. Tank failed test on 1/16/07. Tank passed retest on 1/25/07. An opening was found at the top of the tank that was likely not plugged when the petrometer was changed in 2005. Expandable plug was inserted. He sent PTC numerous requests for a letter and they have not, so he is submitting the letter. Tank test results, invoice, and confirmation that the tank is 5K were enclosed. bf

2/28/08 Called Joe Ostrowski of Petroleum Tank Cleaners. Two old lines at manhole cover were never sealed. After they sealed them, the tank passed tightness test. Will talk to Mark Salamack tomorrow re: letter for DEC closure. bf

4/1/08 Sent fax to M. Salamack requesting response to ttf letter. bf

4/2/08 Received fax from M. Salamack of PTC. Gauge line was broken. Line repaired and tank passed test on 1/25/07. Passing test results attached. NFA. bf

Map Identification Number 65



TTF - APARTMENT COMPLEX

465 WEST END AVENUE

NEW YORK, NY

Spill Number: 1403318

Close Date: 11/04/2014

TT-Id: 520A-0300-649

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2005 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Other
 Caller Name:
 DEC Investigator: HRPATEL

Spiller: A1 CROWN CORP
 Notifier Name:
 Caller Agency:
 Contact for more spill info: ROB HILL

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: 7188557272

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 06/26/2014 | | TANK TEST FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | |

Caller Remarks:

Tank was empty upon failure. No material spilled as per caller.

DEC Investigator Remarks:

06/27/14–Hiralkumar Patel. alternate address: 301 West 82nd Street

no other spills found.

PBS #: 2–201685. as per PBS record, the site has one 5,000 gal #6 oil UST, installed in Jan. 1995.

as per NYC DOB record, a permit was approved on 05/13/14 to change fuel grade from #6 to #2.

2:27 PM:– spoke with Phil. he was hired by Riteway tank to conduct tightness test on recently cleaned #6 fuel oil tank system. Phil mentioned that no pressure built up during the test.

2:44 PM:– spoke with Rob at Riteway. they cleaned out tank yesterday as part of grade conversion.

3:20 PM:– left message for Mr. Ginsberg.

465 WEA Owners Corp.

property owner c/o Orsid Realty Corp.

property management 1740 Broadway, 2nd Floor New York, NY 10019 Attn.: Harvey Ginsberg

property manager PH. (212) 247–2603

(212) 484–3739

(212) 484–3720 Fax (212) 586–4524 email: hginsberg@orsidr.com

3:35 PM:– sent TTF to Mr. Ginsberg, requiring report submission by the end of 07/31/14. letter emailed to Mr. Ginsberg and Rob.

08/25/14–Hiralkumar Patel. 4:23 PM:– sent email to Mr. Ginsberg inquiring about the report. email copied to Rob.

08/27/14–Hiralkumar Patel. 10:51 AM:– received call from Dave. currently, they are cleaning the tank and will remove it soon. he will send email with more update and schedule. 12:16 PM:– received email from Dave. they did an isolation test and found leak in

dry potion. they are scarping and washing the tank today. tank removal will begin tommorrow.

09/26/14–Hiralkumar Patel. 2:47 PM:– spoke with Dave. they removed the tank and slightly contaminated vault material. after removing the tank, the floor was found in good condition and no signs of spill noted underneath the tank. asked Dave to submit closure report.

11/03/14–Hiralkumar Patel. 11:04 AM:– spoke with Dave and asked him to submit closure report. 3:07 PM:– received email from Dave including closure letter. the letter included information about tank’s removal and condition of floor underneath the tank (which was found sound). no contamination was observed underneath the tank. the letter does not include information about investigation along the piping. as per the tank removal affidavit, the fill line was cemented. the vent, suction and return lines were cut and capped or disconnected and removed from the premises.

11/04/14–Hiralkumar Patel. 8:04 AM:– sent email to Dave and asked him to submit documents related to investigation along the piping. email copied to Rob and Mr. Ginsberg. 10:17 AM:– received email from Dave. he mentioned that during isolation test, a leak was found in elbow on fill line coming off the top of the tank. all the piping associated with the system was aboveground.

based on available information, case closed. 10:34 AM:– sent spill closure letter to Ms. Ginsberg. letter emailed to Mr. Ginsberg and Dave.

Map Identification Number 66



ABOVE GROUND

473 WEST END AVE

NEW YORK CITY, NY

Spill Number: 1206692

Close Date: 08/29/2013

TT–Id: 520A–0278–043

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2033 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Other
 Caller Name:
 DEC Investigator: HRPATEL

Spiller: CHRISTPHOR STEELE – UNKNOWN
 Notifier Name:
 Caller Agency:
 Contact for more spill info: CHRISTPHOR STEELE

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (718) 624–4842

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 10/05/2012 | | TANK TEST FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | |

Caller Remarks:

failed tank test

DEC Investigator Remarks:

10/09/12–Hiralkumar Patel. alternate addresses: 473–475 West End Ave, 300–308 W 83rd St PBS #: 2–266698. as per PBS record, the site has one 5,000 gal #6 oil AST in contact with soil. tank was installed on 02/04/1972.

no other spills found.

10:53 AM:– spoke with Mark at PTC. Mark mentioned that the site has one 5,000 gal AST in basement room. he doesn't know whether tank sitting on floor or on saddles. Chris was not in office. PTC was sub–contracted by Gee Cee Mechanical.

Vinny Col Gee Cee Mechanical Ph. (718) 258–9800 email: betternrg@aol.com

11:12 AM:– spoke with Vinny at Gee Cee. he mentioned that consulting firm hired them as part of boiler replacement project and asked for tank test. he asked to contact Earl Kirn, property manager.

11:15 AM:– spoke with Mr. Kirn. he mentioned that they are converting from #6 to #2 oil. they have cleaned out the tank and filled with #2 oil. Mr. Kirn mentioned that the tank was tested prior to filling with #2 oil. informed him that as tank system failed the test, the department required immediate action to stop any petroleum release from the system. asked him to either perform isolation test (and confirm that tank/supply/return lines are tight) or pump out the tank, by the end of tomorrow.

473 Owners Corp.

property owner c/o Midboro Management Inc.

management company 148 W 37th Street, 8th Floor New York, NY 10018 Attn.: Earl Kirn

property manager Ph. (212) 877–8500 Ext. 220 email: ekirn@midboro.com

11:20 AM:– left message for Vinny. 11:34 AM:– received call from Vinny. informed him about discussion with Mr. Kirn. 12:58 PM:– sent TTF letter to Mr. Kirn. asked him to submit report by 11/14/12. letter emailed to Mr. Kirn and Vinny.

10/16/12–Hiralkumar Patel. received message from Mark (at 12:22 PM on 10/15/12) from PTC. he mentioned that during isolation process, they found old tell–tale line connected to the tank. after disconnecting the tell–tale line, the remaining tank system passed the test. 10:09 AM:– spoke with Mark. asked him to submit result of tank system test. also asked him to investigate at the other end of the tell–tale line, as there might be contamination if tank overfilled in past. Mark mentioned that tank is wrapped in concrete. 10:14 AM:– spoke with Mr. Kirn. informed him about findings of tell–tale line and asked him to investigate at the other end of the tell–tale line. he will talk to contractor.

12/10/12–Hiralkumar Patel. 11:18 AM:– spoke with Mark. he mentioned that no further work is done. 11:24 AM:– spoke with Vinny.

he mentioned that due to storm, no work done on tank. currently, the building is using temporary boiler unit (with temporary day tank) as they are in process of replacing the boiler. 11:28 AM:– left message for Mr. Kirn.

01/07/13–Hiralkumar Patel. 11:36 AM:– left message for Mr. Kirn and asked to return call by the end of 01/09/13 to avoid enforcement.

01/08/13–Hiralkumar Patel. received fax from Mark from PTC including report. Mark mentioned that an old tell tale line was attached to the tank and terminated under the ground. old tell tale line was disconnected and the tank system tested tight.

10:54 AM:– left message for Mark. 10:56 AM:– received call from Mark. asked him about investigation at other end of tell tale line. he mentioned that no work has been done about that. 10:58 AM:– left message for Mr. Kirn and informed him that the department requires investigation at the other end of tell tale line. 12:31 PM:– received call from Mr. Kirn. discussed about investigation at the other end of tell tale line. he has spoke with engineer/contractor who are replacing boiler at the site and old tell tale line will be exposed in couple of days. asked him to submit results by the end of 01/18/13.

04/11/13–Hiralkumar Patel. 10:20 AM:– visited site. inspected tank room. site has aboveground tank wrapped in concrete. lines to and from tank are running aboveground except fill line that runs under the sidewalk. on–site person mentioned that a new set of fill/vent lines were installed after tank test failure in Oct. 2012. observed old fill/vent lines inside building. 10:39 AM:– left message for Mr. Kirn.

Kol

building super Ph. (646) 241–8010

3:17 PM:– spoke with Mark. he mentioned that proposal for tell–tale line investigation was sent to Gee Cee Mechanical but no response received yet. 3:20 PM:– spoke with John at Gee Cee Mechanical. he doesn't know anything and will ask Vinny to call back.

04/12/13–Hiralkumar Patel. 11:18 AM:– spoke with Kol, building super. he doesn't know anything about old tell–tale line. 11:20 AM:– spoke with Mr. Kirn. he mentioned that no investigation has done yet for any spill at other end of tell–tale line, which terminates in ground. asked him to provide work update by the end of 04/19/13.

06/24/13–Hirakumar Patel. 2:05 PM:– left message for Ms. Florence, new property manager.

Michele Florence Midboro Management Inc. Ph. (212) 877–8500 Ext. 206 Fax (212) 875–0808 email: mflorence@midboro.com

2:07 PM:– sent email to Ms. Florence and asked to call back. 2:35 PM:– received call from Ms. Florence. informed her that the department requires investigation at the other end of tell–tale line. she will contact contractor and will call back.

07/19/13–Hiralkumar Patel. 1:26 PM:– received email from Ms. Florence. she mentioned that building board has approved further investigation. they have sent deposit check to PTC and PTC will file permit application.

08/01/13–Hiralkumar Patel. 11:17 AM:– spoke with Mark at PTC. he got ok from management for further investigation. to continue work, they need NYC DOT permit and Mark is waiting for signed letter from management to include in permit application. 11:21 AM:– spoke with Ms. Florence. she will follow up with permit application requirements.

08/14/13–Hiralkumar Patel. 3:58 PM:– received email from Ms. Florence. they received permit and further investigation is scheduled for 08/21/13.

08/26/13–Hiralkumar Patel. 10:04 AM:– received message from Mark. 1:25 PM:– spoke with Mark. they exposed the old tale–tell line and found some contamination. they removed 4 drums of contamination. there is still some contamination in ground. asked Mark to take some pictures of excavation area and endpoint soil samples.

08/28/13–Hiralkumar Patel. 6:40 AM:– received email from Mark including three pics. he found coal dust and cinders while excavating near fill port. he inquired about excavation requirement. 1:31 PM:– left message for Mark. 2:46 PM:– received call from Mark. they found tale–tell line near fill port area. scheduled a site inspection at 9:30 AM tomorrow.

08/29/13–Hiralkumar Patel. 9:30 AM:– visited site. met Mark. inspected excavation around fill port, where tale–tell line ended. found end of tale–tell line sealed with cement. found backfill material in excavation, in top layer. no petroleum odors noted in backfill material or soil around fill port.

based on observations during the site visit, case closed. 12:56 PM:– spoke with Ms. Florence and informed her about case closure.

Map Identification Number 67



RESIDENTS

307 WEST 79 STRET

NEW YORK, NY

Spill Number: 1407368

Close Date: 11/24/2014

TT–Id: 520A–0305–036

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2063 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: 307 W 79TH STREET
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Other
 Caller Name:
 DEC Investigator: SXMAHAT

Spiller: DANIEL – PROPERTY OWNER
 Notifier Name:
 Caller Agency:
 Contact for more spill info: DANIEL

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (917) 257–3672

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 10/15/2014 | | TANK TEST FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | |

Caller Remarks:

caller reporting a 5,000 gallon tank failed tank test, tank will be replaced

DEC Investigator Remarks:

10/17/14: Mahat A closure letter was sent out to the property owner (PBS #
). The PBS registration is expired on 2007. A letter including TTF and PBS Rgistration is sent out to the following address :

MICHAEL EDELSTEIN 307 WEST 79TH STREET

October 17, 2014 New York, NY 10024

Re: Spill Case: 1407368 307 West 79th Street, New York

DEC is waiting for a report from the property owner.

11/24/14: Mahat Fax: DEC Mahat received a fax from Mr. (Gry Greene @ Imperial Realty) including a closure request and TTF result. The leaking hole on the tank has been repaired and the tank passed the TT. Report has been uploaded on D2. Based on the report provided, the Department does not need any further investigation. Hence, the spill case will be closed in the database.

Map Identification Number 68

52 RIVERSIDE DR
 52 RIVERSIDE DR

NYC, NY

Spill Number: 9106109

Close Date: 12/05/1991
 TT-Id: 520A-0091-846

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2291 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Responsible Party
 Caller Name: MITCH GELBERT
 DEC Investigator: MCTIBBE

Spiller:
 Notifier Name:
 Caller Agency: BECKER, RUBIN & ASSOC
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone: (212) 580-2100
 Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 09/06/1991 | 12/05/1991 | TANK TEST FAILURE | UNKNOWN | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| PCB OIL | PETROLEUM | 75.00 | GALLONS | 0.00 | GALLONS | SEWER |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|------------------|-----------|-----------------------|
| | | Unknown | 0.00 | UNKNOWN |

Caller Remarks:

SPILLAGE ON CONCRETE IN BASEMENT & SOME TO SUMP. A L EASTMOND TO DO CLEANUP 212-378-3000. EMPTIED 5K TANK. WILL REPAIR.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIBBE

Map Identification Number 69



RESIDENTS TTF
277 WEST END AVE

NEW YORK, NY

Spill Number: 1403485

Close Date: 07/02/2015
TT-Id: 520A-0300-653

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (3)
Approximate distance from property: 2299 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
Notifier Type: Other
Caller Name:
DEC Investigator: vszhune

Spiller: ROB HILL - NONE
Notifier Name:
Caller Agency:
Contact for more spill info: ROB HILL

Spiller Phone:
Notifier Phone:
Caller Phone:
Contact Person Phone: (718) 855-7272

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 07/01/2014 | | TANK TEST FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | |

Caller Remarks:

5,000 gallon tank failed tank test, no spill of material. tank is empty

DEC Investigator Remarks:

4/13/15–Riteway emailed the spill closure report. The letter stated that In July of 2014, Riteway Maintenance Corp. was contacted by Abilene Inc.to perform a tank cleaning and tank test on 1 x 5,000 gallon tank for a conversion. After the cleaning of the tank, a tank tightness test was performed on the tank and failed.

The tank failed with a dry portion ullage leak. there was no contamination present. As part of the remedy to the tank test failure, the property re–placed the entire bottom of the tank, installed new steel saddles and the new 2 vent.

The tank is scheduled to be retested next week. Riteway will submit the test results to the NYSDEC as soon as it is completed.

5/27/15–Riteway emailed the passed results of the tank tightness test. Spill Closed.

Map Identification Number 70 **310 WEST 86TH ST** **Spill Number: 0701980** **Close Date: 08/29/2007**
 310– 320 WEST 86TH STREET NEW YORK, NY TT–Id: 520A–0101–343

MAP LOCATION INFORMATION ADDRESS CHANGE INFORMATION
 Site location mapped by: PARCEL MAPPING (1) Revised street: 314 W 86TH ST
 Approximate distance from property: 2506 feet to the NNW Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER Spiller: MARLIN JOSEPH Spiller Phone: (718) 624–4842 ext. 1
 Notifier Type: Tank Tester Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: Caller Phone:
 DEC Investigator: bkfalvey Contact for more spill info: MARLIN JOSEPH Contact Person Phone: (718) 624–4842 ext. 1

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 05/17/2007 | | TANK TEST FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #4 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 1 | 7500 | Horner EZ Check I or II | 0.00 | UNKNOWN |

Caller Remarks:

ABOVE LIQUID LEAK

DEC Investigator Remarks:

5/23/07 bf: Sent ttf letter to: Doug Weinstein Royal Summit Owners Corp. 310 West 86th St., New York, NY 10024

8/29/07 On 8/27/07, received letter from Mark Salamack of Petroleum Tank Cleaners. Tank failure was due to a fill line failure. Fill line was installed inside an old coal chute and no contamination was found other than the product that leaked down onto the floor. Fill line was replaced. Tank was retested and passed. Contamination on the floor and wall was cleaned up. Obtained 4 soil samples from floor of tank room. No excessive contamination found. NFA. bf



CLOSED STATUS UNKNOWN CAUSE SPILLS AND OTHER CAUSE SPILLS IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identification Number 71 **INTERSECTION** **Spill Number: 0904587** **Close Date: 07/24/2009**
 W. 79TH ST. & COLUMBUS AVE. MANHATTAN, NY TT-Id: 520A-0229-392

MAP LOCATION INFORMATION
 Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 50 feet to the W*

ADDRESS CHANGE INFORMATION
 Revised street: W. 79TH ST. / COLUMBUS AVE.
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: MICHAEL WORDEN – UNK Spiller Phone:
 Notifier Type: Local Agency Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: Caller Phone:
 DEC Investigator: smsanges Contact for more spill info: MICHAEL WORDEN Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 07/20/2009 | | UNKNOWN | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| ANTIFREEZE | OTHER | 10.00 | GALLONS | 0.00 | GALLONS | |

Caller Remarks:
 DEP Hazmat reporting found spill of antifreeze at intersection, Sanitation en route for cleanup.

DEC Investigator Remarks:
 minor street spill of antifreeze – all cleaned by sanitation.

Map Identification Number 72 **204936; NE W 77 ST COLUMBUS AV**
 NE W 77 ST COLUMBUS AV

Spill Number: 0890009

Close Date: 03/15/2007
 TT-Id: 520A-0220-200

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 79 feet to the SW*

ADDRESS CHANGE INFORMATION

Revised street: COLUMBUS AVE / W 77TH ST
 Revised zip code: 10024

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Responsible Party
 Caller Name:
 DEC Investigator: Unassigned

Spiller: ERT DESK – CON EDISON
 Notifier Name:
 Caller Agency:
 Contact for more spill info: ERT DESK

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 03/15/2007 | | UNKNOWN | | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIELECTRIC FLUID | PETROLEUM | 0.04 | GALLONS | 0.00 | GALLONS | UTILITY |

Caller Remarks:

M51919 – NE W 77 ST COLUMBUS AV --- INSULATUM Closed: Agency Approval Not Required

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 73 **51 WEST 81ST ST**
 51 WEST 81ST ST

NEW YORK, NY

Spill Number: 9612844

Close Date: 12/17/2004
 TT-Id: 520A-0092-392

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 157 feet to the NNE*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|--|--------------------------------------|
| Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Tank Tester | Notifier Name: PATRICK – | Notifier Phone: (212) 595-0446 |
| Caller Name: BOB DECK | Caller Agency: PETROLEUM TANK CLEANERS | Caller Phone: (718) 624-4842 |
| DEC Investigator: JMKRIMGO | Contact for more spill info: PATRICK CLARK | Contact Person Phone: (212) 595-0446 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/29/1997 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

MR CLARK DISCOVERED OIL IN HIS SUMP PIT AND SMELL OF OIL. PETROLEUM TANK CLEANERS UMPED OUT PIT AND ARE REQUESTING DEC CONTACT.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was M TIBBE

5/12/04 –AUSTIN – SPOKE WITH SARA, THE MANAGING AGENT FOR THIS LOCATION (212-319-5000). SHE WANTED TO KNOW HOW TO REQUEST CLOSURE, SO I TOLD HER TO SEND A REPORT IN DESCRIBING THE CLEAN UP, AND DOCUMENTATION THEREOF, AND PHOTOS SHOWING THE RESULTS. SHE WILL FOLLOW UP AND SEND INFO TO ME. – END

12/17/04. J.Krimgold reviewed documentation submitted by Rudd Realty (212-319-5000) in their letter dated December 3, 2004. According to the letter, oil in sump pit originated from the leaky aboveground fill line located right above sump pit. All was cleaned up. Pipe was replaced. Pix and Manifests included. NFA letter.

| | | | |
|--|--|------------------------------|-------------------------------|
| Map Identification Number 74 | ONE GALLON FUEL OIL SPILL ON CONCRETE | Spill Number: 1510616 | Close Date: 02/24/2016 |
|  | 101 WEST 78TH STREET | NEW YORK, NY | TT-Id: 520A-0313-273 |

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 164 feet to the WSW*

ADDRESS CHANGE INFORMATION

Revised street: 101 W 78TH ST
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Other
 Caller Name:
 DEC Investigator: JBVOUGHT

Spiller: 101 W 78TH LLC
 Notifier Name:
 Caller Agency:
 Contact for more spill info: MARK RISHE

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: 212 634 8927

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/01/2015 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #4 FUEL OIL | PETROLEUM | 1.00 | GALLONS | 1.00 | GALLONS | IMPERVIOUS SURFACE |

Caller Remarks:

Caller advised older spill under 1 gal spilled onto concrete. Unknown contributing factor. Clean up is complete. Caller was advised by Jeff Vought to call in the spill.

DEC Investigator Remarks:

2/23/16–Vought–Received call from and spoke to Mark Rishe around time of spill. Rishe provided spill specifics and spill did not meet five Spills Notification requirements. Rishe however wanted DEC documentation that a spill report was not required and Vought noted that the only method of documenting was via the Spills Database and hence a Spill needed to be called in IF they wanted a written response. Vought received email dated 2/1/16 from:

Marc Rishe First Service Residential 622 Third Avenue 15th Floor New York, NY 10017 Email:marc.rishe@fsresidential.com Ph:(212)634–8927

Email noted Mr. Vought, thank you for speaking with me. As discussed, I reported a spill at the above location to the hotline. In October, there was a small amount of oil noticed on the concrete by the oil tank. A clean up firm (documents attached) was dispatched to clean and degrease the concrete where the oil was located. The oil was not near nor did it come into contact with any sewer drain on the premises. Please let me know if you have any further questions.

2/24/16–Vought–Added Riteway invoice and Approved Oil letter attached to email above to D2 in one document and reviewed:

Riteway Tank Maintenance Invoice – 10/30/15. Customer was Approved and invoice noted clean tank room of debris and wiped down tank/clean up old spill

Approved Oil Company (Eric Sutphen) letter to Mr. Robert Swiderski–11/9/15. Letter noted On October 29th, 2015, I retained the services of Riteway Tank Maintenance as per your request to inspect the tank room at 101 west 78th Street in New York City. The tank room was said to have less than a gallon of oil on the floor that accumulated from miscellaneous piping work previously completed and some debris that had to be removed as well. Riteway cleaned the room and properly and degreased the room as well to

ensure it was oil and odor-free.

Spill closed by Vought due to minimal spill on concrete and no impact to soil, groundwater, drains. Spill closure letter sent to Marc Rishe via email and via US Mail at address above. Vought also added closure letter to D2.

Map Identification Number 75

SERVICE BOX 4414

Spill Number: 0401022

Close Date: 07/20/2004



35 WEST 81ST ST

MANHATTAN, NY

TT-Id: 520A-0091-517

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 172 feet to the NE*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|----------------------------|--|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: BILL MURPHY – SERVICE BOX 4414 | Spiller Phone: (212) 580-6763 |
| Notifier Type: Other | Notifier Name: BILL MURPHY | Notifier Phone: (212) 580-6763 |
| Caller Name: BILL MURPHY | Caller Agency: CONED | Caller Phone: (212) 580-6763 |
| DEC Investigator: JHOCONNE | Contact for more spill info: BILL MURPHY | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 04/29/2004 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 3.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

about 3 g gallons of fuel was spilled into about 20 gallons of water. took samples pcb,id,and flashpoint.clean up pending test results con ed reference# – 153134

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL e2mis no. 153134:

Approx. 3 gal. of fuel oil and 20 gals of water in sb 14414. Source and cause of spill is unknown. Liquid Samples will be taken for pcb, id, and flash point from the spill.

Lab Sequence Number: 04-03262-001: TOTAL PCB 2 ppm

Lab Sequence Number: 04-03263-001: Analysis indicates the presence of a substance similar to a light fuel oil.

4/29/04 21:28 Received a change in lab results, Notice of Change of Sample Matrix for PCB: Sample ID 04-03262-00, Lab Sequence Number: 04-03262-001: TOTAL PCB: 2 ppm NOTE: The chain-of-custody indicated the sample matrix as a LIQUID. Analysis determined the presence of oil in the sample and the sample was analyzed as an OIL.

Update- R.Saladino,620, @ 0700hrs. Flash Point result > 140 Deg F. Reported on LSN- 04-03262-002.

UPDATE: 04/30/ Pete Mulholland #18565 ogs reported that cleanup was completed at 13:00 hrs. Source of spill: Unknown, double washed with slix, removed one gal of oil, 150 gal of water with tank truck, removed tag #28761, removed 3 bag of ppe & debris from service box.

Map Identification Number 76 **118 W 79TH ST/MANHATTAN** **Spill Number: 8905449** **Close Date: 09/02/1989**
 118 WEST 79TH STREET NEW YORK CITY, NY TT-Id: 520A-0091-721

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 262 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|---------------------------------|------------------------------|------------------------------|
| Source of Spill: UNKNOWN | Spiller: | Spiller Phone: |
| Notifier Type: Affected Persons | Notifier Name: | Notifier Phone: |
| Caller Name: MARGARET LOKE | Caller Agency: CITIZEN | Caller Phone: (212) 874-7752 |
| DEC Investigator: SIGONA | Contact for more spill info: | Contact Person Phone: |

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 09/02/1989 | 09/02/1989 | UNKNOWN | UNKNOWN | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|--------------------|------------------|---------|--------------------|---------|----------------------|
| ASBESTOS | HAZARDOUS MATERIAL | -1.00 | UNKNOWN | 0.00 | UNKNOWN | SOIL |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 77



GURBUZ RESIDENCE

101 WEST 81ST ST APT 103

NEW YORK, NY

Spill Number: 9614218

Close Date: 10/31/2003

TT-Id: 520A-0097-832

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 293 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: 101 W 81ST ST
 Revised zip code: 10024

Source of Spill: PRIVATE DWELLING
 Notifier Type: Affected Persons
 Caller Name: EGE GURBUZ
 DEC Investigator: JMKRIMGO

Spiller: UNKNOWN
 Notifier Name: EGE GURBUZ
 Caller Agency: CITIZEN
 Contact for more spill info: ABOVE

Spiller Phone:
 Notifier Phone: (212) 769-8929
 Caller Phone: (212) 769-8929
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Unable or Unwilling RP - DEC Field Response - DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/06/1997 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | AIR |

Caller Remarks:

CALLER SMELLING OIL TYPE FUMES FOR APROX 2 MONTHS ON AND OFF NOW ONLY IN BEDROOM
 OCCASIONALLY GETS HEADACHES AND FEELS SICK REQUEST CALLBACK TONIGHT BLDG SUPER GAVE HER THE RUN-AROUND

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was KRIMGOLD MULQUEENM INSPECTED AND FOUND DEFINITE PETROLEUM ODOR IN RESIDENCE. BAD ODOR COMING FROM LOWER BEDROOM CLOSET UPON INSPECTION ON 3/06/97. RESIDENT HAS HAD PROBLEM SINCE MOVING IN, APPROX. 2 MONTHS AGO. NO EVIDENCE OF STAINING. FILL PIPES AND VENT PIPES ADJACENT TO RESIDENT. CONTACT IS:

BUILDING MANAGER: 718 229-2878

212 362-5108

PROBLEM IS COMING FROM SUBSURFACE PLUME FROM NYPD, AND IS BEING HANDLED BY DGS MONITOR.

Map Identification Number 78  **SPILL NUMBER 0401041** **Spill Number: 0401041** **Close Date: 04/29/2004**
 32 WEST 82ND ST MANHATTAN, NY TT-Id: 520A-0091-518

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 327 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: PASCAL,NICK Spiller Phone: (201) 489-5100
 Notifier Type: Other Notifier Name: MALLORY GILMORE Notifier Phone: (212) 689-1520
 Caller Name: MALLORY GILMORE Caller Agency: DEP Caller Phone: (212) 689-1520
 DEC Investigator: SMSANGES Contact for more spill info: PASCAL,NICK Contact Person Phone: (201) 489-5100

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 04/29/2004 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|--------|--------------------|--------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 0 | POUNDS | 0 | POUNDS | SOIL |

Caller Remarks:
 AN UNKNOWN AMOUNT OF PETROLEUM WAS SPILLED. SPILL HASNT BEEN CLEANED UP

DEC Investigator Remarks:
 Prior to Sept, 2004 data translation this spill Lead_DEC Field was SANGESLAND duplicate to spill # 0401035

Map Identification Number 79  **SPILL NUMBER 0313030** **Spill Number: 0313030** **Close Date: 03/05/2004**
 31 WEST 76TH STREET NEW YORK, NY TT-Id: 520A-0091-497

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 338 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|--|---|
| Source of Spill: PRIVATE DWELLING | Spiller: | Spiller Phone: |
| Notifier Type: Citizen | Notifier Name: GEORGE MILLER | Notifier Phone: (212) 455-7065 |
| Caller Name: GEORGE MILLER | Caller Agency: | Caller Phone: (212) 455-7065 |
| DEC Investigator: JMKRIMGO | Contact for more spill info: GEORGE MILLER | Contact Person Phone: (212) 455-7065 ext. V |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/26/2004 | | OTHER | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | AIR |

Caller Remarks:

CALLER STATES HE BELIEVES THE ODOR IS COMING FROM HIS NIEGHBORS HOUSE: IF YOU CALL OR GO TO HIS HOME YOU CAN SMELL IT: HAS BEEN AROUND 7-10 DAYS, OIL CO. CHECKED OUT CON ED CAME , BUT STILL STRONG ODOR:

NIGHT TIME 212-580-6065

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was KRIMGOLD 2/27/04. J.Krimgold at site. Met with Charlie from Ambassador Fuel. They provide maintenance and oil delivery for 33 West 76 street (adjacent property). No petrol. odor was found in the basement or ground floor. However, as a precautionary measure Ambassador Fuel will replace vent line which close proximity to the adjacent building may cause odor during delivery.

3/4/04. J.Krimgold spoke to George (Ambassador Fuel) 718-585-6200. He stated that a vent line was replaced and relocated further away from adjacent building and a fill line was dug out and replaced with a new one. No contamination was found during excavation. NFA.

Map Identification Number 80 **ENNISMORE APARTMENTS INC** **Spill Number: 0411433** **Close Date: 08/23/2006**
 124 WEST 79TH ST MANHATTAN, NY TT-Id: 520A-0091-578

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 362 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: GARY – S J FUEL Spiller Phone: (718) 855-6060
 Notifier Type: Responsible Party Notifier Name: GARY Notifier Phone: (718) 855-6060
 Caller Name: ANTHONY LARA Caller Agency: PETROLIUM TANK CLEANERS Caller Phone: (718) 984-3978
 DEC Investigator: qxabidi Contact for more spill info: MR. ARI PAUL Contact Person Phone: (212) -87-3-4919

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/22/2005 | | OTHER | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 2500 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

Caller reports the fill line was disconnected. Fuel was pumped into the basement. Unknow if any got into any drains or sewers. Callers company will be doing the cleanup.

DEC Investigator Remarks:

1/25/04 tiple updating/// 2500 gal in tank room and some in basement, PTC conducted initial cleanup Sat AM before the brunt of the Blizzard. work is continuing 1/25/05.

08/07/06: This spill is transferred from Mr. Koon Tang to Q.Abidi. Called Gary (718)855-6060 regarding spill information and left message to call me back. -QA

08/23/06: This spill occured in the basement of apartment building #6 oil 2,500 gallons oil spill caused by disconnected fill line notified to SJ Fuel Co. They hired Petroleum Tank Cleaners for clean up the spill. Fill line replaced and spill is cleaned up. So according to the letter of Mr. Peter D'Arco. The tank and fill line are located in the basement above the ground. There were no cracks in the basement floor. Based on the information staff closed the spill. -QA

Map Identification Number 81 **20 RECINCT NYPD –DDC**
 120 WEST 82ND STREET

MANHATTAN, NY

Spill Number: 9512927

Close Date: 01/26/1996
 TT-Id: 520A-0101-368

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 416 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
 Notifier Type: Responsible Party
 Caller Name: MURALI SAGAR
 DEC Investigator: WEISSMAN

Spiller: DESK SSGT – NYC POLICE 20TH PCT
 Notifier Name: MURALI SAGAR
 Caller Agency: TONE TANK & PUMP
 Contact for more spill info: DESK SSGT

Spiller Phone: (516) 678-5115
 Notifier Phone: (718) 331-5003
 Caller Phone: (718) 331-5003
 Contact Person Phone: (516) 678-5115

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors),
 contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/16/1996 | | OTHER | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

tank removal, contaminated soil. see 9512346

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 82 **BET. COLUMBUS/ AMSTERDAM**
 118 W. 76TH ST.

NEW YORK, NY

Spill Number: 0511030

Close Date: 12/21/2005
 TT-Id: 520A-0095-762

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 520 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: UNKNOWN NAME – UNKNOWN Spiller Phone:
 Notifier Type: Local Agency Notifier Name: UNKNOWN CALLER Notifier Phone: () –
 Caller Name: SEAN DONOHUE Caller Agency: NYC DEP Caller Phone: (212) 490-4161
 DEC Investigator: JXZHAO Contact for more spill info: SEAN DONOHUE Contact Person Phone: (212) 490-4161

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/20/2005 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

Oil spill. All other info unknown.

DEC Investigator Remarks:

Building is abandoned and owned by the city of New York since 1976. Doors & windows are sealed.

Spill report was called in anonymously

Map Identification Number 83 **SPILL NUMBER 0313954** **Spill Number: 0313954** **Close Date: 03/24/2004**
 120 WEST 76TH ST. MANHATTAN, NY TT-Id: 520A-0091-502

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 533 feet to the SW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: DAVID LAVONTE – W. SIDE INSTITUT SYNAGOGU Spiller Phone: (212) 877-7652
 Notifier Type: Other Notifier Name: SEAN DONOHUE Notifier Phone: (212) 689-1520
 Caller Name: SEAN DONOHUE Caller Agency: NY DEP Caller Phone: (212) 689-1520
 DEC Investigator: MXTIPPLE Contact for more spill info: MS. SAMUELS Contact Person Phone: (212) 580-6513

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/22/2004 | | OTHER | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|--------|--------------------|--------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 0 | POUNDS | 0 | POUNDS | SOIL |

Caller Remarks:

unknown oil spilled possibly during delivery by oil company, possibly spilled into catch basin, no cleanup in progress yet, dwelling is apartment building

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIPPLE 3/22/04 tipple responded//the spill is in front of the West Side Institutional Synagogue apparently from an overflow of the tank spilling out the vent line. The building, sidewalk and roadway has been impacted. Tipple contacted David Lavonte at 212-877-0774 and was able to track down the oil company. Hess oil has the contract to supply the synagogue with oil and will clean the impacted areas in the AM.

3/24/04 – AM – Sangesland inspected –spill cleaned Spill Closed

Map Identification Number 84 **MANHOLE 57249** **Spill Number: 0011975** **Close Date: 07/11/2001**
 211 CENTRAL PARK WEST MANHATTAN, NY TT-Id: 520A-0097-032

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)
 Approximate distance from property: 542 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: 10024

| | | |
|---------------------------------|---|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Affected Persons | Notifier Name: JOHN MORAN | Notifier Phone: |
| Caller Name: ANTHONY NATALE | Caller Agency: CON EDISON | Caller Phone: (212) 580-6763 |
| DEC Investigator: OKWUOHA | Contact for more spill info: ANTHONY NATALE | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 02/07/2001 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM | 1.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

2 PINTS OF UNKNOWN OIL ON 10 GALLONS OF WATER. CLEAN UP PENDING ANALYZES. NO EFFECT TO OUTSIDE PROPERTY.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

E2MIS Notes 2/7/01: 2 pints of unknown oil with 10 gallons of water in manhole. No waterways affected. No smoke or fire. No environmental or outside impact. An analysis is not possible due to the insufficient amount of material recovered.

LSN 01-01292

Type unkonwn, PCb count <1ppm

Liquid amount 100gals water/oil

Walls and floor were double washed with degreaser. Spill source unknown.

Map Identification Number 85

7 WEST 82ND ST/MANHATTAN
7 WEST 82ND STREET

NEW YORK CITY, NY

Spill Number: 8903584

Close Date: 07/11/1989

TT-Id: 520A-0091-714

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 617 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN

Notifier Type: Citizen

Caller Name: P O LEO

DEC Investigator: TOMASELLO

Spiller: UNKNOWN

Notifier Name:

Caller Agency: USCG

Contact for more spill info:

Spiller Phone:

Notifier Phone:

Caller Phone: (212) 668-7938

Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 07/10/1989 | 07/11/1989 | UNKNOWN | UNKNOWN | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN MATERIAL | OTHER | -1.00 | UNKNOWN | 0.00 | UNKNOWN | SOIL |

Caller Remarks:

NRC NOTIFIED, REFER TO SPILL # 8903548. 7/11/89 : 0900- SERGIO MATOS OF DEP ASBESTOS UNIT WILL HANDLE.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 86 **TOWNHOUSE** **Spill Number: 0011330** **Close Date: 04/08/2009**
 144 WEST 82ND ST NEW YORK CITY, NY TT-Id: 520A-0098-746

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 621 feet to the NNW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|----------------------------|--|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN FOR NOW | Spiller Phone: |
| Notifier Type: Other | Notifier Name: SAME | Notifier Phone: |
| Caller Name: STEVEN ABRAMS | Caller Agency: FOUNTAINHEAD CONSTRUCTION | Caller Phone: (212) 724-7018 |
| DEC Investigator: SFRAHMAN | Contact for more spill info: STEVEN ABRAMS | Contact Person Phone: (212) 724-7018 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/17/2001 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SURFACE WATER |

Caller Remarks:

THEY WERE DIGGING AND FOUND WATER WITH OIL APPEARS OLD SPILL.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was KRIMGOLD 01/29/01

Brownstone: basement 19 by 55 feet.

broke through concrete for new elevator shaft and encountered oil/water. Went back, no oil. They will do borings around the hole to delineate oil/water. No evidence of tank. Building gas powered. May underpin entire basement and lower floor a few feet. He will hire contractor who will keep me apprised of situation.

01/26/04

Transferred from Rommelto Austin 02/17/04: Reassigned from AUSTIN to KRIMGOLD. To Albany

9/7/06 – Austin – Assigned from Albany to Region 2 staff (Rahman) for review and closure – end

03/31/09 No documents available in edocs. Unsure if borings were done. Letter was sent to

Wayne C Wilkey 144 West 82nd Street New York, NY 10024(sr)

04/08/09 Rec'd letter response from Wayne Wilkey. There was no tank on that property when the spill was called in. Petroleum odor was discovered from a pit excavated for an elevator. Athenica submitted soil samples for testing. Concentrations were below RSCO. Soil with petroleum odor was disposed by 'Industrial Waste Technologies'. As per the letter, the smell of petroleum odor could be coming from residual oil left after an old heating oil tank had been removed. Case closed. (sr)

Map Identification Number 87**SPILL NUMBER 0107348**

160 WEST 78TH ST

NEW YORK, NY

Spill Number: 0107348**Close Date: 10/01/2002**

TT-Id: 520A-0098-714

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 667 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: UNKNOWN Spiller Phone:
 Notifier Type: Police Department Notifier Name: HAROLD CASSEMERE Notifier Phone: (212) 580-6411
 Caller Name: HAROLD CASSEMERE Caller Agency: NYC POLICE 20TH PRICENT Caller Phone: (212) 580-6411
 DEC Investigator: MXTIPPLE Contact for more spill info: HAROLD CASSEMERE Contact Person Phone: (212) 580-6411

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/17/2001 | | OTHER | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| UNKNOWN MATERIAL | OTHER | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

CALLER STATES THEY FOUND A SUSPICIOUS CONTAINER THAT IS LABELS PISONOUS – FIRE DEPT AND HAZ MAT ON SCENE – AWAITING DEC REP TO RESPOND AND PICK UP THE CONTAINERS – 917-548-8988 IS THE CALLERS CELL NUMBER ON THE SCENE

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIPPLE Hazardous materials lead is the DEP HAZMAT TEAM

Map Identification Number 88 **AMERICAN MUSEUM HISTORY** **Spill Number: 9704989** **Close Date: 12/31/1997**
 81ST ST & CENTRAL PK WEST NEW YORK CITY, NY TT-Id: 520A-0097-030

MAP LOCATION INFORMATION
 Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 675 feet to the E

ADDRESS CHANGE INFORMATION
 Revised street: W 81ST ST / CENTRAL PARK W
 Revised zip code: 10024

Source of Spill: COMMERCIAL VEHICLE Spiller: SAME – MORRIS DIESEL Spiller Phone: (212) 484-0300
 Notifier Type: Responsible Party Notifier Name: SAME Notifier Phone:
 Caller Name: CLAUDE WUYTACK Caller Agency: MORRIS DIESEL Caller Phone: (212) 496-3362
 DEC Investigator: MMMULQUE Contact for more spill info: SAME Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 07/25/1997 | | OTHER | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| DIESEL | PETROLEUM | 70.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

they had a pile driver roll over due to the soft ground there they are at the construction area.diesel went onto the ground into a puddle of water.ab oil services ltd enroute to clean up spill phone 516-567-6545

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was MULQUEEN NO INQUIRIES, A & B PUMP OUT HOLE TONIGHT CONTAMINATED SOIL TO BE EXCAVATED.

Map Identification Number 89  **79TH ST TRANSVERSE** **Spill Number: 9105945** **Close Date: 09/03/1991**
 79TH ST TRANSVERSE NYC, NY TT-Id: 520A-0090-007
 CENTRAL PK W

MAP LOCATION INFORMATION
 Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 675 feet to the E

ADDRESS CHANGE INFORMATION
 Revised street: W 81ST ST/CENTRAL PARK W
 Revised zip code: 10024

Source of Spill: UNKNOWN Spiller:
 Notifier Type: Local Agency Notifier Name:
 Caller Name: LIONEL MCKENZIE Caller Agency: NYCDEP Spiller Phone:
 DEC Investigator: WILSON Contact for more spill info: Contact Person Phone: (718) 595-4654

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 08/30/1991 | 09/03/1991 | UNKNOWN | UNKNOWN | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM | -1.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

CAUSED TRAFFIC ACCIDENT. CONTAINED ON ROADWAY. SANITATION INVOLVED.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 90

SPILL NUMBER 0101436

Spill Number: 0101436

Close Date: 07/17/2003

 CENTRAL PARK W/ W 81ST ST

MANHATTAN, NY

TT-Id: 520A-0090-726

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 675 feet to the E

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Other
 Caller Name: BILL MURPHY
 DEC Investigator: JHOCONNE

Spiller: UNKNOWN
 Notifier Name: MR PELIGRINO
 Caller Agency: CON ED
 Contact for more spill info: BILL MURPHY

Spiller Phone:
 Notifier Phone:
 Caller Phone: (212) 580-6763
 Contact Person Phone: (212) 580-6763

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 05/07/2001 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 8.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

oil found in an excavation for telecommunications duct installation. 3rd party spill. clean up pending. con ed 136-902

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL Con Ed e2mis #136902:

5/07/01 11:55 hrs. James Delia, Inspector for Construction Mgmt., reported at 10:41 hrs. that Kevin McCormack of RCI (a Contractor) found at 10:25 hrs. approx. 8 gallons of an unknown oil and no water in an excavation located on Central Park West

306 ft. south of the south corner of West 81 Street, 1 ft. east of the west corner of Central Park West. The contractor was installing telecommunication ducts when he discovered the oil.

NOTE: James Delia will be used as the Finder since the contractor's name is not in our database. Contractor believes that the unknown oil is possibly fuel oil. The source and cause of the spill is unknown. No samples taken. No cleanup action except all work was stopped. The Environmental Desk (E.D.) was asked to call the Chem Lab to take samples. The E.D. requested that samples be taken for PCB and Oil Id.

UPDATE @ 17:03 hrs. Environmental Desk (E.D.) made arrangements for Chemist to take samples tomorrow, 5/08/01 at 07:00 hrs.. Samples to be taken for PCB, Oil ID and Flash Point. E.D. made recommendation to Construction Mgmt. personnel to have excavation barricaded and made safe to prevent unauthorized access. It was made clear to James Delia that no one should be allowed access to this excavation until the results of the lab analysis reports have been received.

05/06/03 8:45hrs – As per James Delia on 05/02/03, the clean up was complete in about two weeks from the date of test results and 4 drums of non haz oily soil was transported by Astoria transportation for disposal. This incident is being closed – updated by Bharat Mukhi, M&C – EHS.

Map Identification Number 91 **SPILL NUMBER 9914163** **Spill Number: 9914163** **Close Date: 03/16/2000**
 W 77TH ST/CENT PARK W MANHATTAN, NY TT-Id: 520A-0093-091

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 676 feet to the SSE

ADDRESS CHANGE INFORMATION

Revised street: W 77TH ST / CENTRAL PARK W
 Revised zip code: 10024

| | | |
|-----------------------------------|--|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: | Spiller Phone: |
| Notifier Type: Federal Government | Notifier Name: GWEN HAWKINS | Notifier Phone: (718) 595-6777 |
| Caller Name: GWEN HAWKINS | Caller Agency: DEP | Caller Phone: (718) 595-6777 |
| DEC Investigator: JMROMMEL | Contact for more spill info: MISS LAYTON | Contact Person Phone: (212) 753-5245 |

Category: Investigation indicates there was no spill.
 Class: Any Type of RP, Including No RP – DEC Field Response – Corrective Action Not Required or Not Possible

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 03/15/2000 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN MATERIAL | OTHER | 0 | GALLONS | 0 | GALLONS | SURFACE WATER |

Map Identification Number 93 **163 WEST 76TH ST/MANH**
 163 WEST 76TH STREET

NEW YORK CITY, NY

Spill Number: 9002134

Close Date: 11/14/1991
 TT-Id: 520A-0098-719

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 757 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Local Agency
 Caller Name: TOM THOMAS
 DEC Investigator: SULLIVAN

Spiller:
 Notifier Name:
 Caller Agency: NYCDEP
 Contact for more spill info:

Spiller Phone: (212) 787-3829
 Notifier Phone:
 Caller Phone: (212) 669-8928
 Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 05/23/1990 | 11/14/1991 | UNKNOWN | UNKNOWN | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | -1.00 | UNKNOWN | 0.00 | UNKNOWN | SEWER |

Caller Remarks:

DEC (SULLIVAN) TO INVESTIGATE.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 94 **55 W 74 ST**
 55 W 74TH ST

MANHATTAN, NY

Spill Number: 0805106

Close Date: 08/06/2008
 TT-Id: 520A-0220-645

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 778 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Responsible Party
 Caller Name:
 DEC Investigator: vszhune

Spiller:
 Notifier Name:
 Caller Agency:
 Contact for more spill info: RAE BARLOW

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (212) 580-0443

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/02/2008 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

OIL SPILL IN FRONT OF BUILDING RUNNING DOWN STREET. SOURCE UNKNOWN.

DEC Investigator Remarks:

08/02/08–Zhune spoke to Rai Barlow (212) 580–0443. I saw spill on the street. It does not smell oil but look like oil. It have a brown color. I asked her to go outside and check it because, probably it was wash out with the heavy rain . She said I will go out in an hour call me back.

Zhune called back Rai and she said There is no much anymore, the spill was gone with the rain

08/04/08–Sharif Rahman visited the site. He did not see any spill on the street

Map Identification Number 95 **DECLERCQ RESIDENCE** **Spill Number: 0607638** **Close Date: 10/17/2006**
 48 WEST 84TH STREET MANHATTAN, NY TT-Id: 520A–0090–340

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 784 feet to the NE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|----------------------------------|---|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: NYC DEP HAZMAT – UNKNOWN | Spiller Phone: (718) 595–4784 |
| Notifier Type: Police Department | Notifier Name: | Notifier Phone: |
| Caller Name: | Caller Agency: | Caller Phone: |
| DEC Investigator: JBVOUGHT | Contact for more spill info: NYC DEP HAZMAT | Contact Person Phone: (718) 595–4784 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 10/04/2006 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN MATERIAL | OTHER | 0 | GALLONS | 0 | GALLONS | AIR |

Caller Remarks:

CALLER REPORTS A CALL COMING INTO TO HAZMAT BY MATTHEW DECLERCQ AT 212-496-9607 COMPLAININ OF A STRONG OIL SMELL IN THE AREA OF HIS RESIDENCE, POSSIBLY COMING FROM HIS NEIGHBOR AT THIS LOCATION:

DEC Investigator Remarks:

10/4/06-Vought-Off hours responder. Performed site visit with DEC Zhune due to vapor complaint. Vought called Mathew de Clercq who stated that he lived at 50 West 48th Street and he was smelling strong petroleum vapors from the next door residence that was currently vacant and that had a prior oil spill (see closed spill #0650371). When Vought and Zhune arrived on site, resident of basement of 50 West 48th Street stated that he had not smelled any petroleum fumes in since previous winter. Inspection of basement of 50 West 84th Street was performed and no USTs, old fills, oil stains, vapors were noted. 50 West 84th Street currently using natural gas for heating. Vought and Zhune also interviewed residents at 46 West 48th Street (Douglas King) and they had also not detected petroleum odors. Ling and King were provided with DEC information in case they detected odors in the future. Douglas King provided contact information for owner of 48 West 84th Street:

Suzanne R Holmes 790 Riverside Drive #10E New York, NY 10032 Phone:(212)368-8880

Zhune and Vought inspected 48 West 84 via a small hole in basement window. Petroleum odors were noted emanating from the basement. A portion of a suspected 275-gallon #2 fuel oil AST was visible and had some oil staining. A portion of the poured concrete floor was also visible with no signs of spillage.

10/5/06-Vought-Received call from Bob Ling and realtors contact info for 48West84th Street is John Bowe(646-613-2711) and Stan Ponte(646-613-2756). Vought called Holmes to require visit and send soil contamination letter. Vought called back Suzanne Holmes and informed her of odor complaint and she stated that you are full of shit and hung up on me. Vought called her back and left message that if call back was not received in 10 minutes case would be referred to ECO's for enforcement. Vought referred case to ECO's for enforcement. Note following violations: Navigation Law: Article 12 Section 173-Prohibition of discharge, Article 12 Section 176-Removal of prohibited discharge. Vought called Schildwalker (spiller for spill #0650371 Schildwalker-800.642.3546) and number is wrong number. Vought called Mathew deClercq and left message updating him with information. Vought set up appointment with ECO Loriso for 10/10 at 9am at 48 W84th Street. Vought received call from Ling and updated him on site.

10/11/06-Vought. Site visit by Vought with ECO Lorioso to both site and owner's address. Visit to site to confirm presence of odors from basement with ECO. After confirmation of odors, site visit was performed with ECO to residence Suzanne Homes. Holmes

immediately agreed to site access and set up appointment with super (Orlando 917-886-4788). Vought handed her copy of soil contamination letter. Site visit showed stained concrete and some stained debris (dust and dirt on concrete) around two (275-gallon) #2 fuel oil UST and some oil on USTs. Poured concrete floor and no pathways to subsurface. DEC required: 1)closing of basement window 2)Sweeping of oil contaminated dust 3)painting of floor. Vought spoke with Orlando and Holmes regarding requirements and Holmes agreed to send in letter stating such. Vought called Mathew DeClercq and updated him on information and DeClercq informed Vought that window was sealed.

11/17/06-Vought-Received message from Holmes and Orlando that DEC requirements of 1)closing of basement window 2)Sweeping of oil contaminated dust 3)painting of floor were performed. Spill closed by Vought.

Map Identification Number 96 **MULTI-DWELLING RESIDENCE** **Spill Number: 0203985** **Close Date: 09/18/2002**
 171 W. 81TH ST MANHATTAN, NY TT-Id: 520A-0097-834

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 814 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: 171 W 81ST ST
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|---|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Fire Department | Notifier Name: UNIT ON SCENE | Notifier Phone: |
| Caller Name: DISPATCHER 476 | Caller Agency: NYC FIRE DEPT | Caller Phone: (212) 570-4300 |
| DEC Investigator: JXZHAO | Contact for more spill info: DISPATCHER 476 | Contact Person Phone: (212) 570-4300 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 07/16/2002 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 2500 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

SPILL IN BUILDING. NO CALL BACK NEEDED. FD ON SCENE.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was ZHAO/DEMEO 7/16/2002 - 21:20: Zhao and Demeo responded on

scene off hours. A 5,000 gallon #6 fuel oil AST vaulted in basement. The tank was overfilled, and also leaked from a patch on upper tank. NYC Fire HazMat on scene stopped the leak. There were about 40 gallons oil spilled out in the tank vault from the leaked patch some of them contained in buckets, About 20 gallons oil was found in the building backyard vent pipe area, A puddle in drain in front of the basement door, a couple of spill evidences found on walls along the fillline. – Site superintendent Jesus stated to the DEC representatives and Hess Oil Corp representative that he ordered the 2,500 gallons oil and he was in control of transfer as he was present and pumped the petrometer. – A. L. Eastmont was contracted for removal all tank oil by building representative (we were told that super called contractor). Eastmont went there around 12:00am with a 5,000 gal tanker truck. The pumped oil was let to send back to Hess to be reused. There were about 4,500 gal oil removed from tank.

7/17/2002 – A L Eastmond pumped out the remained oil in the tank.

7/18/2002 and 7/19/2002 – A L Eastmond continues working to remove the pooled product. Ms Zhao has informed the Eastmond site manager Rene Lewis (also Stellar Management)to clean up the spills immediately in the rear of the building the vent area, which has not been done yet. By 3:30pm, information received by a follow-up call to Eastmond manager, A L Eastmont has checked the backyard spill and will clean up ASAP. They will continue to cleaning and testing tank next Monday from their schedual.

7/19/2002 – Work-to-do letter has been sent accompany with PBS NOV to Stellar Management by fax and certified mail.

7/23/02 – A L Eastmond will continue work starting tomorrow for this week. Backyard spill still need to be cleaned up. The DEC will follow up next week.

8/5/2002 – Tank tightness test failed.

8/26/2002 – Tank has been removed last week by New York Combustion. A L Eastmond continued to dig contaminant soil last Friday.

Map Identification Number 97



PARKING GARAGE

150 WEST 83RD STREET

NEW YORK, NY

Spill Number: 0611800

Close Date: 07/30/2008

TT-Id: 520A-0098-752

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 850 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER

Notifier Type: Other

Caller Name:

DEC Investigator: hrpatel

Spiller: STEVEN – PARKING GARAGE

Notifier Name:

Caller Agency:

Contact for more spill info: STEVEN

Spiller Phone: (516) 576-8844

Notifier Phone:

Caller Phone:

Contact Person Phone: (516) 576-8844

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
|-------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 01/24/2007 | | OTHER | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

SOIL TESTING SHOWED FULE IN SEVERAL LOCATIONS:

DEC Investigator Remarks:

Sangesland spoke to Steve Malinowski at CA Rich. The property is being sold and he works for the current owner. A phase 1 was done by someone else and identified possible petroleum tanks on site. Steve was hired to do a phase 2 which he started. They did find contaminated soil and hit what he assumes is a buried tank. The property is being sold and will be torn down for redevelopment in the spring (2007). They would like to hold off doing any major remedial work on the site until that time.

CSL sent to current owner: Marc Ravner EZ Group 1220 Broadway – suite 408 NY NY 10001

1/25/07–Vought–Received call and spoke to Malinowski and building will not be torn down but will be rehabilitated in place and foundation will stay in place. Building is four story garage with plans for garage on bottom and top four floors will be gutted and rehabed. Basement is parking garage and some vents present. Geoprobe borings were performed (seven borings) and three appeared contaminated with odors from 3.5–8' with highest PID of 1275ppb. No groundwater encountered in borings. Samples currently being analyzed and further delineation will be performed to decide on remedial action (most likely excavation). Geoprobe performed through tank showed no indications of product other than one inch of sludge. Four vent pipes present and GPR survey performed and pipes connected to tank area. Possibly additional tanks. Second floor. Vought requested site visit for vapor inspection in addition to approval of further delineation.

04/12/07–Vought–Received call from Stephen Malinowski to discuss site. Heavy soil contamination noted under garage floor. Site will be sold once spill closed and site may be developed for residential. No groundwater samples collected to date. RAP will contain contingency to install SSDS if endpoint samples are contaminated. Gym to the right and retail to left. Decision on street well location pending submission of soil endpoint samples and site visit. Malinowski will send in proposed RAP for excavation.

DEC requires: 1)collection of groundwater sample 2)vapor barrier/possible SSDS 3)site visit to inspect excavation before backfill 4)collection of soil endpoints 5)surrounding area site plan.

05/14/07–Vought–File update by Vought.

Phase II Environmental Investigation Report (CA Rich–Stephen Malinowski) dated 3/20/07 and received on 3/22/07. Phase I showed four vent pipes in roof of building, evidence of floor restoration of concrete floor in garage, presence of three abandoned fill

ports with concrete, presence of former dispenser islands and piping. Five soil borings performed on 1/24/07. Report recommends excavation and removal of at least one confirmed UST, excavation of all impacted subsurface soils along with preparation of Health and Safety Plan (HASP). HASP will include provisions for air monitoring and ventilation during removal of USTs. Soil analyticals show: 3900ppb benzene(B1 3.5–4'bg), 4900ppb toluene(B1 3.5–4'bg), 10000ppb ethylbenzene(B1 3.5–4'bg), 32000ppb xylene(B1 3.5–4'bg), (note that B1 9–10'bg was below TAGM 4046 for VOCs and SVOCs), 2800ppb benzene(B2 5–6'bg), 28000ppb toluene(B2 5–6'bg), 130000ppb ethylbenzene(B2 5–6'bg), 770000ppb xylene(B2 5–6'bg), 8000ppb xylene(B2 9–10'bg), 4500ppb 1,3,5-trimethylbenzene(B2 9–10'bg), 13000ppb 1,2,4-trimethylbenzene(B2 9–10'bg), 11000ppb benzene(B5 4.5–5.5'bg), 50000ppb toluene(B5 4.5–5.5'bg), 72000ppb ethylbenzene(B5 4.5–5.5'bg), 280000ppb xylene(B5 4.5–5.5'bg).

Email from CA Malinowski to DEC Vought–4/13/07/ I just wanted to let you know that we checked the NYC website and confirmed that the above–referenced site is not identified with an E–designation .

Remedial Workplan (CA Malinowski) dated 4/19/07 and received on 4/25/07. An approximate 400 square foot area surrounding tank location will be saw cut and excavated. Soils will be segregated and contaminated soil will be disposed of. Excavator has a reach of 8.5 feet and if contamination extends beyond this depth, ramp will be built for excavator to enter excavation. Contaminated soil excavation and removal will continue until all of the impacted soil has been removed, until contamination exceeds the depth capabilities of the equipment, or proximity to load bearing structures (building walls, etc.) precludes further safe excavation. Proposal also includes collection of endpoint samples (five samples). If all contamination cannot be removed then piping for sub–slab venting system into excavation. As per our recent conversation, we understand that based on the extent of the soil contamination observed during the remediation NYSDEC may require the collection of groundwater quality samples. If required the work will be performed as a separate follow–up task to the proposed cleanup activities detailed in this Work Plan .

Email from CA Malinowski to DEC Vought–5/9/07. Please acknowledge that it is okay to proceed with the scope of work .

Email from CA Malinowski to DEC Sangesland–5/9/07/ Request to contact Vought for approval.

5/14/07–Vought–Called CA Malinowski (cell 631–974–5755) and he is onsite and work is beginning today. Vought discussed below requirements and sent letter to above address as per Malinowski.

DEC requires: 1)investigation of remote fill ports and piping 2)PBS registration 3)collection of groundwater samples 4)collection of endpoint samples from limits of excavation as per DER–10 frequency 5)submission of plans for SSDS to DEC if necessary.

Vought sent residential construction soil contamination letter with above requirements and one month due date.

05/16/07–Vought–Received call from Malinowski that UST pull scheduled for 5/18 and DEC site visit requested. Malinowski also submitting letter with more description of SSDS. Vought called Malinowski and requested that DEC site visit be performed upon reaching terminus of excavation. Vought called Malinowski and he will send in plans for SSDS and call DEC Vought upon reaching excavation limits.

05/17/07–Vought–Received plans for SSDS from Malinowski including installation of 4 perforated PVC pipe in 3/4 inch stone, .6 mil vapor barrier under concrete slab. Site plan shows SSDS to be installed around perimeter of UST pad but notes that The actual size of the SSDS to be installed will be directly based upon the extent of the excavation . Vought approves scope of SSDS system however no formal approval issue given as extent of SSDS system not known. <-----

05/22/07–Vought–Received message from CA Rich Malinowski that owners will be onsite today however endpoint samples are not be ready to be collected as further excavation is planned. Vought called and left message for Malinowski to return call to Vought with endpoint sampling date so that a site visit may be scheduled. Vought spoke to CA Malinowski and tanks have been removed and sewer line in east side of excavation but has clean soil. Western most tank had holes and continuing excavation to west. Groundwater in hole previously due to broken sewer pipe. Excavation will continue to the west and the tanks will be removed. Possible fourth tank located (four vents and only three tanks found).

05/24/07–Vought–Site visit by Vought with Malinowski. During excavation activities, a backhoe ran over a can of primer that released vapors into building. Building was ventilated. Supply/return lines for fourth tank were followed approximately 40' to rear of building and UST not found as of yet. UST may be located behind wall in unexplained room (or brick enclosure that has no doors, connecting pipes or indication of tanks). Groundwater present in excavation. DEC required installation of wells to groundwater in excavation and Malinowski will install two groundwater monitoring points (for treatment and/or monitoring). Malinowski also installing four vertical extraction wells and groundwater at depth of 6' below grade. No official plans for property as of yet. Visibly contaminated soil under floor and DEC suggested additional excavation to structural limits. Four endpoint soil samples will also be collected. Remote fill and fourth tank will be investigated using Geoprobe. Pilot test for extraction system will also be run and vapor barrier will be installed in excavation. RAP will be submitted including soil endpoint samples and SSDS by 7/14/07.

8/3/07 – Austin – Transferred from Vought to Patel for further review and action – end

Stephen Malinowski CA Rich Consultants, Inc. Ph. (516) 576–8844 (O)

(631) 974–5755 (C) FAX (516) 576–0093 email: smalinowski@carichinc.com

08/16/07–Hiralkumar Patel. received tank closure report. abstract:

– removed three USTs enclosed in concrete – found contaminated soil under western tank and under fill line for eastern tank – approx. 6 ft bg, water began entering the excavation – installed four 2–inch dia pieces of 20–slot PVC in the perimeter of the western side of the excavation and an additional point beneath the former leaking fuel fill lines – vapor barrier was placed over the entire excavation – endpoint soil samples were collected from the southern, northern and eastern sides of excavation – no endpoint sample collected from western side as that area still contaminated <----- – no further excavation possible – water sample was collected from one of the two–inch dia slotted pipes installed in the western side of the excavation <----- – removed 1,675 gal of contaminated water and 47.28 tons of impacted soil – recommends further soil and groundwater delineation – heavy contamination in sample from north, south and pipe trench area

soil analytical data: -----north-----south-----pipe trench
 Benzene-----1,700-----1,400-----4,000 Toluene-----14,000-----55,000-----50,000
 Ethylbenzene-----9,700-----110,000-----68,000 Xylene-----52,000-----900,000-----372,000
 1,2,4–Trimethylbenzene-----32,000-----550,000-----220,000 1,3,5–Trimethylbenzene-----9,900-----200,000-----76,000
 Naphthalene-----53,000-----21,000

groundwater analytical data: -----GW-1 Benzene-----2,500 Toluene-----4,700
 Ethylbenzene-----1,100 Xylene-----6,200 1,2,4–Trimethylbenzene-----1,600

1,3,5-Trimethylbenzene-----560 MTBE-----180 Naphthalene-----320

recommendations:

– installation of soil borings and soil sample collection in north, south and west areas to delineate the extent of residual contamination – proposed borings should be installed to a final depth of approx. 10–12 ft below the surface (not acceptable, need boring to depth of clean soil or termination) – installation of two soil borings in the extreme southern end of the basement – installation of one well beneath the sidewalk immediately north of the building along West 83rd street adjacent to the former remote fuel fill ports

spoke with Mr. Malinowski. they have installed well on sidewalk along West 83rd Street and will take sample next week. took some soil samples also. will submit delineation report by end of month. the well, installed on sidewalk, is on north side of tank area. based on endpoint analyticals, found heaviest contamination on south side. asked Mr. Malinowski to define site specific groundwater flow direction. Mr. Malinowski mentioned that there is one well in middle of excavation and they have installed one on sidewalk. due to space restriction, they can't install anymore wells inside building. asked Mr. Malinowski to install third well on same sidewalk to define groundwater flow direction. sent email to Mr. Malinowski with same requirement.

08/22/07–Hiralkumar Patel. received email from Mr. Malinowski. as drilling equipment was removed from site, they are not able to install third well now and to include site specific groundwater flow direction in next report. Mr. Malinowski will send supplemental delineation report by end of month. spoke with Mr. Malinowski. he is preparing report. regarding third well, he mentioned that potential purchaser is doing geotechnical investigation and will install four borings which could be used as well. he is in contact with another consultant and will use their boring points to find groundwater flow direction.

09/05/07–Hiralkumar Patel. received call from Mr. Malinowski. he mentioned that potential buyer will not do any investigation at site. Mr. Malinowski is going to install two micro wells (one on eastern boundary, more towards southern end of excavation boundary, and one on western boundary) inside basement. he will survey these wells to define groundwater flow direction and will send investigation report with proposed remedial action plan. investigation report will also include soil delineation data as they did about 14 borings inside basement to define area of soil contamination.

10/11/07–Hiralkumar Patel. left message for Mr. Malinowski. 10/12/07–Hiralkumar Patel. received investigation report from Mr. Malinowski. abstract:

– installed 14 soil borings through the basement floor – install one well on sidewalk adjacent to former fill port – install two wells inside basement – at each boring locations, soil samples were continuously collected until shallow groundwater was reached at approx. 6–7 ft below the basement floor – groundwater, in monitoring well installed on sidewalk, was encountered at approx. 15.5 ft below street grade – three soil samples were collected during well installation on sidewalk (no contamination found) – well on sidewalk was installed to depth of 25 ft bg – no floating product found in monitoring well on sidewalk – no floating product was observed in any well inside basement but a petroleum odor was noted in well MCW-1 – groundwater flow direction at the site is west–northwest

summary:

– no contamination found at former fill port – contamination doesn't not exceeds more than 10–20 ft from previous excavation limit on south side – contamination along western edge is limited to immediate vicinity of the sidewall of former excavation –

found contaminated area at the southern edge of property, around suspected UST area – constituents commonly associated with gasoline was detected in upgradient well MCW-1 to the south-southeast of the former excavation area

soil analyticals values: -----S1-B1-----S1-B5-----S1-B8-----S1-B13-----limit

| | 4-6 ft | 4-7 ft | 4-7 ft | 2-4 ft | |
|------------------------|---------|---------|--------|---------|--------|
| Benzene | 1,400 | | | 740 | 60 |
| Toluene | 28,000 | | | 24,000 | 1,500 |
| Ethylbenzene | 42,000 | 8,400 | | 37,000 | 5,500 |
| Xylene | 1,600 | 168,000 | 1,800 | 147,000 | 1,200 |
| 1,2,4-Trimethylbenzene | 110,000 | | | 100,000 | 10,000 |
| 1,3,5-Trimethylbenzene | 5,900 | 48,000 | | 43,000 | 3,300 |
| Naphthalene | 20,000 | | | 18,000 | 13,000 |

– only contamination found in groundwater was Naphthalene (240 ppb) in upgradient well MCW-1. – no contamination found in groundwater sample from previous groundwater sampling point which was inside previous excavation area

10/15/07–Hiralkumar Patel. sent email to Steve requiring submission of RAP. received call from Steve. he has submitted report to current owner and currently owner and potential buyer is reviewing this report. Steve is not sure when property closing will happen, if happen. and remediation will be depend on type of future use of this property. he will talk to his client regarding time duration for closing of the property. informed Steve that if closing doesn't happen in a month, then owner has to start remediation to prevent further damage. got property owner's information:

Marc Ravner MARGLO, LLC. 1220 Broadway, Suite 408 New York, New York 10001 Ph. (917) 743-1553 email: marc@ravner.com

10/31/07–Hiralkumar Patel. sent email to Mr. Ravner requiring RAP submission. 11/26/07–Hiralkumar Patel. spoke with STEve at CA Rich. he mentioned that site will be used as garage as buyer is not instrested in property. Steve is going to site this week to track fourth tank for abandoned line in ground, and if finds tank then based on tank location, Steve will submit a RAP (most probably by Dec. 7, 2007).

11/28/07–Hiralkumar Patel. received email from Steve. he is going to site on 11/30/07.

01/02/08–Hiralkumar Patel. received project update from Steve. they did not find any tank for pipe that runs from former tank excavation towards and below rear wall near the southern edge of the site.

01/14/08–Hiralkumar Patel. received message from Ivy Olberding (631-589-6353, IvyO@pwgrosser.com) from PW Grosser. they been contacted by owner for further work. Ivy will call once they get hired.

01/30/08–Hiralkumar Patel. spoke with Ivy at PW Grosser. they been hired by owner. Ivy will submit RAP.

02/05/08–Hiralkumar Patel. received call from Ivy. they are planning for further excavation. Ivy will submit work plan.

02/12/08–Hiralkumar Patel. received email from Eric. spoke with Eric. he has been contacted by property owner regarding remediation at site. Eric asked what needs to be done to close the case. explained Eric that the department is waiting for RAP

from owner. Eric will submit RAP, if get hired.

Eric Telemaque, President EMTEQUE Corporation New York, NY 10018 Ph. (212) 631-9000 Fax (212) 631-8066 email: eric@emteque.com

spoke with Mr. Ravner. he has hired PW Grosser. asked him to submit RAP by Feb. 22, 2008.

03/14/08-Hiralkumar Patel. spoke with Mr. Ravner. PW Grosser has prepared RAP and will submit by March 18, 2008.

03/20/08-Hiralkumar Patel. received work plan from Ivy from PW Grosser. abstract:

- proposed additional subsurface investigation will be performed to excavate the identified contaminated soil - soil and groundwater endpoint samples will be collected - ORC treatment will be used as expecting groundwater at bottom of excavation - will sample existing wells (MCW-1 and MCW-2) approx. one month after excavation and application of ORC

Ivy Hidalgo-Olberding P.W. Grosser Consulting Ph. (631) 589-6353 (O)

(516) 424-1984 (C) email: ivyo@pwgrosser.com

Ivy proposed to take endpoint samples from three sidewalls only and groundwater sample from bottom of excavation where tanks were. there will be no samples taken from eastern sidewall as no contamination found in eastern endpoint sidewall sample after tank removal work.

sent email to Ivy approving proposed plan with only change that endpoint soil samples must be taken from all sidewalls. also mentioned that the department may require further soil/groundwater delineation/remediation based on result of remedial activities.

03/27/08-Hiralkumar Patel. received message from Ivy. will start excavation on 03/31/08. 04/10/08-Hiralkumar Patel. received call from Ivy. they are excavating area. Ivy found that previous tank location area excavation was backfilled with clean soil and there is now two feet thick concrete. Ivy asked if they need to remove that concrete. told Ivy that during tank removal, previous contractor removed soil to the depth of water table and backfilled with clean soil so no meaning of removing that thick concrete and clean soil. mentioned to her that if any groundwater is contaminated under previous tank location, they can be treated with other wells in area. asked Ivy to collect endpoint soil and groundwater samples and submit sample analyticals with site map. told her that sample analyticals must be submitted prior to any backfilling, so if needed wells could be installed inside excavation alongwith vapor barrier and possible SSDS. Ivy will screen top soil and will use clean soil from excavation to backfill it.

04/18/08-Hiralkumar Patel. received call from Ivy. they took samples for waste characterization and asked whether need TAGM or STARS. asked Ivy to run samples for full list. Ivy mentioned that they dug most of area and found contamination below water table. they can't dig any more. asked Ivy to collect endpoint soil and groundwater samples and asked to keep excavation open, if possible, until receive and review the endpoint analyticals. based on endpoint analyticals, will submit RAP.

04/23/08-Hiralkumar Patel. received call from Ivy. she got verbal information from lab. found some contamination in north and west sidewall samples. no further excavation is possible in these areas due to foundation wall and electric vault. excavation done to depth of groundwater. as no further excavation possible, they area injecting ORC in soil. asked Ivy to submit sample analyticals for review, once available, before any backfilling.

04/24/08–Hiralkumar Patel. received site map with sampling locations and endpoint sample analyticals. collected one sidewall samples from East, South and North side of excavation and two sidewall samples from West side of excavation. northern most section of the East Wall could not be sampled because it was excavated to the brick wall; therefore no soil to sample. found contamination in samples from northwest corner (where stairs and auto elevator located).

| | | | | | |
|------------------------|--------|--------|------------------------|--------|--------|
| | NW-1 | WW-1 | Ethylbenzene | 10,100 | 8,860 |
| Xylene | 12,960 | 11,450 | 1,2,4-Trimethylbenzene | 9,970* | 9,370* |
| 1,3,5-Trimethylbenzene | 4,590 | 4,380 | Naphthalene | 6,190* | 3,980* |

* compounds found under TAGM limit

Regenox, was applied immediately after a second round of VEFR of groundwater in the open excavation.

spoke with Ivy. she mentioned that due to surrounding utilities and buidling structure foundation, no further excavation is possible. they have took groundwater sample from excavation and waiting for results. they also excavated area in southern end, as proposed in plan and took samples. waiting for endpoint sample analyticals from southern excavation. Ivy mentioned that currently there are two wells available inside basement, which were installed during earlier study and one well outside on sidewalk along W 83rd street. due to sidewall contamination in northwest corner, they will install one more temporary well in northwest corner. as no further excavation possible, regenox has applied and as consultant will install temporary well in contaminated zone, approved Ivy's request to backfill excavation, to prevent any accident. asked her not to put concrete slab until the department reviews groundwater analyticals and endpoint soil analyticals for samples from southern excavation.

04/30/08–Hiralkumar Patel. received sample analytical for endpoint soil and groundwater samples taken from southern excavation and groundwater analyticals for sample from northern excavation. no contamination found in endpoint soil samples from southern excavation. minor contamination found in groundwater sample from southern excavation. found some contamination in groundwater sample from northern excavation (area of previous tank location).

| | | | |
|------------------------|--------------------|-------------|-------|
| | N. Excavation GW-1 | Xylene | 1,394 |
| 1,3,5-Trimethylbenzene | 426 | Naphthalene | 196 |

as per Ivy, groundwater sample from north excavation was taken at same location where previous water sample taken after tanks removed. compared to earlier analyticals, found low contamination in recent groundwater sample.

sent email to Ivy approving backfilling of each excavations, as no further excavation possible. asked Ivy to submit RAP, based on endpoint sample analyticals, to address remaining contamination. asked Ivy to hold any concrete floor work inside basement until gets approval for RAP (as requires vapor barrier and possibly SSDS).

received message from Ivy. spoke with Ivy. they will use ORC and will collect groundwater samples, from all existing well and one temporary well that they will install in northwest corner, after a month. and based on that analyticals, may requires further work.

Ivy mentioned that there is thick layer of clay which is holding contamination in sidewalls. asked Ivy to include this information in report and as soil has high contamination, even with clean groundwater sample after a month, the department may

requires monitoring of groundwater for a year and have quaterly samples collected.

05/01/08–Hiralkumar Patel. received message from Ivy.

05/05/08–Hiralkumar Patel. spoke with Ivy. she inquired about what guidelines should be used in reference to backfill material. asked Ivy to use TAGM. Ivy also asked whether crushed stone be used as backfill near footings. Ivy sampled some backfill soil and found five SVOC compounds over TAGM limit (highest was 3600 ppb). Ivy asked whether this soil can be used as backfill (as no VOCs, PCBs, Pesticides found).

discussed with DEC Austin regarding use of crushed stone for backfilling. Austin asked to consult with NYC DOB as they regulates backfilling at any site. Austin also mentioned that as only SVOCs found slightly over limit and as SVOCs generally stick with soil, he approved to use such soil, but again after consulting with NYC DOB (in reference to type of soil).

06/06/08–Hiralkumar Patel. received message from Mr. Sharma from UTB.

Mohan Sharma UTB PH. (516) 326–1160 Ext. 106 email: msharma@utb1.com

spoke with Mr. Sharma. he asked to close the case based on decrease in groundwater contamination from starting of this case. explained to Mr. Sharma that there is still some contamination left in sidewalls and PW Grosser is using ORC to treat that contamination. to know effectiveness of ORC and to confirm containment of contamination in soil itself and not impacting groundwater anymore, the department requires groundwater monitoring. asked Mr. Sharma to submit report for work done till date.

06/26/08–Hiralkumar Patel. received remedial action report. abstract:

– neither the current manager nor the owners have stored or dispensed petroleum products at the site – surficial geological materials at the site consist of approx. one ft of backfill below a concrete slab. a native clay layer was encountered below the backfill and was overlying silty sands – the water table was encountered within the silty sands – performed excavation in two different areas: northern excavation and southern excavation – the northern excavation was approx. 60 ft in length by 40 ft in width and the southern excavation was approx. 20 ft in diameter – the northern excavation includes the areas adjacent to the former USTs – both the northern and southern excavations were excavated to groundwater which was encountered between the depths of 5–7 ft below the concrete slab of basement floor – the northernmost portion of northern excavation was approx. 9–10 ft bg – removed approx. 8,086 gal of free product/water during removal of impacted soils – applied Regenox – in order to determine the effectiveness of chemical application, collected four rounds of groundwater samples – one partially exposed fill line was observed along the length of the western wall during excavation activities – three temporary monitoring wells (TW–1 and TW–2 in northern excavation and TW–3 in southern excavation) were installed, which will supplement the already existing three monitoring wells (MW–1, MCW–1 and MCW–2) – monitoring wells were strategically installed in the groundwater flow direction at the site (west–northwest) <----- – temporary wells were installed to depth of 7 ft bg; wells consisted of 6 ft of screen and 2 ft riser which allowed for the screened zone to be approx. 3 ft into water table <---- – groundwater sample was collected from within the excavation pits after visible contaminated soil removed and before application of Regenox – first round of groundwater samples collected two weeks after application of Regenox; no floating product observed in any well – based on analytical result of first round of groundwater sampling, TW–1 and TW–2 were sampled on weekly basis to monitor degradation of residual contamination – found contamination in endpoint samples from northwest corner NW–1 and WW–1 (analyticals listed above) – NW–1: north wall of the northern excavation was excavated to average of approx. 2 ft from the building's outer brick wall; north wall could not be excavated further due to exposed bedrock at the western portion of the wall and a water main at the

eastern portion of the wall; excavation in this location was to the water table with the exception of the northernmost section which was excavated below the water table to approx. 9–10 ft bg; small area (approx. 20 linear ft) of soil remains on the north wall and was the location of the soil collected for sampling – WW–1: soil remaining in the north portion of western sidewall in northern excavation could not be further excavated due to the electric panel and two structural columns

summary:

– found high VOC contamination in soil endpoint samples from northern and northwestern sidewall in northern excavation (previous tank location area) – sidewall from northern section of excavation was taken from soil left adjacent to brick wall (due to structural stability reasons) – monitoring well MW–1 is located downgradient from the northern sidewall sampling location and during well installation, no soil contamination found. no groundwater contamination found from MW–1 – well MCW–2 is located in area of northwestern sidewall sampling location (where contamination found), but no contamination found in recent groundwater sample from MCW–2 – no downgradient well from northwestern sidewall, where contamination found in sidewall samples

discussed with DEC Vought. he mentioned that to confirm natural attenuation of contamination, groundwater must be monitored for pH, temp., dissolved oxygen and RedOx potential.

07/11/08–Hiralkumar Patel. spoke with Mr. Sharma at UTB. asked him to sample all wells again for VOCs and SVOCs along with following parameters: pH, temperature, dissolved oxygen and RedOx potential. sent email to Mr. Sharma, Ivy (at PW Grosser) and Mr. Ravner (owner) requiring the same.

07/28/08–Hiralkumar Patel. received closure letter from Ivy. they sampled monitoring wells MW–1, MCW–1, TW–1 and TW–2. wells MCW–2 and TW–3 were destroyed during backfilling. no contamination found in sample analyzed. dissolved oxygen was found more than 3 mg/l in each wells and RedOx potential was more than zero.

07/30/08–Hiralkumar Patel. discussed with DEC Vought. as no further excavation possible in any area and no groundwater contamination found in wells during recent sampling and based on DO, pH and RedOx potential values, Vought suggest to close the case.

case closed. NFA sent to Mr. Ravner. letter emailed to Mr. Ravner, Ivy at PW Grosser and Mr. Sharma at UTB.

Map Identification Number 98



215875; 136 W 75 STREET

136 W 75 STREET

NEW YORK, NY

Spill Number: 0914061

Close Date: 03/13/2009

TT–Id: 520A–0248–768

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 862 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: 136 W 75TH ST

Revised zip code: 10023

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: ERT DESK – CON EDISON Spiller Phone:
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: Caller Phone:
 DEC Investigator: DMPOKRZY Contact for more spill info: ERT DESK Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/08/2009 | | UNKNOWN | | | | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 1.00 | GALLONS | 0.00 | GALLONS | UTILITY |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 99 **140 W 75TH ST** **Spill Number: 9513823** **Close Date: 02/11/2003**
 140 W 75TH ST MANHATTAN, NY TT-Id: 520A-0092-279

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 889 feet to the WSW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: UNKNOWN Spiller Phone:
 Notifier Type: Local Agency Notifier Name: FIRE HAZMAT Notifier Phone: (917) 769-0483
 Caller Name: MS BAILEY Caller Agency: DEP Caller Phone: (718) 595-6700
 DEC Investigator: TOMASELLO Contact for more spill info: MR KELLER Contact Person Phone: (917) 769-0483

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 01/31/1996 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|--------------------|------------------|---------|--------------------|---------|----------------------|
| MERCURY | HAZARDOUS MATERIAL | 1.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

DEP NOTIFIED BY FIRE DEPT THAT ABOUT 2 OZ MERCURY SPILLED AT APT DWELLING CIRCUMSTANCES AND CLEANUP STAUUS UNKNOWN

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 100 **W 83RD ST& CENT PARK WEST** **Spill Number: 8907311** **Close Date: 10/24/1989**
 W 83RD ST& CENT PARK WEST NEW YORK CITY, NY TT-Id: 520A-0102-143

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 898 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: W 83RD ST / CENTRAL PARK W
 Revised zip code: 10024

| | | |
|----------------------------------|------------------------------|------------------------------|
| Source of Spill: UNKNOWN | Spiller: | Spiller Phone: |
| Notifier Type: Police Department | Notifier Name: | Notifier Phone: |
| Caller Name: OFFICER CATHY BRADY | Caller Agency: NYCPD | Caller Phone: (212) 374-5580 |
| DEC Investigator: TOMASELLO | Contact for more spill info: | Contact Person Phone: |

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/24/1989 | 10/24/1989 | UNKNOWN | UNKNOWN | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN MATERIAL | OTHER | -1.00 | UNKNOWN | 0.00 | UNKNOWN | SOIL |

Caller Remarks:

WATER MAIN BROKE, NYCPD, NYCFD ON SCENE, STREET IS BLOCKED OFF, CLEAN UP & TESTING FOR ASBESTOS & HAZARDOUS MATERIALS WILL BE DONE.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 101 **MICHAEL DONOVAN**
 175 WEST 76TH ST

MANHATTAN, NY

Spill Number: 1306921

Close Date: 10/08/2013
 TT-Id: 520A-0293-318

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 901 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Other
 Caller Name:
 DEC Investigator: HRPATEL

Spiller: FORMER DRY CLEANERS
 Notifier Name:
 Caller Agency:
 Contact for more spill info: MICHAEL DONOVAN

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (718) 974-3373

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/01/2013 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|---------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DRY CLEANING FLUIDS | OTHER | 0 | UNKNOWN | 0 | UNKNOWN | SOIL |

Caller Remarks:

while removing dry cleaning equipment loss occurred to sidewalk.

DEC Investigator Remarks:

10/02/13-Hiralkumar Patel. 1:34 PM:- left message for Mike. 1:38 PM:- received call from Mike. he lives on fourth floor of the building. he mentioned that dry cleaning facility on ground floor was closed for about six months and currently contractor is removing equipments. Mike mentioned that unknown amount of dry cleaning fluid spilled while moving equipments and there is strong odors in building. Mike is concernd about health impact to his family. 2:30 PM:- visited site with DEC Mahat. its 15 story mixed use building with basement. met with Mike and Fidel Colonio (building super). Fidel mentioned that yesterday around 10 AM, they noticed strong chemical odors in building for about two hours. he stated that odors originated from a out-of-business dry cleaner located along Amsterdam Ave. Fidel immediately informed building management about the odors. he was asked to open lobby doors on all floors for ventilation. odor level reduced after two hours.

inspected building's main lobby and Mike's apartment on fourth floor. no odors noted in building. found chemical odor at the door of the dry cleaner. the dry cleaner was closed and there was no access for inspection. inspected basement. found chemical odors only in water main room which is located just beneath the dry cleaner.

spoke with David Goldberg at management office. informed him about chemical odors in building and complaints from tenants. asked him to set up ventilation system inside the dry cleaner shop immediately to prevent any more accumulation of odors inside the building. Mr. Goldberg mentioned that outgoing tenant hired AARCO Environmental to remove dry cleaning machinery.

spoke with Steve at AARCO Environmental. he mentioned that AARCO Environmental was hired by building management and not by the tenant. he confirmed that there was odors during removal operation. machine is partially removed.

found two vent ducts in backyard of the building. Fidel mentioned that one vent duct, which ends at roof top, belongs to restaurant and the other vent duct, which ends in backyard close to first floor level, belongs to dry cleaner.

spoke with Mr. Goldberg. he mentioned that Bestway will install ventilation by tonight.

spoke with Shalom at Bestway, who is responding this evening to set up ventilation system inside the dry cleaner. informed him that system must run continuously until its removal is approved by the department.

met with Mike, before leaving the site. he confirmed that situation is much better compared to yesterday. his wife has scheduled a physical checkup, due to possible adverse effect of chemical vapors in building.

during inspection, noted an active fill port and vent pipe in front of dry cleaner.

Michael Donovan Apt. 4B Ph. (718) 974-3373 email: mike.donovan.design@gmail.com

Lichter Real Estate Number One, LLC.

property owner c/o Lichter & Lichter, L.P. 850 West 176th Street New York, NY 10033 Attn.: Claire Eisenberg

property manager Ph. (212) 927-7088 email: alflichter@yahoo.com

David Goldberg Lichter & Lichter, L.P. Ph. (212) 927-7088 email: alflichter@yahoo.com

Fidel Colonio

building super PH. (212) 787-3054

Steve AARCO Environmental Ph. (631) 586-5900

Shalom Asbestway Abatement Corp. PH. (718) 858-2600

(917) 361-8882 (C)

7:25 PM:- received message from Shalom. they finished installation of air scrubbers in the building.

10/04/13-Hiralkumar Patel. alternate address: 341-347 Amsterdam Avenue, 175-179 W 76th Street

no other spills found.

PBS #: 2-609418. as per PBS record, the site has one 5,000 gal #6 oil AST on saddles. the PBS registration expired on 12/26/2012.

9:30 AM:– visited site. met Fidel. he mentioned that total five air scrubbers installed in the building: one inside the dry cleaner, one in water main room in basement and one each on 4th floor, 6th floor and 9th floor. exhaust from all air scrubbers discharge into backyard. air scrubber in dry cleaner is connected to vent duct from the dry cleaner. no odors noted in main lobby, in water main room or at dry cleaner door. no access to the dry cleaner.

11:20 AM:– spoke with Mr. Goldberg. informed him about expired PBS registration. he mentioned that the building is using 5,000 gal #6 oil (which will be converted to #2 oil in spring of 2014) tank. he will check with building manager regarding registration renewal. Mr. Goldberg also mentioned that there is another tank inside the dry cleaner which was used for steam generation as part of dry cleaning process. informed Mr. Goldberg that the second tank, on the site, is not registered. he stated that he saw tank registration for dry cleaner tank and will provide registration number.

asked Mr. Goldberg to run scrubber continuously until the project is over and confirmed no more issues in building. also asked him not to paint any part of dry cleaner store prior to the Department's inspection, as need to confirm condition inside the store.

11:53 AM:– spoke with Heiki at AARCO. she confirmed that all machinery and dry cleaning related items were removed yesterday. she mentioned that there was no spill, but odors were generated from the machine itself, during removal.

discussed with DEC Nirangan Gandhi. he mentioned that the department requires submission of Notice of Equipment Shutdown prior to removal of dry cleaning equipment. Mr. Gandhi checked database and could not find registration of the dry cleaning facility at the site. he asked for joint inspection by spills and dry cleaning section. he also mentioned that NYC DEP dry cleaning unit may be informed.

DEC Benedicto Loreda of dry cleaning section will join in inspection.

1:26 PM:– spoke with Mr. Goldberg and scheduled a site inspection at 2:30 PM on 10/08/13. informed Mr. Goldberg that the department requires presence of representative of building owner/manager and project manager from AARCO Environmental, during the site inspection.

1:54 PM:– discussed case with NYS DOH Mike Hughes. due to short period of time when vapors noted inside the building, absence of odors in building and corrective actions taken including removal of source and installation of air scrubbers, NYS DOH does not require any action at this time. future investigation(s) of indoor air may be required based on further inquiries, if received.

3:03 PM:– sent email to NYSDOH Hughes and NYCDOH D'Andrea including copy of spill report and available pics.

3:05 PM:– sent email to DEC Gandhi and DEC Loreda including copy of spill report and available pics.

10/08/13–Hiralkumar Patel. 2:10 PM:– visited site with DEC Mahat and DEC Loreda. met Joshua Schwartz (management representative), Steve (AARCO) and Fidel. inspected dry cleaner location. no odors found inside the store. no signs of spill noted inside the store. DEC Loreda asked Steve to submit disposal manifests for solvent and dry cleaning machine. he also asked to submit required paper work reference to registration and closure of dry cleaning facility.

inspected 4th floor. no odors noted in lobby. spoke with lady in Mike's apartment, who confirmed no odors.

inspected basement. no odors noted in water main room. no chemical odors noted in sewer trap pit, located inside the water main room.

site has one 5,000 gal AST on saddles, inside a secondary vault with access. the tank is located along southern foundation wall, along W 76th Street. found oil stain on tank wall, but no odors noted inside the tank room. the fill port is at the curb along W 76th St. vent pipe is located in alley, along eastern edge of property, behind the alley door. as vent pipe is not visible from the fill port location, suggested Mr. Schwartz to relocate it.

searched for other tank, associated with fill/vent located outside the dry cleaner. no other tanks found at the site. Mr. Schwartz and Fidel does not know about previous tank. asked them to seal the fill port, located in front of the dry cleaner, to prevent misdelivery.

based on observations during site visits and information available to date, case closed.

Map Identification Number 102 **BROKEN DUCT FOUND IN EXCAVATION** **Spill Number: 0801224** **Close Date: 07/29/2008**
 52 WEST 74TH STREET MANHATTAN, NY TT-Id: 520A-0214-961
 52 W. 74TH ST

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 939 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: ERTSDESK – CON EDISON Spiller Phone:
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: Caller Phone:
 DEC Investigator: RWAUSTIN Contact for more spill info: ERTSDESK Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 04/30/2008 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | 2.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

FOUND IN EXCAVATION , WONT MAKE 2 HOUR CLEAN UP.

211117

DEC Investigator Remarks:

211117. see eDocs

7/22/08: Due to possible third party responsibility, spill referred to R. Austin for re-assignment and follow up. (JHO)

7/29/08 – Austin – Product traced back to fuel oil fill line at 52 W. 74 St. According to con Ed, owner repaired the line, and Con Ed completed cleanup of spilled 2.5 gals. of fuel. closed – end

Map Identification Number 103 **135 WEST 74TH ST**
 135 WEST 74TH ST

MANHATTAN, NY

Spill Number: 0102621

Close Date: 06/11/2001
 TT-Id: 520A-0091-227

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 947 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Local Agency
 Caller Name: CHERELLE MAYFIELD
 DEC Investigator: JHOCONNE

Spiller: SAME – CON ED
 Notifier Name: MR WILLIAMS
 Caller Agency: NYC DEP
 Contact for more spill info: MR WILLIAMS

Spiller Phone:
 Notifier Phone:
 Caller Phone: (718) 595-6777
 Contact Person Phone: (212) 442-7090

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 06/08/2001 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SEWER |

Caller Remarks:

CALLER STATES THAT CONTACT PERSON IS FROM DOT STATING THAT CON ED IS DUMPING OIL IN SEWER LINE AT LOCATION.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL DEC INSPECTOR'S NOTES Tried to contact Kay Williams, Dispatcher said there was no one by that name at that number. Left my name and number for call back. DEP dispatcher corrected the name to Mr. Williams, called him but he was out to lunch, I left a message. Contacted ERT Kessler, he has no report of incident at that location but he will call Manhattan #9 crew.

Call back from Ray Lo ERT- Crew got summons from DOT for improperly closing the street. They have a vactor on scene which is pumping debris and water from structure.

Called DOT and asked for Mr. Williams, he will not be in all week.

Called ERT- spoke with Bill Capune. He was at scene , crew had removed transformer and were vactoring debris from vault, no oil spilled in vault. Crew had street and sidewalk blockaded. City DOT worker walked inside barricade, he wa stold he could not enter work zone without hard hat. He wrote them a tickrt for closing street/sidewal without a permit.

No spill.

Map Identification Number 104 **MANHOLE #25889** **Spill Number: 9910327** **Close Date: 02/06/2004**
 **AMSTERDAM AV & 80TH ST** **MANHATTAN, NY** **TT-Id: 520A-0101-348**

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 949 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: AMSTERDAM AV / W 80TH ST
 Revised zip code: 10024

| | | |
|---------------------------------|--|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Affected Persons | Notifier Name: JUAN MEJIS | Notifier Phone: (212) 580-6763 |
| Caller Name: RICHARD ROACH | Caller Agency: CON EDISON | Caller Phone: (212) 580-6763 |
| DEC Investigator: COMENALE | Contact for more spill info: RICHARD ROACH | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 11/29/1999 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 10.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

CONED SPILL #129115 / WORKERS DISCOVERED 10 GALS OF PETROLEUM FLOATING ON 10 GALS OF WATER IN A MANHOLE – CLEAN UP WILL BEGIN PENDING TEST RESULTS

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 105 **VACANT BUILDING** **Spill Number: 0604606** **Close Date: 10/27/2010**
 36 WEST 74TH ST. MANHATTAN, NY TT-Id: 520A-0097-570

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 964 feet to the SSW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: VINNY LOVARI – VACANT BUILDING Spiller Phone: (718) 708-3425
 Notifier Type: Local Agency Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: Caller Phone:
 DEC Investigator: RVKETANI Contact for more spill info: VINNY LOVARI Contact Person Phone: (718) 708-3425

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 07/24/2006 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

DURING TANK REMOVAL CONTAMINATED SOIL WAS DISCOVERED ON TOP OF CEMENT SLAB: OIL WAS MIXED IN WITH SAND:

DEC Investigator Remarks:

08/2/06–Zhune Spoke to V. Lovari from Island Tank. Soil samples were performed (1 bottom, 2 end–points, 2 sites). 08/2/06 sent CSL to Owner Mr. Bill Carr at: 236 West 26 Street, Suite 605 New York, NY 10001

08/10/06–Vought–Received message from Dan (Alliance Builders 212–463–9229) looking for contact info for DEC Zhune. Vought returned call and provided information and Dan indicated that he was already able to contact DEC Zhune.

8/6/10 – Raphael Ketani. I received this case from Jeff Vought who transferred to the Superfund, Brownfield Unit in Region 2 DER.

The spill took place on 7/24/06 and consisted of the discovery of contaminated soil on top of a concrete slab when a UST was removed. The UST had contained an oil and sand mix inside. The contractor was Vinny Lovari of Island Tank (718) 967–9424/cell (347) 416–9961.

The site location is 36 West 74th Street, Manhattan. The block and lot are 1126 and 52. The property was sold to the Bikuben Foundation New York, Inc., c/o Holland & Knight, LLP, 195 Broadway, NY, 10007 on 10/11/05.

I could not find a PBS registration, nor any additional cases with the above address. There is no paper file. The E–docs contain just the CSL. I tried the Alliance Builders number, but it was out of service.

As there has been no response from the owner regarding the cleanup of the soil contamination, I sent a standard followup letter to the Bikuben Foundation.

8/19/10 – Raphael Ketani. Vinny of Island Tank (347) 416–9961 called me and told me that he will look for the file folder that contains the documentation showing that the cleanup was completed.

9/21/06 – Raphael Ketani. Michael Di Paolo (212) 513–3319 of Holland and Knight (attorneys for the Bikuben Foundation) called. He said that he had represented the Bikuben Foundation in the past and he was trying to find his client in order to respond to the DEC's letter. He asked that I give him more time to locate them and get the necessary cleanup documentation to the DEC. We agree to a deadline of 9/28/10.

10/25/10 – Raphael Ketani. Today I received the tank replacement and soil investigation report dated July 19, 2006 from Island Environmental Tank. The report was sent to me by Mr. Di Paolo. The report contained an affidavit of tank removal, the full soil analytical report, and the tank closure report. I began my review.

10/27/10 – Raphael Ketani. I finished my review of the tank replacement and soil investigation report. The soil end point analytical results were almost entirely non–detect. There were only two benzene hits that were very slightly above the TAGM limits.

As the data in the tank removal and soil investigation report indicates that virtually all of the oil contamination had been removed, I have determined that there is no threat to the public or the environment. Therefore, I am closing the spill case.

Map Identification Number 106 **MANHOLE 29424**
 W 75TH ST & CEN PRK W

Spill Number: 9808719 **Close Date: 11/04/2003**
 MANHATTAN, NY TT-Id: 520A-0092-965

MAP LOCATION INFORMATION
 Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 965 feet to the S

ADDRESS CHANGE INFORMATION
 Revised street: W 75TH ST / CENTRAL PARK W
 Revised zip code: 10023

| | | |
|--|---|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: | Spiller Phone: |
| Notifier Type: Affected Persons | Notifier Name: MR MCHUGH | Notifier Phone: (212) 338-3352 |
| Caller Name: JOE DEVOTI | Caller Agency: CON EDISON | Caller Phone: (212) 580-6763 |
| DEC Investigator: JHOCONNE | Contact for more spill info: JOE DEVOTI | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/14/1998 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 1.00 | GALLONS | 0.00 | GALLONS | GROUNDWATER |

Caller Remarks:

APPROX 1/2 GAL OF WATER IN MAN HOLE WITH ONE QUART OF UNK TYPE OIL ON IT. SAMPLE TAKEN FOR TESTING. 120500 CON ED SPILL NUMBER.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL e2mis 120500

10/14/98 00:40 MAXWELL(RW) REPORTS WHILE CHECKING MANHOLES FOR BLOWN LIMITERS FOUND SPILL OF 1 QUART OF UNKOWN OIL MIXED WITH 1/2 GALLON OF WATER IN MH29424 LOCATED S/W/C W 75 ST & C.P.W. SPILL APPEARS TO BE SOME TYPE OF OIL. THE SPILL IS CONTAINED, THERE WAS NO ENTRY TO ANY SEWERS OR WATERWAYS. THERE ARE NO SEWER CONNECTIONS IN THE MANHOLE AND NO VISIBLE CRACKS. MR MAXWELL INSTALLED PIGS AND DIAPERS AROUND SPILL, TOOK SAMPLE AND INSTALLED SPILL TAG #17209. THE STRUCTURE POSSIBLY CONTAINES PILC CABLE DISTRIBUTION FEEDER CABLE, BUT NO LEAKS FROM THE DISTRIBUTION FEEDER CABLES WERE OBSERVED. SPILL WAS REPORTED TO MCHUGH IN THE CONTROL CENTER AT));40 HRS ON 10/14/98. LOGGER PGM

If this is a Con Edison manhole it contains electrical cable and splices. Many manholes have a sealed sump in the floor which is used to allow runoff when pumping the structure. A hose is place in this sump and water on the floor will flow into the sump allowing the floor to be cleaned. If cleaned prior to analysis of the fluid, the structure will be cleaned as >50 PPM and all liquid and waste will be manifested accordingly. The structure will be double washed with a degreaser, i.e. Slix. All cleaning

material and PPE will also be treated as >50. If any sludge is found within a manhole it is treated as lead contaminated and manifested accordingly. The spill identification tag will remain secured to the structure until the analysis is completed and if <500 PPM the signage will be removed. If the analysis is >499 PPM, a grid will be prepared for wipe testing the area. Until the analysis of the wipes are proven to be <10ugs/100cme2 all additional waste produced from the structure will be treated as the original analysis. If this spill occurred in a transformer vault containing a sump pump and there was a possible release, the drainpipe trap will be dismantled to determine if oil was released. Sludge found in a vault, through historical analysis, has been determined not to contain lead.

LOGGER PGM 10/14/98 03:00 hrs. Astoria Chem-Lab called Russo #45348 @ MCC #9 desk and reported that the sample taken will req 48 hrs to do analysis.

10-16-98 11:05 Cleanup complete on 10-15-98 at 13:30 hours, supervised by J.McCabe 00305. 1-quart oil removed with absorbant, mh was then double washed. No results available cleaned as 50-499 PPM. 3-55 gallon drums hazardous waste generated. NYP004019162. Tag left in place pending sample analysis. Crew: J.Rivera 16937, E.Sims 37665, and R.Calderon 19847.

10/17/98 21:37 RECEIVED LAB RESULTS AT 21:14 LAB SEQUENCE # 98-11007 AROCLOR - 1254 PCB - 9 PPM R.BRUNS # 21106

10-19-98 10:45 Tag removed 10-19-98 at 0800 hours by M.Brotko 10504.

Map Identification Number 107 **214656; WEST 75 ST AND CENTRAL PARK WEST** **Spill Number: 0814608** **Close Date: 11/25/2008**
 WEST 75 ST AND CENTRAL PARK WEST NEW YORK, NY TT-Id: 520A-0249-518

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 965 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: W 75TH ST / CENTRAL PARK W
 Revised zip code: 10023

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: ERT DESK - CON EDISON Spiller Phone:
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: Caller Phone:
 DEC Investigator: DMPOKRZY Contact for more spill info: ERT DESK Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 11/19/2008 | | UNKNOWN | | | | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| DIELECTRIC FLUID | PETROLEUM | 0 | GALLONS | 0 | GALLONS | UTILITY |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 108 **MANHOLE #2119** **Spill Number: 0112175** **Close Date: 01/12/2004**
 475 AMSTERDAM AVE MANHATTAN, NY TT-Id: 520A-0101-352

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 992 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|---------------------------------|--|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Affected Persons | Notifier Name: MR CURTIS | Notifier Phone: (212) 338-3352 |
| Caller Name: JIMMY FOX | Caller Agency: CON EDISON | Caller Phone: (212) 580-6763 |
| DEC Investigator: KMFOLEY | Contact for more spill info: JIMMY FOX | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/26/2002 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 15.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

ABOVE MATERIAL DISCOVERED AT ABOVE LOCATION ON TOP OF 5 GALLONS OF WATER. SAMPLE HAS BEEN TAKEN AND CLEANUP IS PENDING CREW RESPONSE. CON ED #141978.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was FOLEY E2MIS #141978 NOTES

Mr.V.Mirance # 58484 operating supv.cable dept. At the location of 475 W.159 & Amsterdam Ave. Was replacing transformer in TM-2119 on feeder 1m14 that is now out on OOE/2 Reports that in process of removing the transformer, found approx. 15 gallons of Unknown oil mixed with approx. 5 gallons of water. Tag #18589 was placed. Two samples taken one for PCB, and one for ID. Chain

of custody # AA-19938 Acct #F3246 No sewers or waterways affected Weather conditions did not contribute to this spill. No injuries related to this spill. No fire or smoke No private property affected Tanker and crew will be scheduled on 11:00-07:00 shift starting 03/26/02

Update 3-27-02 @ 01:50 Lab Sequence Number: 02-02530-001 Date Approved: 3/26/2002 E2 Incident Number: 141978 Date Received: 3/26/2002 Chain of Custody ID: AA19938 Date Sampled: 3/26/2002 Analysis indicates the presence of a substance similar to a lubricating oil.

Update 3-27-02 @ 02:35 Lab Sequence Number: 02-02529-001 Date Approved: 3/27/2002 E2 Incident Number: 141978 Date Received: 3/26/2002 Chain of Custody ID: AA19938 Date Sampled: 3/26/2002 Aroclor 1242 < 1.0 ppm EPA 608/8082 Aroclor 1254 < 1.0 ppm EPA 608/8082 Aroclor 1248 < 1.0 ppm EPA 608/8082 Aroclor 1260 1.1 ppm EPA 608/8082 ----- TOTAL PCB
1 ppm

UPDATE 3/27 @ 08:10 HRS Spoke to J Ligouri # 14084 and he informed me that the cleanup was completed @ 07:10 HRS. The structure was double-washed and Flushed by Environmental services because Lab results indicated less than one(1) PPM PCB's. There was no solid waste to remove. Removed Environmental tag # 18589. Cleanup Supervisor - J Liqouri # 14084 Cleanup crew - T Lynch # 10878.....J Kelly # 15634

1/12/04 Transformer replaced on 3/27/07 per 1/14/03 update to e2mis.

Map Identification Number 109

LOSS TO ROADWAY
82ND AND AMSTERDAM

MANHATTAN, NY

Spill Number: 1400018

Close Date: 05/21/2014
TT-Id: 520A-0297-775

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
Approximate distance from property: 1004 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: W 82ND ST / AMSTERDAM AVE
Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
Notifier Type: Other
Caller Name:
DEC Investigator: SXMAHAT

Spiller: TIFFANY CHAG - UNKNOWN
Notifier Name:
Caller Agency:
Contact for more spill info: TIFFANY CHAG

Spiller Phone:
Notifier Phone:
Caller Phone:
Contact Person Phone: (617) 943-0005

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 04/01/2014 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | SOIL |

Caller Remarks:

loss to roadway, oily sheen, near construction site pouring down the road

DEC Investigator Remarks:

4/1/14: Mahat

DEC Mahat left a voice message to Ms. Tiffany Chang (617.943.0005) inquiring more about the spill.

5/21/14: Mahat Spilled was on the roadway. No further information could obtained from the contact information provided. Spill will be close in the data base.

Map Identification Number 110

MANHOLE 13704

Spill Number: 0009011

Close Date: 04/11/2001



76TH/AMSTERDAM

MANHATTAN, NY

TT-Id: 520A-0095-746

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 1007 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: W 76TH ST/AMSTERDAM AV
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Affected Persons
 Caller Name: ANTHONY NATALE
 DEC Investigator: KMFOLEY

Spiller: UNKNOWN - Unknown
 Notifier Name: ANTHONY NATALE
 Caller Agency: CON EDISON
 Contact for more spill info: CALLER

Spiller Phone:
 Notifier Phone: (212) 580-6763
 Caller Phone: (212) 580-6763
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 11/03/2000 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN MATERIAL | OTHER | 30.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

DISCOVERED A GEL LIKE SUBSTANCE IN A MANHOLE CLEAN UP IS PENDING TEST RESULTS. CON ED#143237

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was FOLEY DEC INSPECTOR'S NOTES Ref.# 134236, DEC #0009010 Results PCB 1ppm J& D Waterproofing.

CON ED E2MIS REPORT 11-03-00

This service is approx. 50 feet from SB13705 (See Incident #134236) for reference.

Approx. 30gals. of unknown substance in approx. 2ft of mud and debris and approx. 10 gal. of water in service box SB 13704 located first service box east of Amsterdam Ave. and West 76th St. There was a contractor cleaning the building and using a gel type substance. The contractor packed up and left before MR. Driskill could get his identification or the type of substance used.

The unknown substance is approx. 30 gal. of mud (paint, debris and gel). there was smoke/steam involved when discovered. There is standing water but no visual movement. There is no sump pump running and a sewer connection connection and concrete sump cannot be verified.

Contractor has returned to this location and is cleaning again. The unknown substance has been reported running down the street and around the corner by our field crews.

Update Notified the DEP hazmat Team of the subject events and they will respond. Requested that they try to protect the sewer drains and our service boxes and manholes from becoming contaminated with this unknown substance. We also requested that the service boxes be barricaded until Clean Harbors starts the cleanup.

10:35 Received lab results of the oil ID extraction of submitted sample yielded an insufficient amount of material for an oil identification analysis.

PCB <1.0ppm X-ray fluorescence and microscopic spot testing indicate that their submitted material consist mainly of silica. Significant amount of calcium carbonate titanium, iron, zinc, lead and organic matter were also present.

Flash Point 201 Deg. F

The following information is from the Clean Harbors Work Sheet. 2 service boxes cleaned. Disposal: six solid drums, weight 1,800lbs.

Map Identification Number 111**MANHOLE 13705**

76TH ST/AMSTERDAM

MANHATTAN, NY

Spill Number: 0009010**Close Date: 04/11/2001**

TT-Id: 520A-0095-747

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 1007 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: W 76TH ST/AMSTERDAM AV

Revised zip code: NO CHANGE

| | | |
|---------------------------------|-------------------------------------|--------------------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN – Unknown | Spiller Phone: |
| Notifier Type: Affected Persons | Notifier Name: ANTHONY NATALE | Notifier Phone: (212) 580-6763 |
| Caller Name: ANTHONY NATALE | Caller Agency: CON EDISON | Caller Phone: (212) 580-6763 |
| DEC Investigator: KMFOLEY | Contact for more spill info: CALLER | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 11/03/2000 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| UNKNOWN MATERIAL | OTHER | 4.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

DISCOVERED A GEL LIKE SUBSTANCE IN THE MANHOLE. CLEAN UP IS PENDING TEST RESULTS CON ED#134236

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was FOLEY DEC INSPECTOR'S NOTES

Reference #0009011 (E2MIS #134237) Results<1ppm PCBs

CON ED E2MIS REPORT 11-03-00

Approx. 4gals. of unknown substance and approx. 2gals. of water in service box SB13705 located along the building line 170-174 West 76 St. Contractor cleaning building 170 W. 76 Street using a gel type substance. The contractor hosed the gel off the building and then hosed the street down which is the possible source of the unknown substance in our service box. The contractor left before Mr. Driskill could get his identification or the type of the substance used. The unknown substance is approx. 4gals. of paint, debris and gel. There was smoke/steam involved when discovered. No evidence of any release to sewer or waterway.

11-03-00 13:35hrs. Contractor has returned to this location and is cleaning again.

Update 14:10hrs. ERT Akbar notified DEp Hazmat team of the subject events and they will respond and deal with the contractor. The Environmental Desk updated #9 Supervisor Jim McCutchen and requested that he inform our field crews that the DEP was on the way and also requested that they try to protect the sewer drains and our service boxes and manholes from becoming contaminated with this unknown substance.

Update 20:40 hrs. DEP rep Stanley Siebenberg gave his permission for Con Ed to barricade the service boxes and return at 14:00hrs on 11-04-00 for the cleanup by Clean Harbors.

11:16 Lab Seq#00-10583-001 The oil extracted from the soil does not match any of our standards and may be too degraded to make an identification. Aroclor 1254 PCB 1ppm

Update 11-06-0 Clean harbors Work Sheet 2 service boxes cleaned. Break down equipment and move in between each service box. Depart site at 11:15pm Disposal: 6 solid drums, weight 1,800lbs

Map Identification Number 112 **214793; 141-150 CENTRAL PARK WEST** **Spill Number: 0814637** **Close Date: 02/17/2009**
 141-150 CENTRAL PARK WEST NEW YORK, NY TT-Id: 520A-0248-446

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (4)
 Approximate distance from property: 1020 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|---------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: ERT DESK - CON EDISON | Spiller Phone: |
| Notifier Type: Responsible Party | Notifier Name: | Notifier Phone: |
| Caller Name: | Caller Agency: | Caller Phone: |
| DEC Investigator: DMPOKRZY | Contact for more spill info: ERT DESK | Contact Person Phone: (212) 580-8383 |

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 12/04/2008 | | UNKNOWN | | | | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | UTILITY |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 113 215460; 424-246 AMSTERDAM AVENUE

 424-246 AMSTERDAM AVENUE NEW YORK, NY

Spill Number: 0914003

Close Date: 03/25/2009
TT-Id: 520A-0248-463

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)
Approximate distance from property: 1037 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
Notifier Type: Responsible Party
Caller Name:
DEC Investigator: DMPOKRZY

Spiller: ERT DESK - CON EDISON
Notifier Name:
Caller Agency:
Contact for more spill info: ERT DESK

Spiller Phone:
Notifier Phone:
Caller Phone:
Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/06/2009 | | UNKNOWN | | | | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 2.00 | GALLONS | 0.00 | GALLONS | UTILITY |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 114 COMMERCIAL/DWELLING

 424 AMSTERDAM AVE NEW YORK, NY

Spill Number: 0708720

Close Date: 12/11/2007
TT-Id: 520A-0211-130

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 1038 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
Notifier Type: Local Agency
Caller Name:
DEC Investigator: RMPIPER

Spiller: UNKNOWN
Notifier Name:
Caller Agency:
Contact for more spill info: 11TH BATTALION CHIEF

Spiller Phone: () -
Notifier Phone:
Caller Phone:
Contact Person Phone: (212) 570-4311

| | | | | | | | |
|------------------|---|----------------|-------------------------|---------|---------------------|---------|----------------------|
| Category: | Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters. | | | | | | |
| Class: | Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency | | | | | | |
| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
| 11/10/2007 | | UNKNOWN | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | | PETROLEUM | 50.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

CALLER FROM APPROVED OIL RECEIVED NOTIFICATION FROM FIRE DEPARTMENT OF LARGE SPILL AT ABOVE LOCATION. APPROVED OIL HAS NOT MADE A DELIVERY THERE SINCE THURSDAY 11/8 AND THERE HAS BEEN NO EVIDENCE OF A SPILL UNTIL TODAY. APPROVED OIL CLAIMS NO RESPONSIBILITY. SPILL MOSTLY CONFINED TO BASEMENT, BUT SOME HAS GONE OUT INTO THE STREET. FIRE DEPT ON SCENE.

DEC Investigator Remarks:

DEC Piper received call off hours. I contacted Battalion Chief and he stated oil was on sidewalk and into street. I informed him that I will have approved oil clean up spill. I called Vincent and instructed him to clean spill immediately. He obliged. Later I recieved a call from the Chief. He drove by site and it is cleaned up. closed.

Map Identification Number 115

HOUSE

67 WEST 73RD ST

NEW YORK, NY

Spill Number: 0713512

Close Date: 03/27/2008

TT-Id: 520A-0214-810

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 1040 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING

Notifier Type: Other

Caller Name:

DEC Investigator: SFRAHMAN

Spiller:

Notifier Name:

Caller Agency:

Contact for more spill info: ROB HILL

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: (718) 579-3413

| | | | | | | | |
|-----------|---|--|--|--|--|--|--|
| Category: | Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters. | | | | | | |
| Class: | Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency | | | | | | |

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 03/22/2008 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | 10.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

Trying to make delivery and the oil came out of vent after delivering 13 gallons. Unable to access the basement of the apartment building. Spill is being cleaned.

DEC Investigator Remarks:

03/24/08 I spoke with Millie Lopez of Castle Oil. She said they cleaned the spill which came out the vent, but not sure if there was any release in the basement. Castle and myself left messages for the home owner requesting call back. sr. 03/27/08 Spoke with Castle Oil, tank room was inspected by Castle crew, there was no oil spill in the tank room. No drain/soil impacted. Spill closed.

Map Identification Number 116



BROWNSTONE

52 W. 85TH ST APT 1R

MANHATTAN, NY

Spill Number: 9712452

Close Date: 10/09/2003

TT-Id: 520A-0098-751

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1052 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: 52 WEST 85TH ST
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Citizen

Caller Name: COMERFORD, KATHLEEN

DEC Investigator: RWAUSTIN

Spiller: UNKNOWN

Notifier Name:

Caller Agency: CITIZEN

Contact for more spill info: KATHLEEN

Spiller Phone:

Notifier Phone:

Caller Phone: (212) 787-9803

Contact Person Phone: (212) 787-9803

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/03/1998 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

CALLER STATES THAT THE NEIGHBORS OIL IS LEAKING INTO HER VAULT CAUSING STRONG ODOR . CALLER REQUEST A CALL BACK

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was AUSTIN KATHY H:212-787-9803 W:212-250-2789

2/7/98 mmm:MULQUEEN & SACCACHIO INSPECTED LOCATION AND SURROUNDING NEIGHBORHOOD. FOUND OIL ODOR IN FRONT BEDROOM OF 52 WEST 85TH AND TRACE OF OIL ODOR IN FRONT OF HOUSE BY HOUSE TRAP. HOUSE HAS NEW OWNERS THAT MOVED IN JULY '97. STATED THAT ODORS STARTED IN OCTOBER. HOUSE HAS NEW GAS FIRED HEATING SYSTEM IN REAR EASTERN ROOM. OLD OIL TANKS WERE LOCATED IN THE FRON WEST SIDE OF HOUSE ADJACENT OT COAL SHOOT WHICH HAS BEEN FILLED. INSPECTED #50 WITH SUPER, GEORGE. NO OIL ODORS OR OIL STORAGE IN #50. FLOOR IS SOFT IN AREA WHERE OLD TANKS USED TO BE. INSPECTED SURROUNDING HOUSES AT CURBLINE. MANY OF THE HOUSES HAVE ABANDONED FILL PORTS. DOES NOT APPEAR TO BE GROUNDWATER PROBLEM AT THIS TIME. 3/2/98 mmm: KATHY CALLED AND STATED THAT THE ODORS ARE BACK. 11:00 INSPECTED HOUSEHOLD WITH PID AND FOUND 0-2 PPM IN LIVING SPACE AND 10-15 PPM IN HOUSE TRAP. NOTICABLE FUEL OIL ODOR IN FRONT BEDROOM AND IN FRONT ROOM OF BASEMENT. HIGHEST ODORS BY HOUSE TRAP. INPSECTED #54 AND FOUND NO OIL ODORS IN HOUSE OR BASEMENT. NO PID READINGS. INSPECTED SEWERS AND FOUND THAT EACH MANHOLE HAD 10-15 PPM HEADSPACE. COULD NOT PULL MANHOLES DUE TO ALTERNATE SIDE REGULATIONS. FOUND EVIDENCE OF RECENT FUEL OIL DELIVERY IN FRONT OF #36, AND EVIDENCE OF PAST FUEL OIL DELIVERIES AT #22, & 30. TRIED TO INSPECT THE LARGER BUILDING ON CENTRAL PARK WEST AND W. 85TH BUT COULD NOT GAIN ACCESS. APPEARS THAT PETROLEUM IS ENTERING SEWERS DURING DELIVERIES, AND THAT AP HAS PROBLEM WITH HOUSE TRAP AND VENT. TOLD AP TO GET PLUMBER TO LOOK AT HOUSE TRAP AND POSSIBLY INSTALL CHECK VALVE TO BLOCK VAPORS. CALLED DEP AND SPOKE TO ALBERT GORDON WHO SEEMED TO THINK THAT THIS HAS BEEN A LONGTIME PROBLEM AND THAT THE SOURCE HAS BEEN UNDER INVESTIGATION FOR ABOUT 2 YEARS. CALLED DEP BACK ON MARCH 9TH. SAGAR WENT TO SITE IN PM AND ODORS HAD DISSIPATED. DID NOT GET ANY READINGS IN SEWER.

10/9/03 - AUSTIN - SOURCE NOT FOUND, VAPORS FROM SEWER, NO FURTHER INFO - CLOSED - ORIG. ASSIGNED TO MULQUEEN - END

Map Identification Number 117

VAULT 9190/8884/9463

200 WEST 79TH ST

MANHATTAN, NY

Spill Number: 0908602
Close Date: 11/19/2009

TT-Id: 520A-0233-932

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 1064 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

| | | |
|--|----------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: CON ED | Spiller Phone: |
| Notifier Type: Other | Notifier Name: | Notifier Phone: |
| Caller Name: | Caller Agency: | Caller Phone: |
| DEC Investigator: RWAUSTIN | Contact for more spill info: ERT | Contact Person Phone: (212) 580-8383 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 09/30/2009 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| UNKNOWN PETROLEUM | PETROLEUM | 6.00 | GALLONS | 0.00 | GALLONS | |

Caller Remarks:

contained to vault area/3 gals cleaned up/ clean up pending for remaining oil

DEC Investigator Remarks:

minor spill contained in vault – question why they waited 1 month to report?

Austin – 11/19/09 – Discovery of trans. oil in vault – cleanup done, but field workers neglected to inform Con Ed CIG until 10/30/09 – Spill cleaned up by Con Ed – See final EMIS in eDocs – spill closed – end

Map Identification Number 118 **200 W. 82ND ST**
 200 W. 82ND ST

MANHATTAN, NY

Spill Number: 9706531

Close Date: 09/02/1997
 TT-Id: 520A-0101-351

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1081 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
 Notifier Type: Citizen
 Caller Name: ROBIN RAY
 DEC Investigator: MCTIBBE

Spiller:
 Notifier Name: ROBIN RAY
 Caller Agency: CITIZEN
 Contact for more spill info:

Spiller Phone:
 Notifier Phone: (212) 724-2835
 Caller Phone: (212) 724-2835
 Contact Person Phone:

Category: Investigation indicates there was no spill.
 Class: Any Type of RP, Including No RP – DEC Field Response – Corrective Action Not Required or Not Possible

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 08/23/1997 | | OTHER | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | AIR |

Caller Remarks:

CALLER STATES THAT THE BUILDING ON AMSTERDAM AVE IS PUTTING OUT TOXIC ODOR FROM CHIMENY FLUE – MGR IS AWARE OF PROBLEM AND HAS NOT DONE ANYTHING YET – MGR STATES THAT IT WILL CLEANED UP ON TUESDAY

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIBBE CC AIR UNIT SUPER SAID IT WILL BE FIXED ON TUESDAY. REFER TO AIR UNIT AND DEP.

Map Identification Number 119 **PARKING GARAGE** **Spill Number: 9808769** **Close Date: 12/14/2000**
 348–354 AMSTERDAM AVE NEW YORK, NY TT-Id: 520A–0095–764

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1097 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|--|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: ARNOLD PENNER – REAL ESTATE INVESTMENTS | Spiller Phone: (212) 980–6000 |
| Notifier Type: Other | Notifier Name: | Notifier Phone: |
| Caller Name: BRIAN COSTELLO | Caller Agency: NAC ENVIROMENTAL | Caller Phone: (212) 219–0880 |
| DEC Investigator: SIGONA | Contact for more spill info: BRIAN COSTELLO | Contact Person Phone: (212) 219–0880 |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/14/1998 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

ABANDONED TANK FIELD AT LOCATION – SOIL SAMPLES WERE DONE AND READINGS CAME BACK HIGHER THAN THEY SHOULD BE–TANKS HAVE BEEN PREVIOUSLY ABANDONED – GEO PROB WAS DONE

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

TANK ABANDONED 6 YEARS AGO. CHANGED from Mulqueen to Sigona on 3/30/2000.

DEC Sigona conducted site investigation on September 26, 2000, and verified locations of monitoring wells and soil sampling locations. Former 4 x 550 gallon USTs closed in-place. The tanks were not registered. DEC (sigona) sent a letter to Real Estate Investments, Inc. on December 14, 2000 to close the spill. Requested registration of the USTs.

Map Identification Number 120 **NORTHEAST CORNER** **Spill Number: 9513873** **Close Date: 02/05/1996**
 COLUMBUS AVE/EAST 73RD ST NYC, NY TT-Id: 520A-0092-908

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 1126 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: COLUMBUS AVE / W 73RD ST
 Revised zip code: 10023

| | | |
|--|--------------------------------------|-----------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: UNKNOWN – Unknown | Spiller Phone: |
| Notifier Type: Citizen | Notifier Name: UNKNOWN | Notifier Phone: |
| Caller Name: JOHN BRUSEL | Caller Agency: CITIZEN | Caller Phone: |
| DEC Investigator: JMKRIMGO | Contact for more spill info: UNKNOWN | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 01/30/1996 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 1000 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

super said that fuel co made delivery of 1,000 gals fuel no oil is getting to the tank-bldg owner is a john brausco asked dec for help- info recevd via fax dec rep

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was KRIMGOLD

Map Identification Number 121 **200 WEST 76TH ST** **Spill Number: 0102998** **Close Date: 01/19/2007**
 332 AMSTERDAM AVENUE , NY TT-Id: 520A-0098-713

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1138 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|----------------------------|--|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Other | Notifier Name: MR MORAN | Notifier Phone: (212) 580-6765 |
| Caller Name: BILL MURPHY | Caller Agency: CON ED | Caller Phone: (212) 580-6763 |
| DEC Investigator: JAKOLLEE | Contact for more spill info: BILL MURPHY | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 06/18/2001 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |
| UNKNOWN PETROLEUM | PETROLEUM | 10.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

ABOVE MATERIAL REPORTED DISCOVERED AT ABOVE LOCATION 3RD PARTY TO CON EDISON. SAMPLES BEING TAKEN BY CON ED FOR PCB. UNCONFIRMED INFORMATION THAT SITE WAS A FORMER GASOLINE STATION. UNKNOWN AT TIME OF CALL WHO IS RESPONSIBLE FOR CLEANUP.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was VOUGHT Referred to Tim DeMeo for follow up (JHO 6/18/01)

Con Ed e2mis #137718:

6-18-01 @ 12:15

While working at 200 w 76 st K Watts # 19705 of construction management reports that Felix contractors while digging an excavation on customers property to install an a.c. service they discovered 10 gallons of an unknown oil & gasoline mix. Felix was working for Con Ed at the time the spill was discovered.

05/06/03 @ 9:30 – As per Jimmy Delia on 05/02/03 the clean up was completed by the contractor and 6 drums of non-haz contaminated soil was transported by Astoria Transportation for disposal.

04/12/04

TRANSFERRED FROM DEMEO TO VOUGHT. ROMMEL

10/13/06: This spill is transferred from Mr. Koon Tang to Q.Abidi. Contacted Mr. Tony Delgado at (212)580-6763 he said he will find out about the spill and he will call me back. –QA

10/25/06: Called Mr. Tony Delgado and talked to Mr. Stephen Martis he said he will find out information of spill and he will call me back. –QA

11/10/06: Called at (212)580-8383 and talked to Mr. Dave Duke (Con Edison Environmental). He said Mr. Kerry Watt, Construction Manager knows about it. He was involved in cleanup of this spill. Mr. Dave Duke already e-mail to him. Mr. Kerry Watt will be available on November 13. As soon as Kerry Watt will reply to Mr. Dave he will contact me regarding spill. –QA

11/14/06: Mr. Dave Duke called me and said he needs more time to dig out the information of the spill. In next week he will send information to me about the spill. –QA

11/16/06: Called Mr. Bharat Mukhi he said he will fax me the lab results of soil sample. –QA

11/20/06: Talked to Mr. Mike Daughtrey about spill that this spill was previous gas station it needs additional investigation. Mr. Mike will find out the owners name of the spill and he will call me back. Mr. Bharat Mukhi called me he said he will find out the name and address of the spill and he will call me back. –QA

12/13/06: I wrote a letter to Mr. Paul Wertheimer on dated 12/12/06 at the address: Jewish Community Center / The Upper West

Side, Inc. 332 Amsterdam Avenue, New York, NY 10023–8205. The Department requires additional investigation to determine if there has been an impact to groundwater and to fully delineate soil and groundwater contamination. Prepare a Work Plan and submit it for review of Department. –QA

01/12/07: This spill case transferred to J. Kolleeny. Spoke to Paul Wertheimer of Jewish Community Center in Manhattan (JCC) in mid–December, asked for info about this spill and activities associated with removal of Exxon Station from this site. He mentioned that a vapor extraction system had been installed, said he would get back to me. On Jan. 5, 2007, received letter from Mr. Wertheimer (in eDocs) stating spill of 50 gallons occurred during filling of generator storage tank in basement, spill was contained and cleaned up. Also stated there is a vapor barrier under building. I sent email back (in eDocs) saying 50–gal spill in basement is not related to this spill case, which is related to contamination from former gas station. Asked if JCC has any documentation on actions taken to address contamination from gas station – phase I & II envt'l site assessment reports, UST closure reports, etc. PW faxed me a report by AKRF, Inc. (Env't'l Consultants) addressed to Kerry O'Dowd of DEC, dated Jan. 18, 2000, with cover letter to Anthony Sigona of DEC dated May 8, 2000. Report states that 10 USTs were removed from Exxon sta. in 1995, contam. soil found, spill reported no. 9413181. Exxon removed some contaminated soil and spill was closed in 9/96.

In July 1999 during groundbreaking for new JCC building, old fuel oil UST and O/W separator tanks found, with large amounts of contaminated soil. This, along with a series of odor complaints by neighbors during construction activities, led to spate of new spill reports: 9904938, 9904995, 9904998, and 9905193, under address 332 Amsterdam Ave. All were subsequently closed, mostly by Sigona in '03, one by Dave Harrington (Central Office) in '04.

AKRF rpt. (in eDocs) goes on to summarize removal of old tanks, removal of soil/rock to depth of 35 feet, extending a little beyond site boundaries. Rpt. states they are in process of removing add'l contaminated soil, down to bedrock and curb line. Said end–pt. samples will be taken, and proposed installing geonet vapor barrier on exterior of foundation walls down to competent rock, with vapor collection pipes within geonet layer connected to header pipes near top of foundation walls. Pipes to be connected to blower which will discharge to carbon treatment system. Also, underslab drainage sump will be enclosed and connected via vacuum pipe to vapor treatment system. Cover letter to Sigona states that vapor extraction piping system was installed around foundation exterior, is about to be covered in concrete, and that K. O'Dowd had verbally approved system but they never set up formal stip. agreement, and JCC would like to have written DEC approval for system. I spoke with PW on 1/12/07, asked if there's any follow–up documentation from AKRF for proposed add't'l soil removal/end–pt. sampling, and to confirm if vapor system has active blower, in which case discharge must be sampled and regulated. He said he will contact AKRF and get back to me. – J. Kolleeny

01/19/07: On 1/16/07, received fax from Paul Wertheimer of JCC with basement sump water analytical results (in eDocs) for sample taken in July 2004 to see if discharge to sewer is in compliance with NYCDEP requirements; sample results show target compound levels well below DEP limits. Also, received email from PW saying he checked venting system, which does have blowers, but he confirmed that blowers were off and looked like they'd been off for quite a long time. Based on AKRF report's description of excavation work done and fact that water in basement sump did not appear to have any petroleum contamination when sampled in July 2004, it appears that contamination at this site caused by former gasoline station has been adequately addressed, and it seems likely that discovery of gasoline/oil mix in soil by Con Ed workers that lead to this spill report was a small pocket of residual contamination, which was then dug out and drummed. No further action is required, and this spill is closed. See also related spills 9904938, 9904995, 9904998, and 9905193, all of which have been closed. – J. Kolleeny

Map Identification Number 122 **HERTZ RENT A CAR**
 210 W. 77TH ST.

MANHATTAN, NY

Spill Number: 0706612

Close Date: 09/24/2009
 TT-Id: 520A-0089-860

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1176 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Other
 Caller Name:
 DEC Investigator: hrpatel

Spiller: C/O CHAPMAN CONSULTING – RICLAND LLC.
 Notifier Name:
 Caller Agency:
 Contact for more spill info: JEFF ANDERSON

Spiller Phone: (212) 888-7400
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (201) 876-9400

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 09/13/2007 | | OTHER | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE | PETROLEUM | 0 | GALLONS | 0 | GALLONS | GROUNDWATER |

Caller Remarks:

26ppm of gasoline detected in soil. Groundwater showed 101ppb of benzene. Caller believes spill was caused by historical spillage on property.

DEC Investigator Remarks:

09/14/07–Hiralkumar Patel. spoke with Mr. Anderson. asked him to send analytical data with site plan including sampling locations, for review. he will send full report lateron.

Jeff Anderson Atlantic Environmental Ph. (201) 876-9400 Ext. 303

(201) 918-1218 (C) email: janderson@solutionsenvironmental.com

spoke with Joel Weinstein (212-888-7400) at Chapman consulting. as per Mr. Weinstein, they used to manage this property, but no more. he asked to contact Hertz.

PBS #: 2-453277. as per PBS record, site has two in-service 1000 gal gasoline USTs and three closed out 550 gal gasoline USTs.

left message for Tracy Masella (201-307-2423) at Hartz corp.

spoke with Ms. Masella. she asked to contact Tim Egan. as per Mr. Egan, Hertz has leased this site.

Tim Egan

****tank owner's representative**** The Hertz Corporation Environmental Program Manager 225 Brae Blvd Park Ridge, NJ 07656 Ph. (201) 307-2526 email: tegan@hertz.com

asked Mr. Egan to provide property owner's information. Mr. Egan also mentioned that there is an excavation going on at next door property (don't know which side).

alternate add: 206-210 W 77th Street

spill reported in neighbourhood:

1. 219 W 77th Street: National car rental. Spill #: 0312284. this site is in front of Hertz car rental site. found groundwater contaminated during tank removal. DEC Ketani has asked for another set of groundwater sampling. spill still open.

2. 348-354 Amsterdam Avenue. alternate add: 202-204 W 77th Street. spill #: 9808769. spill was reported as found contaminated soil. case closed. no notes. propertyshark.com shows garage at site. <-----

received call from Mr. Egan. as per their records, property owner is:

Richard Chapman

****property owner**** Ricland LLC. (owner of property) Chapman Consulting LLC. 770 Lexington Avenue 18th Floor New York, NY 10021 Ph. (212) 319-0939 Ext. 306 Fax (212) 319-1841 email: richard159@usa.net

left message for Mr. Chapman.

received call from Mr. Chapman. he is property owner. they did investigation as planning to convert existing buiding into residential complex with offices on ground floor. they are also planning to add floors to it. ask him to do further delineation of soil and groundwater contamination.

received phase II summary report from Mr. Anderson. abstract:

- installed six borings (SB-1 to SB-6) adjacent to the two 1000 gal gasoline USTs, located in the basement - two sump wells (BW-01, BW-02) are located within the UST tank field in basement. <----- - installed three additional borings (SB-7 to SB-9) in the vicinity of the heating oil UST located under the sidewalk in front of the building, along W 77th st - borings SB-1 to SB-6 were advanced to depth of between 2.5 ft bg and 9.5 ft bg - borings SB-7 to SB-9 were advanced to depth of between 4 ft bg and 7 ft bg (unknown depth of heating oil UST invert) - one soil sample was collected from each borings (total of 9 soil samples) and one water sample was collected from each sump well (total 2 samples) - PID readings during boring, were between non-detect and 15 ppm except SB-4 (300 ppm) <----- - sample SB-4 was taken at 2.5 ft bg <----- - found high Xylene contamination in sample SB-04 (26,000 ppb at 2.5 ft bg) <----- - found contaminated water from sump well BW-02 (Benzene: 101 ppb, Toulene: 196 ppb) <-----

report missing following: – site map is missing locations of dispenser islands, remote fill ports, previously closed 550 gal gasoline USTs, fill port for fuel oil UST, fuel oil UST invert depth – detailed soil boring logs – depth of sump wells – analytical data package from laboratory

requires following: – registration of 1000 gal heating fuel oil UST – sampling, at least 5 ft, below depth of abandoned UST invert under sidewalk as samples taken to max depth of 7 ft (tank invert could be at 6 ft and was abandoned)

spoke with Mr. Anderson. he mentioned that submitted report was just a summary, not full report. he will send detailed report soon (by Sep. 31). asked him to include boring logs, well depth, how wells were installed etc. he also mentioned that Phase I was done at site. asked Mr. Anderson to submit Phase I report.

10/11/07–Hiralkumar Patel. spoke with Mr. Anderson. he is no longer working on this project. he will provide contact number for person working on–site.

left message for Mr. Egan to submit Phase I and detailed Phase II report. spoke with Mr. Chapman. he will send copy of previous reports.

10/15/07–Hiralkumar Patel. received message from Mr. Egan. left message for Mr. Egan to submit previous reports and RAP based on investigation work done till date.

10/18/07–Hiralkumar Patel. received Phase I and previously submitted Phase II summary report (not full Phase II). abstract of Phase I:

– local topography generally slopes to south – property has been graded with an average elevation of approx. 77 ft above mean sea level – shallow groundwater in the site area is expected to flow in general west, northwest direction – subject property is improved with a six story commercial building – fill cap was observed in sidewalk on the north side of building – it appears that heating oil tank is located beneath the sidewalk – historically, a carpet cleaning was located on the site and dwelling/stables – since 1929, the site has functioned as a car garage – identified two active 1000 gal gasoline USTs and three former 550 gal gasoline USTs <----- – based on historical sanborn maps, observed that the former location of three 550 gal USTs appears to be the same location as the currently active 1000 gal USTs

received email from Mr. Egan. he mentioned that Atlantic environmental did work for building owner and he only has summary report. he also sent letter with current tank test on two 1000 gal gasoline USTs. he also mentioned that during construction on adjacent property, which surrounds subject site on two sides, they noticed petroleum odor and found crushed tanks at site. Hertz tested entire gasoline tank systems and found tight.

spoke with Jeff at Atlantic environmental. as per Jeff they were hired to do certain work and they don't have full report.

spoke with Blaise Turi at Chapman consulting. asked him to provide complete Phase II report (instead of summary) with all missing information.

received call from Jeff from Atlantic. he will send missing information in Phase II.

10/18/07–Hiralkumar Patel. visited site. met Abdul at site. he showed locations for gasoline tanks in basement. no oil stains on

top of tank location. no odors inside basement.

visited next door construction site, which is located at 348 Amsterdam Avenue. met Dan Kerendi (212-362-9605), construction supervisor at site. as per Dan, they removed about 12 tanks from site. no contamination was found around those tank. found contamination in only one corner of site but it was too deep than tank located. currently they are removing soil from area which is close to Hertz's site and along foundation wall where gasoline tanks are on Hertz's property. asked Dan to monitor site for any contaminated soil. they dug remaining site to about 30 ft bg and did not encountered any groundwater. asked Dan to register removed tanks.

10/22/07-Hiralkumar Patel. received letter from Mr. Egan. abstract:

- site has two double walled fiberglass gasoline USTs in basement. - dispenser island is located on first floor. - USTs and lines are continuously monitored by a Veeder Root in-tank gauging system. - Hertz tested their tank system including pipings and all passes. - no current leak from existing gasoline system. - groundwater samples from sump wells, during Phase II, were collected by simply lowering bailer down and no purging was completed prior to sample collection and no sheen or product was observed

no word about fuel oil system under sidewalk.

spoke with Mr. Egan. asked him to find depth of sump well and see if there is a true groundwater in sump well (as no groundwater encountered in next door construction site which has excavated below subject site basement). also asked him to see if heating oil tank is active or not and to test heating oil system. Mr. Egan mentioned that they installed gasoline tanks at site, but not sure about heating oil tank. he will find who installed heating oil tank (owner or Hertz). they will register heating oil tank.

10/26/07-Hiralkumar Patel. received call from Jeff. he will send detailed report soon. he asked for responsibility of spill cleanup based on letter from Hertz submitted earlier. explained to Jeff that the department consider both owner and tenant responsible for cleanup.

received call from DEC Urda. he received call from owner's attorney Mr. Periconi asking for STIP.

James J. Periconi, Esq. Periconi, LLC PH. (212) 213-5500 Fax (212) 213-5030 e-mail: jpericoni@periconi.com

11/01/07-Hiralkumar Patel. left message for Mr. Egan regarding information about sump well and heating oil UST.

spoke with Mr. Egan. as per him, they never used heating oil tank and don't know who installed it. they are using gas heating system since they are on-site. he measured depth of sump well and found bottom at about 9 ft and less than an inch of water. Mr. Egan believes that water in sump well could not be true groundwater and could be surface water from basement floor.

sent STIP to Mr. Egan and Mr. Chapman with DEC Urda's review and approval. emailed copy of STIP to Mr. Egan, Mr. Chapman and Mr. Periconi.

11/23/07-Hiralkumar Patel. DEC Urda received STIP and DEC Region 2 Director signed the STIP. DEC Urda send email to Mr. Periconi with copy of fully executed STIP.

12/03/07–Hiralkumar Patel. received letter from Neale Bedrock, attorney representing Hertz. as property owner signed a STIP, Hertz is not taking responsibility of any contamination.

01/11/08–Hiralkumar Patel. received work plan from Mr. Anderson from Atlantic environmental. they will install 6–8 soil borings around tanks and piping. they proposing to install borings to depth equivalent to tank bottom and piping. he only proposes investigation around gasline tank and piping, but no indication about investigation around heating oil tank undre sidewalk. proposing to convert one boring, closest to tank field, into temporary well.

from previous investigation report, found that soil samples were taken from only three sides of heating oil tank. there was no sample from south side of tank. previous boring SB–4, where high xylene found, was located on south side of heating oil tank.

Mr. Anderson submitted boring logs for previous borings. from boring logs, groundwater was encountered at depth of 9 ft bg. but as per construction site next door, they did not found groundwater to depth of 30 ft.

received call from Mr. Anderson. as per Mr. Anderson, previous soil samples around heating oil tank were taken at 7 ft depth and after that they got refusal due to rock. aksed Mr. Anderson to take soil samples at least one foot below tank and piping bottom, if no refusal encounteres. also asked to take soil sample on south of heating oil tank, if possible. and to take groundwater sample from boring closest to previous boring SB–4, if they hit groundwater. Mr. Anderson mentioned that today during borings, they went deeper than previous borings and haven't found any groundwater. so previous groundwater in boring could be perched groundwater. asked Mr. Anderson to check for any perched groundwater and if not, take deepest dry and most contaminated soil samples at previous boring SB–4. asked Mr. Anderson to submit revised work plan.

01/31/08–Hiralkumar Patel. received call from Mr. Anderson. they got analytical results. asked Mr. Anderson to send sample analyticals and site map with sampling locations, for review.

02/08/08–Hiralkumar Patel. sent email to Mr. Anderson requiring report submission. received email from Mr. Anderson. will submit report by end of Feb. 2008.

03/18/08–Hiralkumar Patel. received investigation report from Mr. Anderson. abstract:

– topography of the surrounding area is generally flat and depth to groundwater at the site is estimated to 35 ft bg (based on information from adjacent construction site, where groundwater was found at 35 ft bg) – soil borings were advanced around the USTs and product supply lines – soil borings SB–10 through SB–18 were advanced to depths of between 1 ft bg and 8 ft bg due to mechanical refusal – PID readings were between non–detect and 15 ppm for all borings – no viable soil samples were recovered from the borings B–15 or 16 due to sand (no recovery) and in SB–17 or 18 due to sampling equipment refusal onto soild bedrock – soil samples collected from boring SB–10 to SB–14 – due to shallow refusal, unable to advance borings below the groundwater table

conclusions: – determined that the contamination is limited to immediate area of the USTs – as bedrock was encountered at less than 2 ft below floor level and soils encountered were found to be limited to sand and gravel in the UST excavation, the amount of soil contamination is minimal – determined that groundwater is more than 30 ft bg, it is clear that the tank wells contain trapped water and not waters connected to groundwater

recommendations: – current tenant lease is due to expire in Feb. 2009; as part of lease, the tenant is required to remove the tanks. – remedial activities relating to sand/gravel and trapped rain water will be conducted at that time

no contamination found in any samples taken recently. samples SB-10 and SB-11 were taken close to previous boring SB-04. both samples taken deeper than SB-04. during previous Phase II investigation, found black sand and fill material in SB-04 and found 300 ppm PID reading in that boring. so contamination in SB-04 was found right above bedrock.

spoke with Blaise Turi (Ext. 301) at Ricland LLC. explained him that contamination has found in only one sample SB-04 at 2.5 ft depth and that is on top of bedrock. to confirm containment of such contamination, the department requires true groundwater sample at the site. or else they can excavate soil and remove that contamination. if takes groundwater sample and finds clean then only the department can wait for a year before tenant's lease expires and remove tanks and contaminated soil in Feb. 2009. also mentioned to Mr. Turi that depth of tank bottom under sidewalk is still unknown and that tank might be causing contamination at the site. asked Mr. Turi to talk to Mr. Anderson and to call back with decision about either bedrock well or excavation at the site.

left message for Mr. Anderson at Atlantic environmental.

received call from Mr. Anderson. he mentioned that an employee, working at the site, confirmed that there was an aboveground heating oil tank in basement and was removed long time back. there was no tank under a sidewalk. Mr. Anderson mentioned that excavation around SB-04 is not possible without removing existing tanks. with these provided information, asked Mr. Anderson to install well for groundwater sample. if groundwater finds clean then only the department can wait for another year or else remediation must be started.

spoke with Mr. Turi. asked him to schedule well installation and to provide work schedule.

03/25/08–Hiralkumar Patel. spoke with Mr. Turi. he will call back with work schedule for well installation.

03/28/08–Hiralkumar Patel. received call from Mr. Anderson. he asked for letter for well requirement. sent email to Mr. Chapman and Mr. Anderson mentioning that as per CAP for STIP, the department requires complete (horizontal and vertical) delineation of contamination. and under that requirement, the department requires monitoring well. no separate letter will be issued.

04/24/08–Hiralkumar Patel. received call from Mr. Anderson. he mentioned that Hertz require confirmation from the Department regarding installation of well.

Neil Bedrock law dept. at Hertz PH. (201) 307–2902 email: nbedrock@hertz.com

left message for Mr. Egan and Mr. Bedrock requiring installation of monitoring well.

received message from Mr. Periconi, attorney representing owner. he mentioned that Hertz refusing access to site for well installation. received Mr. Bedrock's email address from Mr. Periconi.

04/25/08–Hiralkumar Patel. left message from Mr. Egan regarding well installation. sent email to Mr. Egan, Mr. Bedrock, Mr. Chapman and Mr. Periconi regarding requirement of well installation.

05/16/08–Hiralkumar Patel. spoke with Mr. Anderson. they installed well yesterday and will sample next week. they installed well inside basement to depth of 35 ft below basement floor.

06/19/08–Hiralkumar Patel. received call from Mr. Anderson. they received sample analyticals and found Benzene contamination. asked Mr. Anderson to submit report. asked him to include all previous and current borings/well locations on same map.

06/30/08–Hiralkumar Patel. received groundwater investigation report. abstract:

– topographic elevation at the site is approx. 77 ft above mean sea level – one groundwater monitoring well was advanced in the area of former soil boring SB–04 – well was installed to a depth of approx. 30 ft below basement floor; well screen was installed from 10 ft below surface to 30 ft – subsurface morphology consisted of cobbles and fill material with sand and gravel to approx. 6 ft, followed by weathered bedrock to approx. 24 ft and competent bedrock was encountered at 24 ft – petroleum odors were encountered for the initial 10–15 ft below the floor surface – groundwater was encountered during well installation at approx. 19 ft below basement ground surface; static well after well development was at approx. 24 ft below the basement floor – found VOC contamination in groundwater

-----MW-1 Benzene-----227 Toluene-----33 Ethylbenzene-----87
Xylene-----147 Naphthalene-----209

summary:

– no PID found in soil from 0 to 6 ft below basement floor – highest PID values found at 7 ft depth, below basement floor, in weathered bedrock

spoke with Jeff at Atlantic regarding machine used to install deep bedrock well inside basement. he mentioned that rock hammer was used for well installation. as per Jeff, current building will be demolished and then will be redeveloped.

left message for Mr. Chapman to know proposed redevelopment plans.

01/14/09–Hiralkumar Patel. received email from Mr. Turi and Mr. Anderson (Atlantic environmental). Hertz hired Envirotrac to remove gasoline tanks and they are removing now.

02/20/09–Hiralkumar Patel. received UST removal report. abstract:

– removed two 1000 gal gasoline USTs, three dispensers, one remote fill and associated lines – elevation of site is approx. 78 ft above mean sea level – USTs and pipings were inspected and found in good condition; no holes or cracks were observed – UST excavation consisted of dry, light brown, engineered pea gravel to a depth of approx. 7 ft bg – underground piping and remote fill excavations consisted of apparent competent bedrock – no groundwater was encountered in any excavations – in order to determine the depth of bedrock beneath the removed tanks, the UST excavation was continued vertically beyond the initial pea gravel layer to an approx. depth of 8 ft bg, where competent bedrock was encountered – during additional excavation activities under tanks, moist/grey pea gravel, exhibiting a slight odor and a PID reading of 193 ppm was encountered from approx. 7.5 to 8 ft bg, approx. 6 inches beneath the initial dry/light brown pea gravel layer located immediately beneath the removed tanks <----- – sample of pea gravel exhibiting a PID response was collected for analysis – no other soil samples collected as pipings were on bedrock – groundwater sample was collected from previously installed well MW–1 – groundwater was detected at 12.57 ft below the top of well casing – no contamination found in soil sample – VOC contamination found in groundwater sample

-----MW-1 (sampling in Jan. 2009) Benzene-----130 Ethylbenzene-----120

02/24/09–Hiralkumar Patel. spoke with Mr. Turi. mentioned to him that based on submitted tank closure report, no further action required in referenced to previous gasoline tanks. but the department still requires cleanup of contamination soil found in previous boring SB–04. Mr. Turi mentioned that they are selling property. told him that spill cleanup is required under the signed STIP agreement. mentioned to him that new owner must be informed about signed STIP. Mr. Turi asked to talk to Mr. Anderson.

spoke with Mr. Anderson. he mentioned that previous boring SB–04 was located in area of tank excavation. he mentioned that tanks were installed in bedrock and during tank removal, no soil was found, but only pea gravels. asked him to submit scaled site plan with excavation boundaries and previous boring and well locations.

03/03/09–Hiralkumar Patel. received message from Mr. Anderson. will excavated soil, around previous soil boring SB–04, on 03/05/09.

03/05/09–Hiralkumar Patel. received message from Mr. Anderson. they started removing contaminated soil in area of previous boring SB–04. during excavation they found old abandoned gasoline tank. they continue excavation and will remove tank and any contaminated soils.

03/19/09–Hiralkumar Patel. received report from Mr. Anderson. abstract:

– excavated area around previous boring SB–04 and found previously unknown 550 gal tank – UST was encased in concrete with some areas free of concrete, where steel was visible – thick layer of concrete was the cause for refusal of SB–4 – top of UST was located below a concrete pad approx. 4 ft bg – UST was approx. 3.5 ft in diameter and 7 ft long – approx. 80 gal of gasoline/water and sludge were removed – slight evidence of discharge was observed in material found between the bottom of tank and concrete base – concrete base was removed and found bedrock directly below the concrete base, no soil was present <-----
– if there was a release at the tank, it would pass through bedrock, then to the water table <----- – excavation of UST removal was approx. 20 ft long, 15 ft wide and 7 ft deep – excavation was deepened in one area to a depth of 9 ft and confirmed no groundwater present within 2 ft of base of excavation

03/23/09–Hiralkumar Patel. received call from Mr. Anderson inquiring status of the spill case. mentioned to him that based on all available reports, the department requires three more quarterly groundwater sampling from an existing well.

sent email to Mr. Chapman requiring three round of groundwater sampling on a quarterly basis. email copied to Mr. Anderson.

05/05/09–Hiralkumar Patel. DEC Urda received request from property owner's attorney regarding letter for requirement of three rounds of quarterly groundwater sampling.

05/14/09–Hiralkumar Patel. sent letter to Mr. Chapman requiring three rounds of quarterly groundwater sampling for analysis of dissolved oxygen, pH, redox, alkalinity, VOCs and SVOCs. letter emailed to Mr. Chapman, Mr. Periconi, Mr. Leland (richard.leland@friedfrank.com) and DEC Urda.

after sending letter, found DEC Urda's email with the same letter that he sent out yesterday as I was out of office. spoke with Urda. he sent out email to involved parties to disregard letter from me.

05/15/09–Hiralkumar Patel. received groundwater monitoring report from Mr. Anderson. groundwater sample from an existing well was collected on 04/16/09 and found some contamination in it. will continue quarterly groundwater monitoring.

groundwater analyticals:

-----MW-1 Benzene-----187 Ethylbenzene-----336 Xylene-----112

08/19/09–Hiralkumar Patel. 4:08 PM:– received GW monitoring report from Mr. Anderson. groundwater sample from existing monitoring well was collected on 07/16/09.

groundwater analyticals:

-----MW-1 Benzene-----132 Ethylbenzene-----219
Xylene-----15 1,2,4-Trimethylbenzene-----349

four rounds of groundwater sampling conducted since May 2008: 05/29/08, 01/19/09, 04/16/09 and 07/16/09. concentration for benzene, toluene, xylene and naphthalene has been reduced but concentration for ethylbenzene and 1,2,4-trimethylbenzene has been increased.

09/17/09–Hiralkumar Patel. 3:50 PM:– spoke with Jeff regarding current status of the site. Jeff mentioned that site has been sold and new owner will redevelop the site.

Jewish Board of Family & Children's Services, Inc.

****new owner**** 120 W 57th Street New York, NY 10019–3320 Attn.: Ellen Josem PH. (212) 582–9100 email: Ejosem@jbfcs.org

09/23/09–Hiralkumar Patel. 3:22 PM:– spoke with Ms. Josem. due to financial conditions, they choose to keep garage business (Hertz rental) at the site for few years and will redevelop this site once have enough source. she asked to contact Susan Bear (212–632–4706, email: SBear@jbfcs.org) regarding future plans and any tank that will be installed at the site for Hertz's use.

4:10 PM:– received message from Jeff. he mentioned that Hertz is not planning to install any more tanks at the site.

09/24/09–Hiralkumar Patel. case closed based on following:

– all tanks removed from site – no contamination found during tanks removal – groundwater at site is 24 ft below basement floor (approx. more than 35 ft bg) – contamination in groundwater decreased

NFA sent to Ms. Bear. letter emailed to Ms. Bear, Mr. Chapman, Mt. Egan and Jeff.

Map Identification Number 123

CAR RENTAL

Spill Number: 1505465

Close Date: 12/21/2015



221-223 W77TH ST

MANHATTAN, NY

TT-Id: 520A-0313-292

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1228 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: 221-223 W 77TH ST
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Spiller: MATT BOECKEL - CAR RENTAL

Spiller Phone:

Notifier Type: Other

Notifier Name:

Notifier Phone:

Caller Name:

Caller Agency:

Caller Phone:

DEC Investigator: SXMAHAT

Contact for more spill info: MATT BOECKEL

Contact Person Phone: (631) 234-4280

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/20/2015 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | SOIL |

Caller Remarks:

Oil from unknown source discovered in soil. Further investigation and cleanup is pending.

DEC Investigator Remarks:

8/20/2015 - Feng - Duty Desk. Talked to Matt Boeckel of Associated Environmental (631-234-4280). The contractors were doing excavation, i.e. chipping down the bedrock using jack hammer, and found oil coming into the excavation. No tank is reportedly onsite. He will inspect the site tomorrow and will provide more information.

Assigned the spill to Santosh Mahat for a site inspection 8/21/2015.

8/21/15: Mahat t/c: DEC Mahat contacted Matt and he mentioned that ground water has been impacted while the property was excavated. A complete remedial work plan for the project and will submit to the Department for approval.

DEC Mahat received an email update from Matt:

Santosh the following email provides a summary of the information I have to date on the above noted project:

The site was formerly improved with a six story mixed use building. The first floor and sub-grade level were occupied by National Rent a Car. National Rent a Car is listed under PBS registration number 2-271292. The site is listed as having one 2,000-gallon gasoline UST closed in-place, three 550-gallon fuel oil USTs closed ~ removed as well as a 550-gallon and 500-gallon aboveground tanks in subterranean vault which were closed in-place.

The site had two (2) previous spills on file with the NYSDEC. Spill number 0310460 was for a 1-gal gasoline spill and was subsequently closed. Spill 0312284 was listed for gas unknown amount and was subsequently closed.

The former building has been demolished and the site is currently undergoing renovation. Part of the renovation entailed digging a deeper foundation. On August 20, 2015 while breaking up and removing bedrock from the northeast corner of the site groundwater was observed to be coming into the excavation. The water exhibited a strong petroleum (fuel oil/diesel) odor and there was a noticeable film of product present. The NYSDEC was notified and spill number 1505465 was assigned to the site.

Thank You,

Matt Boeckel

Associated Environmental Services, Ltd 25 Central Ave Hauppauge, NY 11788 NYC/NYS/NJ/Port Authority of NY/NJ MBE Certified

631.234.4280 631.234.4297 fax

Point of Contact: 223 West 77th Owner LLC

***** Owner 1700 Broadway 16FL NYC 10019 achaney@naftaligroup.com

8/24/15: Mahat e/c: DEC Mahat sent an CSL letter to above address and it has been uploaded on D2 for reference. DEC Mahat is waiting for a report as mentioned on the letter.

12/21/15: Mahat E/C: DEC Mahat received a closure report on the spill case. It has been uploaded on D2 for reference.

Based on the spill closure report, a 2000 gallon tank was previously abandoned in place was found during the demolition. Tank is now removed and all end point sample are below CP 51 Guidance value. Based on the report, the Department does not warrant any further investigation on the spill case. Source is removed leaving a clean end points. Spill case is closed on NYSDEC Spill Database.

Map Identification Number 124



NATIONAL CAR RENTAL

219 WEST 77TH STREET

MANHATTAN, NY

Spill Number: 0312284

Close Date: 06/16/2008

TT-Id: 520A-0101-349

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 1228 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

| | | |
|----------------------------|--|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: ARNOLD PENNER – SYLGAR | Spiller Phone: (212) 980-6000 |
| Notifier Type: Other | Notifier Name: DIANA NEWSOME | Notifier Phone: (845) 348-6355 |
| Caller Name: DIANA NEWSOME | Caller Agency: RND SERVICES | Caller Phone: (845) 348-6355 |
| DEC Investigator: rvketani | Contact for more spill info: DIANA NEWSOME | Contact Person Phone: (845) 348-6355 |

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/04/2004 | | OTHER | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|--------|--------------------|--------|----------------------|
| | | Units | | Units | | |
| GASOLINE | PETROLEUM | 0 | POUNDS | 0 | POUNDS | SOIL |

Caller Remarks:

leaking UST caused the spill. Unknown amount spilled. Not sure if clean up has started.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was ROMMEL 2/5/2004 Sangesland spoke to Sharima Ryan of RND Services (845-348-6355). She says RND was called in to properly abandon several 550 gal USTs at the site which had been incorrectly abandoned some time in the past.

Phase I on the site says up to 6 – 550's existed. So far RND has found 3 – 550's which are filled with a combination of sand, water and gasoline. Several borings made through the tanks reveal the area under the tanks have gasoline contamination problems.

Within the next 1-2 days, RND will be submitting a plan to the owner discussing either removing the tanks and contamination or treating it in place. Bedrock in this area (West 77th St) is very shallow.

05/21/04

Email from Sharima Ryan:

We removed 3 gasoline UST's earlier this week and excavated a limited amount of contaminated soil (not more than 20 yards) and at this point are very limited in what we can do as a way of excavating additional material. In several parts of the excavation we are encountering ledge rock and using a larger machine to excavate is not feasible (unable to get it into the basement). We have placed ORC in the excavation (24' X 24') which is currently open and plan to install three wells within the excavation. The wells will be installed off to the sides of a concrete pad that the tanks were on. We will then backfill. There is some water in the excavation – this may be groundwater. We have soil samples of the sidewalls in some areas. I wanted you to comment on our

plans because going back and doing any additional work at this site is extremely difficult and if there was anything additional you would like us to do, I would rather try and accomplish it now.

Sincerely,

Sharima Ryan

RND Services Inc.

10 Waldron Avenue

Nyack, NY 10960

845-348-6355

Called Ms. Ryan, approved proposed work. Required that she document the condition of the bedrock surface and submit report to my attention. Rommel.

>>> Jennifer Rommel 08/20/04 04:0PM >>>

Sharima,

Reviewed 8/5/04 Tank Closure Report and agree with recommendation for gw sampling. Please provide report at the end of the three months.

7/13/05 TAS (TXSMITH) Called Sharima Ryan of RND, that performed tank closure, she said the gw sampling was not completed because the owner/operator did not have RND perform the sampling. Will contact Mr. Penner to see if there is any information.

7/14/05 TAS Talked to Mr. Penner and he said that the site was cleaned up (as mentioned above) but was unsure of the follow up gw sampling. He said he would check and the sampling would be completed if it was not done. Groundwater sampling should be performed and the next steps can be determined by these results. This site should be transferred back to the region for followup.

3/30/07 – Austin – Trasferred to Ketani for further review – end

5/11/07 – Raphael Ketani. The site is listed in the NYC Property Tax, Property Shark, and the Spills database as National Car Rental Systems, Inc., 219 W. 77 Street, NY, 10024. Block and lot are 01169/0023. The site was a 5 story apartment building with stores at the street level. The owner of the property is listed as Sygler, LLC, 545 Madison Avenue, NY, 10022 in the PBS registration #2-271292. The site has 5 550 gal gas tanks that were closed at the site. Two were closed in place and 3 were removed. One 2000 gal. gas tank remains active. There was gas contamination in the soil.

There was no paper file record, nor are there any E-docs. I tried to contact Sharima Ryan (845)348-6355, but could only leave a message.

5/14/07 – Raphael Ketani. James Wilson of RND Services (845) 348-6355 left a message stating that Ms. Ryan was on maternity leave

(back June 1) and that she was only occasionally checking her e-mails. He stated that I should contact him, instead.

5/16/07 – Raphael Ketani. I made contact with Mr. Wilson and asked him whether he was the case manager. He said Sharima was. I asked him to send any documents, pictures, etc. that RND had on the site as DEC had nothing. He said he will talk to Sharima and see what they can come up with.

8/1/07 – Raphael Ketani. Today I received the May 2004 Underground Storage Tank Closure Report and the 8/11/05 Technical Report for the groundwater. The groundwater results for the 8/4/05 samples still show concentrations that require remediation. The Closure Report was determined to be acceptable.

I contacted Ms. Ryan and told her that another round of groundwater samples was needed. She asked that I send her an e-mail to that effect. I sent the e-mail.

10/19/07 – Raphael Ketani. I contacted Sharima Ryan. She said that she just finished her review of the groundwater results. She said that they still show some hits, but they are better than in 2005. She said I should receive the analyticals next week.

11/9/07 – Raphael Ketani. I received the groundwater results.

11/14/07 – Raphael Ketani. I reviewed the 9/5/07 groundwater results. MW-1 had 3 VOC hits which were all very slightly above TAGM. MW-3 had 6 VOC hits which ranged from 12 ppb to 60 ppb. MW-2 had 9 VOC hits which ranged from 8 ppb to 380 ppb. At MW-2, 5 VOC hits were 120 ppb to 380 ppb. Depth to water is about 2.5' below grade.

11/16/07 – Raphael Ketani. A letter with map was sent to Ms. Ryan requesting the installation of 8 additional groundwater wells. The work requested includes soil and water sampling, groundwater flow direction determination, indication as to where the in service and other tanks are located, and construction of maps showing the streets adjacent to the property, the north direction and a scale.

12/5/07 – Raphael Ketani. I spoke to Ms. Ryan (845) 348-6355. She said that she thought the 11/16/07 DEC letter was asking for a lot of work. She also didn't have the record in front of her and asked that I give her time to review the file and call back. I said that would be alright.

12/12/07 – Raphael Ketani. I left another message for Ms. Ryan to call me back.

2/25/08 – Raphael Ketani. I tried to contact Ms. Ryan, but could only leave a message.

3/24/08 – Raphael Ketani. I spoke to Ms. Ryan. I asked her about the November 15, 2007 DEC letter that I had sent. She said that her client balked at putting in 8 more wells as it is a large expense. She said that bedrock is very shallow and that they had installed 9 borings back in 2004. She said she would like to just do another round of sampling. I told her that since 9 borings had been done in the past and that since DEC had approved the 2004 Underground Storage Tank Closure Report and the 2005 groundwater Technical Report, DEC will only ask for another round of groundwater sampling and a survey of the groundwater flow direction. She said that RND Services is going to do sampling at other sites and that National Car Rental can be worked into the schedule. I told her I will send a letter to her memorializing our conversation today.

The letter was sent.

3/31/08 – Raphael Ketani. Ms. Ryan e-mailed me and wrote that they will sample the wells April 4.

4/24/08 – Raphael Ketani. Ms. Ryan e-mailed me that the wells were sampled as scheduled on 4/4/08 and that a report will be sent soon.

6/16/08 – Raphael Ketani. I received the 6/9/08 Groundwater Sampling Report on Friday, 6/13/08, when I was out for the day. I began my review today. Well MW-1 had 6 hits with 15 ppb being the highest value. Well MW-2 had 8 hits with values from 14 to 110 ppb. The highest hits were 100 ppb and 110 ppb. Over the past 4 years, the contaminant concentration reduction by natural attenuation have been significant. Well MW-3 had 2 hits with 12 ppb being the higher of the two.

Based upon the groundwater analytical results in the 6/9/08 Groundwater Sampling Report, I am closing the spill case.

| | | | | | | | |
|--|---------------------|--|-------------------------|--------------------------------------|---------------------|-------------------------------|--|
| Map Identification Number 125 | | APARTMENT 1-1 | | Spill Number: 0607065 | | Close Date: 09/21/2006 | |
|  | | 101 WEST 85 STREET | | NEW YORK CITY, NY | | TT-Id: 520A-0098-749 | |
| MAP LOCATION INFORMATION | | | | ADDRESS CHANGE INFORMATION | | | |
| Site location mapped by: PARCEL MAPPING (1) | | | | Revised street: 101 W 85TH ST | | | |
| Approximate distance from property: 1231 feet to the NNE | | | | Revised zip code: NO CHANGE | | | |
| Source of Spill: PRIVATE DWELLING | | Spiller: SUPER OF APT. – APARTMENT 2-1 | | Spiller Phone: (212) 724-5851 | | | |
| Notifier Type: Citizen | | Notifier Name: | | Notifier Phone: | | | |
| Caller Name: | | Caller Agency: | | Caller Phone: | | | |
| DEC Investigator: SMSANGES | | Contact for more spill info: MARTA WHITE | | Contact Person Phone: (212) 877-6605 | | | |
| ----- | | | | | | | |
| Category: | | Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills. | | | | | |
| Class: | | Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency | | | | | |
| ----- | | | | | | | |
| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
| 09/19/2006 | | OTHER | NO | | | | |
| ----- | | | | | | | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected | |
| UNKNOWN MATERIAL | OTHER | 0 | GALLONS | 0 | GALLONS | SOIL | |
| ----- | | | | | | | |
| Caller Remarks: | | | | | | | |
| POLY AND LACKER FUMES; APT. IS BEING REDONE AND COMPLAINTANT CAN NOT STAND THE SMELL/ FUMES FROM MATERIALS BEING USED; COMPLAINS THAT IT IS MAKING HER SICK; | | | | | | | |
| ----- | | | | | | | |

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 126 **101 WEST 85TH STREET**
 101 WEST 85TH STREET

MANHATTAN, NY

Spill Number: 0606644

Close Date: 09/11/2006
 TT-Id: 520A-0098-750

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1231 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Other
 Caller Name:
 DEC Investigator: HRPATEL

Spiller:
 Notifier Name:
 Caller Agency:
 Contact for more spill info: MALARIE GILMORE

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (212) 689-1520

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 09/09/2006 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

~5 gallons of

DEC Investigator Remarks:

09/11/06-Hiralkumar Patel. responded on 09/09/06. found oil stain on wall at vent pipe. no oil odor. super was out of country. visited site again today. met property manager Ari Paul (Ph. 212-873-4919). walked in tank room and boiler room. found no oil in any part these rooms. tank is aboveground. vent pipe is close to window of one of the apartment. asked property manager to clean oil stain from wall at vent pipe. found no oil stains anywhere else or odor inside building.

PBS#: 2-278300

Map Identification Number 127 **IN FRONT OF ON WALK**
 157 WEST 73RD ST

MANHATTAN, NY

Spill Number: 0913358

Close Date: 05/19/2010
 TT-Id: 520A-0248-556

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1232 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Other
 Caller Name:
 DEC Investigator: vszhune

Spiller: unk
 Notifier Name:
 Caller Agency:
 Contact for more spill info: ALEX

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (347) 865-1238

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 03/18/2010 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | |

Caller Remarks:

between columbus and amsterdam ave – leaking from fill pipes by walkway – possible overfill of tank – no cleanup

DEC Investigator Remarks:

03/19/10– Zhune spoke to Alex Castro from DEP 347-865-1238. He passed by this building located at 157 West 73rd St. and saw little amount of oil coming out from the fill port that is located on the sidewalk in front the building. He spoke to the super of the building Erbesto Brusco 212-87764689. the super said that he will clean the spill. Mr. Castro came back yesterday and found out that more oil is coming out from the fill port approximately 1/2 gallon.

Owner 241 East 58 Corpotation. 211 West 20 Street New York, NY 10011 212-675-0593 Margaret Building Manager.

TTF sent to: Barry Zonon

213 West 20th Street

New York, Ny 10011

05/19/2010– Zhune. Stuyvesant Approved Oil sent copies of the tank tightness test, invoice of the installation of new fill and vent pipes and photos. The spill was on concrete. The result of tightness test show the tank and system tight Old fill and vent pipe were removed and new fill and vent pipe were installed. Spill Closed.

Map Identification Number 128

SPILL NUMBER 0209565

Spill Number: 0209565

Close Date: 12/30/2002



126 W 73RD ST

MANHATTAN, NY

TT-Id: 520A-0097-807

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1258 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Spiller: UNKNOWN

Spiller Phone:

Notifier Type: Other

Notifier Name: DRIVER

Notifier Phone:

Caller Name: GABE RICCI

Caller Agency: PARK AVE ASSOCIATES

Caller Phone: (718) 401-2500

DEC Investigator: MXTIPPLE

Contact for more spill info: GABE RICCI

Contact Person Phone: (718) 401-2500

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/17/2002 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #2 FUEL OIL | PETROLEUM | 10.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

tank was overfilled but they are not sure if the guage was bad. clean up crew on site.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIPPLE CALLED GABE RICCI; PARK AVE. ASSOCIATES, WHO CONFIRMED THAT 5 TO 10 GALS. #2 HEATING OIL SPILLED. NO SOIL OR WATER WAS IMPACTED. DRIVER DID INITIAL CLEAN-UP. WITHIN HALF-HOUR, PARK AVE. ASSOCIATES CLEAN-UP CREW ARRIVED TO COMPLETE CLEAN-UP. CALLED HESS OIL CO. AT (201) 489-5100, WHO SUPPLIED THE PROPERTY Management company PHONE NO. (212) 382-3600. CALLED EDWIN; SUPER, WHO CONFIRMED THAT CLEAN-UP IS ALMOST COMPLETED.

E.R. 12/30/2002 Tipple spoke with management agent, confirmed 10 gal cleanup has been completed.

Map Identification Number 129 **AVIS RENT A CAR**
 216 WEST 76TH STREET

MANHATTAN, NY

Spill Number: 9512434

Close Date: 01/05/1996
 TT-Id: 520A-0098-732

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1275 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: 10023

Source of Spill: GASOLINE STATION OR PBS FACILITY
 Notifier Type: Other
 Caller Name: TONY RIZZO
 DEC Investigator: JMKRIMGO

Spiller: DEREK KUPPOLO – AVIS RENT A CAR
 Notifier Name: TONY RIZZO
 Caller Agency: ALVIN PETRO
 Contact for more spill info: DEREK KUPPOLO

Spiller Phone: (212) 593-8458
 Notifier Phone: (718) 461-5400
 Caller Phone: (718) 461-5400
 Contact Person Phone: (212) 593-8458

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/05/1996 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

no outside contamination – everything in sump hole

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was KRIMGOLD CLEANED UP BY SPILLER

Map Identification Number 130 **AVIS**
 216 WEST 76TH ST

MANHATTAN, NY

Spill Number: 9512234

Close Date: 12/05/2003
 TT-Id: 520A-0101-369

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1275 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: 10023

Source of Spill: UNKNOWN Spiller: NONE – AVIS Spiller Phone:
 Notifier Type: Fire Department Notifier Name: LT. SKEADOS Notifier Phone: (212) 570-4256
 Caller Name: LT. SKEADOS Caller Agency: 25 LADDER CO – FDNY Caller Phone: (212) 570-4256
 DEC Investigator: JMROMMEL Contact for more spill info: NONE Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/29/1995 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| GASOLINE | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

odor of gasoline in cellar of building. – request callback

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was ROMMEL 12/5/03 Transferred from Engelhardt to Rommel Closed and referred to 0202753 for remediation Rommel

Map Identification Number 131



COMMERCIAL BUILDING
 216 WEST 76TH STREET
 AKA 2148 BROADWAY

MANHATTON, NY

Spill Number: 0711724

Close Date: 07/07/2011
 TT-Id: 520A-0214-772

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1275 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: 10023

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Other
 Caller Name:
 DEC Investigator: AXDORONO

Spiller: AVIS BUDGET GROUP INC – COMMERCIAL BUILDING
 Notifier Name:
 Caller Agency:
 Contact for more spill info: AVIS BUDGET GROUP INC

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (973) 496-6942

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 02/06/2008 | | UNKNOWN | YES | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|--------------------------------|--------------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE | PETROLEUM | 0 | GALLONS | 0 | GALLONS | GROUNDWATER |
| XYLENE (MIXED) | HAZARDOUS MATERIAL | 0 | GALLONS | 0 | GALLONS | GROUNDWATER |
| BENZENE | HAZARDOUS MATERIAL | 0 | GALLONS | 0 | GALLONS | GROUNDWATER |
| MTBE (METHYL-TERT-BUTYL ETHER) | HAZARDOUS MATERIAL | 0 | GALLONS | 0 | GALLONS | GROUNDWATER |

Caller Remarks:

groundwater was tested in the area of a historic underground storage tank; it could have been impacted; test results showed elevated levels of these materials above togs; Ask for Phil Engle;

DEC Investigator Remarks:

Richard Reiss works for TRC environmental consultant.

Building is owned by Avis (Avis contact: Phil Engle 973-496-6942) Spilled material is all associated with a buried gasoline tank. Building has been sold and will be redeveloped. Underground storage tank shows contamination around it. This tank is scheduled to be excavated by April 2008. Upon excavation, proper endpoints/samples will be taken.

02/11/08–Hiralkumar Patel. left message for Mr. Reiss at TRC. 02/12/08–Hiralkumar Patel. received message from Mr. Reiss. spoke with Mr. Reiss. he will submit analytical data with site map.

02/14/08–Hiralkumar Patel. received sample analyticals from Mr. Reiss. found heavy soil and groundwater contamination. phase II was done by Langan engineering. left message for Tarek Khouri (212-479-5400) at Langan to submit report.

received email from Mr. Reiss with operator's information. Avis Budget lease this property and operates UST.

Richard Reiss, P.E. TRC Ph. (212) 221-7822 (O)

(917) 282-3102 (C) Fax (212) 221-7840 email: rreiss@trcsolutions.com

left message for Mr. Engle to submit report from Langan. sent email to Mr. Engle requiring submission of earlier reports, any phase I report and site history and future use.

Avis Budget Group, Inc. Attn.: Philip Engle 6 Sylvan Way Parsippany, NJ 07054 Ph. (973) 496-6942 Fax (973) 496-3441 email: philip.engle@avisbudget.com

02/15/08-Hiralkumar Patel. spoke with Mr. Engle. he will submit previous reports and property owner's information.

Downtown Realty Associates **owner of 210 W 76th Street** Attn. Susan Koff 167 River Road Rhinebeck, NY 12572-2067 PH. (845) 876-6618

left message for Ms. Koff.

02/19/08-Hiralkumar Patel. received message from Ms. Koff. called Ms. Koff, but she was busy and will call back.

02/22/08-Hiralkumar Patel. left message for Ms. Koff.

received phase II report from Mr. Khouri from Langan. abstract:

- site comprises two adjoining building lots: 2148 Broadway (aka 214-220 W 76th st, 2148-2158 Broadway) and 210 W 76th street (aka 208-212 W 76th Street) 90% of influent VOC levels from the initial steady state readings or if two months have elapsed since the start of SVE system operation, the air inlet wells will be switched to be used as air extraction wells and vice versa - if the influent air levels to the air discharge control system show a sustained decrease of >90 % in the VOC levels from the initial steady state level, then the air samples of the influent will be collected and analyzed via method TO-14 - if sustained decrease in influent VOCs of >90% is not observed, then post-remedial soil sampling will be performed at an appropriate time prior to when the construction of site building is completed, until which the proposed SVE system will be in operation - if the contamination levels in post-remedial soil samples exceed limit even after site construction activities are completed, then a SSDS will be installed to prevent vapor intrusion into the building

10/28/09-Hiralkumar Patel. 2:54 PM:- received message from Susan from Langa regarding comments/approval on SVE system design.

11/02/09-Hiralkumar Patel. 10:50 AM:- left message for Susan. 11:50 AM:- received call from Mr. Khouri. he mentioned that they are changing locations of proposed SVE points and will submit revised plan with more details. during conversation, asked Mr. Khouri about soil delineation north of sewer line in street. Mr. Khouri mentioned that owner is planning to conduct SVE installation work first as wants to start construction and will do soil delineation across street later on. informed Mr. Khouri that the department requires complete soil delineation along with installation of SVE pipes at vault area. 12:44 PM:- left message for (and sent email to) Mr. Ortega to submit work plan and work schedule for complete soil delineation (including soil sampling across street) before any comments on proposed SVE pipes installation in vault area.

11/04/09-Hiralkumar Patel. 12:00 PM:- received message from Mr. Khouri. he mentioned that they are planning to install borings tomorrow and will install SVE wells.

but as per Mr. Khouri, they were revising plan and i haven't received revised plan and i haven't approved any plan yet.

received message from DEC Lou Oliva. spoke with Lou. he received call from Steve Russo regarding approval of installation of SVE pipes. Lou asked about status. informed Lou that Langan is proposing to install SVE wells in coned vault area to expedite installation of crane for construction purpose. but the department requires complete soil delineation including soil boring

across sewer line under W 76th street before transferring case to remediation group and remediation group will review remedial action plan for comments.

3:57 PM:– left message for Mr. Khouri. 3:59 PM:– spoke with Mr. Gol and informed her that the department hasn't approved any work plan yet and Mr. Khouri left message informing that they are planning to do work tomorrow. asked Mr. Gol to clarify this. Ms. Gol will contact right person and asked him to call back. 4:14 PM:– received call from Mr. Khouri. he mentioned that they are going to do soil borings west of B-6 and inside vault area and have to install SVE wells before weekend as crane will be installed this weekend. asked Mr. Khouri to submit revised SVE plan and work schedule for complete soil delineation north of sewer line.

11/05/09–Hiralkumar Patel. received email from Mr. Khouri (at 4:54 PM on 11/04/09) including site map with revised locations of SVE wells. instead of 7 wells, now Mr. Khouri propose 5 wells: four on street and one in vault area. spoke with Mr. Khouri about revised plan and asked him to send email with more clarification as previous email only contains site map with well locations.

2:49 PM:– received email from Mr. Khouri: As I mentioned, the existing configuration is more than adequate to treat the contamination in question. As described in our design drawing, The system is designed to have a radius of influence of 20 feet. This is based upon Langan's experience in similar sandy/fill formations. The air flow rate per well is significantly greater than the minimum of 500 pore volume exchanges typically needed to achieve soil cleanup in such locations. Indeed, we selected a robust blower system to assure that we can pull plenty of air flow through the subsurface (positive displacement blower capable of up over 10 inches of mercury vacuum and up to 200 scfm). Referring to our attached design drawing, note that we have carefully arranged the SVE wells so as to assure that the radii of influence overlap considerably in the central portion of the contaminated zone. We expect that this overlap of SVE radii of influence will result in enhanced pore volume exchange in this zone. Note also that we purposely skewed the SVE wells closer towards the sidewalk to enhance this overlapping effect, without sacrificing our ability to remediate towards the center of the street. Over the system operational period, we expect to manage our air flows so that as specific SVE well clean-up, we will in turn divert more air flow to the more recalcitrant wells, in essence increasing their effective ROI. So, if SVE-5 proves to be more recalcitrant than other wells, we will easily divert more air flow to this well.

11/09/09–Hiralkumar Patel. 8:30 AM:– received email from Mr. Khouri. they installed one boring west of B-6 on 11/05/09 to a final depth of 19 ft bgs, where refusal encountered due to bedrock. maximum PID of 4.9 ppm was encountered at about 16 ft bgs. two soil samples collected for analysis. on 11/06/09, installed SVE-4 (within B2) with screen interval between 10 to 20 ft bgs and SVE-3 (within B4) with screen interval between 8 to 18 ft bgs.

11/10/09–Hiralkumar Patel. visited site. met Smita from Langan. they were doing soil delineation across the street on sidewalk. when i reached there, one boring was completed and Smita collected soil samples. found highest PID at 16–18 ft depth. found petroleum odors in soil stockpiled near boring. found four SVE wells installed on street.

11/12/09–Hiralkumar Patel. 1:55 PM:– left message for Susan at Langan.

11/13/09–Hiralkumar Patel. 10:00 AM:– spoke with Susan. she got sample analyticals back for sample B-7 (west of B-6) and B-8 (sample across the street). as per Susan, no contamination found in B-7 and contamination in B-8 at 16–18 ft depth is similar to diesel/fuel oil and not related to gasoline. asked Susan to submit sample data and will discuss if any more sampling needed.

11/16/09–Hiralkumar Patel. received email from Susan (at 4:33 PM on 11/13/09) including results of soil borings B7 and B8. B7 was

installed west of B6 and B8 was installed in the sidewalk on the north side of W. 76th Street, directly across from previously drilled B1. total of two soil samples were collected from each boring. one from the most impacted zone (if present) and one from the soil/bedrock interface. no contamination found in soil samples from B7 and soil sample at 26–28 ft depth from boring B8. found some VOCs and one SVOC above limit and high GRO and DRO in soil sample at 16–18 ft from boring B8.

| | | | |
|---------------------------|-------------|--------------------------|--|
| -----B-8-----limit | | | |
| 16–18 ft Naphthalene----- | 22,500----- | 13,000 | n-Propylbenzene-----8,400 |
| Isopropylbenzene----- | 2,410 | 1-Methylnaphthalene----- | 98,700 2-Methylnaphthalene-----152,000 |
| GRO----- | 564,000 | DRO----- | 22,800,000 |

12/08/09–Hiralkumar Patel. 3:45 PM:– received remedial action work plan from Susan.

12/11/09–Hiralkumar Patel. discussed with DEC Austin. after reviewing available information, Austin asked to transfer case to DEC Vadim.

case transferred from DEC Patel to DEC Vadim.

12/15/2009: This spill case was transferred to A. Doronova. – AD The Remedial Action plan proposes installation of SVE system, which involves discharges to atmosphere. Called and spoke with Ms. Susan Bianchetti regarding Stipulation Agreement for the site. Asked her for contact person info. Gave my e-mail address. AD

12/16/2009: Received a phone call from Mr. Khouri of Langan. He asked for a meeting with DEC to discuss the RAP and Stipulation Agreement. AD

12/17/2009: Discussed time for meeting with J. Kolleeny of DEC. Scheduled the meeting for December 22, 2009. Called to Mr. Khouri and confirmed the meeting date. Mr. Khouri told me that the client's attorney would like to attend the meeting. AD

12/18/2009: Discussed this site with John Urda of DEC. He will attend the meeting as well. AD

12/22/2009: I, Jon Kolleeny and John Urda attended the meeting with Susan Bianchetti and Tarek Khouri of Langan Eng. and Steven Russo of Sive Paget & Riesel P.C. (client's attorney). The proposed RAP and need for Stipulation Agreement were discussed. It was agreed that Mr. Russo will explain to his client that signing the Stipulation Agreement is necessary for proceeding with the proposed course of remedial actions (SVE system). AD

01/06/2010: Contacted Susan Bianchetti of Langan Eng. and asked for a Respondent info for Stipulation Agreement. AD

01/07/2010: Received the Respondent contact info. Prepared the Stip with CAP. AD

01/08/2010: Forwarded Stip to J. Urda for review. AD

01/25/2010: Stipulation Agreement was signed by Respondent.

01/26/2010: The RAP does not have SVES data sheet, benzene concentration estimate and does not propose air sampling for

laboratory analysis. Discussed the RAP with J. Kolleeny of DEC. Confirmatory soil sampling is needed to evaluate effectiveness of the remediation. Contacted S. Bianchetti of Langan and requested to submit missing data. AD

02/17/2010: Received the requested information. Discussed it with J. Kolleeny of DEC. AD

02/18/2010: Issued an approval letter for the RAP with some modification regarding frequency of influent and effluent air sampling. DL e-copy to eDocs. AD

08/09/2010: Received an e-mail from:

Ms. Doronova,

Attached is our monthly progress report for the SVE system installed in accordance with the December 8, 2009 Remedial Action Work Plan. Let us know if you have any comments.

Thank you, Jason

Jason J. Hayes, LEEDAP Project Manager Direct: 212.479.5427 Mobile: 917.859.4908 Fax: 212.479.5444

Langan Engineering & Environmental Services Phone: 212.479.5427 Fax: 212.479.5444 360 West 31st Street, 8th Floor New York, NY 10001 www.langan.com

DL the report to eDocs. AD

09/07/2010: Received an e-mail from Veronica Tilgao:

Ms. Doronova,

Attached is our August 2010 monthly progress report (Progress Report No. 2) for the SVE system installed in accordance with the December 8, 2009 Remedial Action Work Plan.

Let us know if you have any comments. Thank you.

Veronica Tiglao, LEED AP Assistant Project Manager

Direct: 212.479.5492 Mobile: 646.957.0997

Langan Engineering & Environmental Services Phone: 212.479.5400 Fax: 212.479.5444 21 Penn Plaza 360 West 31st Street, 8th Floor New York, NY 10001-2727 www.langan.com

DL the report to eDocs. Will review. AD

10/19/2010: Received a phone call from Mr. Hayes of Langan. He told me that the SVE system operated on the site since June 2010, and that latest sampling results show VOCs vapor removal is reaching asymptotic levels. Also, construction requirements for the

TCO (installation of utility connection and construction of a new street and sidewalk) required the system to be removed. Mr. Hayes asked for permission to shut down the system. Discussed this with J. Kolley. Later talked with Mr. Hayes. Give him permission to shut down the system and requested to submit a brief work plan for confirmatory post-remediation soil sampling. AD

11/03/2010: Received an e-mail from Langan saying:

Hi Ainura,

As discussed during our October 20, 2010 telephone conversation, we have prepared the attached confirmatory (post-remedy) soil sampling plan for your review and approval. Let us know if you have questions or comments.

Thank you, Jason

Langan Engineering & Environmental Services Phone: 212.479.5427 Fax: 212.479.5444

DL to eDocs the soil sampling work plan. Will review. AD

11/09/2010: Reviewed the work plan. Langan proposes to collect 4 confirmatory soil samples from five locations with historically high levels of VOCs. AD

11/10/2010: Issued and sent an approval letter to Mr. Wolpert. DL the letter to eDocs. AD

03/03/2011: Received an e-mail from Jason:

Hi Ainura,

We plan to complete the endpoint soil sample borings for 2148 Broadway on March 12, 2011. Let me know if you have any questions or comments.

Regards,

Jason

Jason J. Hayes, LEEDAP

AD

05/23/2011: Received a Spill Closure Report submitted by Langan. DL only part of pdf copy of the report to eDocs due to its huge size (260 MB). Will require resubmit e-copy of the report. Will review. AD

06/28/2011: Reviewed the report. It stated that according to soil analytical results, VOCs were non-detect in all confirmatory post-remediation soil samples with the exception of one sample EB -04 collected at 11-13 feet below grade surface, which had elevated levels of xylenes and trimethylbenzene. Based on the remedial actions conducted and the lack of potential pathways of exposure, the consultant requested closure of the spill.

Summary of the remedial actions at the site:

11 USTs were removed and disposed off-site. The entire site was excavated to 40 feet below grade and 10 to 20 feet into bedrock. 20,653 tons of petroleum-contaminates soil were removed and disposed of site. A vapor-barrier was installed along the building's subsurface walls and floor slab. The SVE system was installed along the sidewalk and operated from June to October 2010, when it was shut down due to recovered vapors reaching asymptotic levels. 233.61 pounds of VOCs were extracted by the SVE system. The potential for impacts to human health are very low considering:

- 1) installation of a vapor barrier;
- 2) concrete cover over the entire site;
- 3) no exposed soil at the site property;
- 4) depth to groundwater at the site;
- 5) groundwater in the area of New York City is not a source of drinking water.

The residual subsurface petroleum impacts are expected to degrate over time through natural attenuation. Called and spoke with Mr. hayes of langan regarding resubmission of e-copy of the report. It will be submitted shortly. AD

06/29/2011: Discussed the closure of the spill with J. Kolleeny of DEC. Based on all data provided, the remedial actions performed and the lack of potential pathways of contamination exposure, it was decided to approve closure of the spill. Spill Closure letter will be issued when revised pdf copy of the closure report will be submitted to DEC. AD

07/07/2011: Received revised pdf copy of the report. DL it to eDocs. Case closed. AD

| | | | | |
|--|---|--|--------------------------------------|-------------------------------|
| Map Identification Number 132 | STREET | | Spill Number: 0608530 | Close Date: 10/26/2006 |
|  | AMSTERDAM AVE AT WEST 74T | MANHATTAN, NY | | TT-Id: 520A-0098-129 |
| MAP LOCATION INFORMATION | | ADDRESS CHANGE INFORMATION | | |
| Site location mapped by: ADDRESS MATCHING | | Revised street: AMSTERDAM AVE / W 74TH ST | | |
| Approximate distance from property: 1283 feet to the WSW | | Revised zip code: 10023 | | |
| Source of Spill: COMMERCIAL/INDUSTRIAL | | Spiller: MARTIN SCORSESE – SHINE A LIGHT LLC | Spiller Phone: (212) 581-1548 | |
| Notifier Type: Affected Persons | | Notifier Name: | Notifier Phone: | |
| Caller Name: | | Caller Agency: | Caller Phone: | |
| DEC Investigator: SMSANGES | Contact for more spill info: PHILLIP MURPHY | | Contact Person Phone: (917) 232-1291 | |

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Any Type of RP Including No RP – No DEC Field Response – Corrective Action by Spill Response Not Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/25/2006 | | OTHER | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIESEL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | AIR |

Caller Remarks:

CONTACT PERSON ON SITE: JASON FRITZ # 646-483-5920 :

THERE ARE TWO TRACTOR TRAILER SIZE DIESEL GENERATORS AT THIS LOCATION IN THE STREET:

THEY HAVE BEEN THERE RUNNING SINCE MONDAY MORNING, AND THE FUMES AND SMOKE ARE AFFETING THE AIR AND DIRECTLY AFFECTING THE APARTMENT BUILDING AT THIS LOCATION: THE FUMES AND SMOKE WERE SO DRASTIC ON MONDAY 10/23/2006 THAT THE FIRE DEPT RESPONDED:

CALLS HAVE BEEN MADE TO THE PRODUCTION COMPANY AND THE MAYOR'S FILM OFFICE WITH NO RESPONSE: AND EPA AIR QUALITY COMPLAINT WAS MADE BY THE CALLER ON MONDAY, WITH REFERENCE # 1478252:

CALLER WAS ASSURED BY 311 OPERATOR THAT TESTS WOULD TAKE PLACE ON TUES. 10/24/2006 BUT NONE HAVE BEEN COMPLETED AS OF YET: THE PROBLEM IS STILL ONGOING: HEADACHES AND NAUSEA ARE A PROBLEM FOR RESIDENTS:

DEC Investigator Remarks:

complaint forwarded to DEC Air Group

Map Identification Number 133 **THE OPERA OWNERS INC** **Spill Number: 9708318** **Close Date: 02/15/2008**
 2166 BROADWAY NEW YORK, NY TT-Id: 520A-0098-735

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1289 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|--|---|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: DAVE YUDELSON – AMSTERDAM & 76TH, LLC | Spiller Phone: (212) 421-2150 |
| Notifier Type: Affected Persons | Notifier Name: VERRA LEONETTI | Notifier Phone: (212) 868-8320 ext. 3 |
| Caller Name: SCOTT KONNER | Caller Agency: KONNER, TEITELVAUM,LLP | Caller Phone: (212) 697-8500 |
| DEC Investigator: rvketani | Contact for more spill info: VERRA LEONETTI | Contact Person Phone: (212) 868-8320 ext. 3 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
|------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 10/13/1997 | | UNKNOWN | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| MOTOR OIL | | PETROLEUM | 1000 | GALLONS | 0 | GALLONS | SOIL, GROUNDWATER |

Caller Remarks:

OIL IS LEAKING IN BUILDING FROM PARKING GARAGE NEXT DOOR. IT IS PENETRATED THROUGH A WALL & IS ON A PAD UNDERNEITH THE ELEVATOR. LAB RESULTS CONFIRM IT IS MOTOR OIL.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was M TIBBE see also 9009666 & 0008420.

10/24/05–Vought–Spill transferred from Tibbe to Vought. Contract Payment Package (National)–Weekly well monitoring. (6/1/05–7/31/05).

03/07/06–Thomas– Contract Payment Package– National Env. Mgmt– Fluid monitoring and recording. Preparation of hydrographs and tables for report.(08/01/05–09/30/05).

03/15/06–Thomas– Contract Payment Package–(National)– fluid level monitoring and recording, groundwater sampling(10/01/05–11/30/05).

04/28/06–Thomas– Contract Payment Package– (Severn)– lab analysis of MW samples (02/01/06–02/28/06).

09/14/06–Vought–Contract Payment Package–(National)– VEFR and well monitoring and Site Status Report (06/01/06–07/31/06).

11/16/06–Vought–Contract Payment Package (STL)–Groundwater sample analysis (08/30/06–09/14/06).

11/29/06–Vought–Contract Payment Package (National)–Biweekly VEFR, well monitoring and liquid disposal (08/01/06–09/30/06).

1/11/07–Vought–Spill transferred from DEC Vought to DEC Ketani as per DEC Austin due to recent property construction, destruction of DEC monitoring wells and need for review.

2/15/07 – Raphael Ketani. The initial spill was oil from a neighboring garage that passed through an adjoining wall and appeared on the slab below an elevator in the building next door.

The PBS case is #2–158518. There is a 10,000 gals. tank in service with #6 oil. The owners are listed as: The Opera Owners, Inc., 2166 Broadway, NY, 10024. Jay Tacooram is the contact at (212) 769–4151. Mail goes to: Lawrence Properties, 855 Avenue of the

Americas, NY, 10001. The contact there is Jack Terebelo at (212) 868-8320.

I reviewed the case file and found the following documents:

2/24/92: this letter is attached to a letter dated 10/3/97 from Materials Technologies. It is from Walters & Samuels and states that the garage plans to close the 5 550 gal. gasoline tanks. The reason for closure is that it isn't profitable to sell gasoline. The Sylvan Corp. (owners of the garage) believe the tanks are in good condition.

2/27/97: NY Testing Laboratories, Inc. oil sample analysis results. Attached is a 7/7/97 letter from Goldco Consulting stating they couldn't find any record of that there was ever any fuel oil storage at 207 W. 76 Street. Also, attached is a 6/9/97 cover letter with report from Phoenix Environmental to Alvin Petroleum Systems regarding the oil seep into their building's basement and an oil fingerprint analysis of the oil.

3/10/97: letter from Konner, Teitelbaum LLP (counsel to Opera Owners) to Champion Parking regarding oil seeping into the Opera Owners building, and determination that the oil originates from Budget Rent A Car.

7/7/97: letter from Goldco Consulting to Walter & Samuels at 419 Park Avenue stating that they did a Dept. of Buildings records search and could not find any evidence that the garage ever had fuel or oil storage tanks on site.

12/19/97: letter from PSI states that the oil is #6, but that it can not be determined where the oil is coming from due to the numerous sites that use oil in the area. The letter stated that the garage was not the source of the oil.

5/20/98: letter from Pedneault Associates, Inc. to Chris Tomasello of DEC stating that the sample of oil from MW-3 was analyzed and determined to be a mix of diesel fuel and motor oil.

5/20/98: letter from Pedneault Associates, Inc. to Chris Tomasello of DEC stating that the samples of oil from MW-1, MW-2 and MW-3 were analyzed and determined to be a heavy weight petroleum product - #5 or #6 oil.

5/25/98: letter from Pedneault Associates, Inc. to Chris Tomasello of DEC stating that the drill cuttings sample from MW-6 had 98 ppb bromomethane, 21 ppb naphthalene, and 245 ppb MTBE. The drill cuttings from MW-7 had 205 ppb MTBE.

12/29/98: letter from Pedneault Associates, Inc. to Chris Tomasello of DEC stating that the oil sample from MW-4 contained diesel range organics.

2001: report from Miller Environmental Group summing up the situation at the site and the fact that it could not be determined where the #6 oil had come from. They recommend injecting Biosolve to make the #6 oil more mobile and using absorbent socks.

7-9/2002: report from Miller Environmental Group stating that they are using absorbent socks to collect the oil as needed and that they tried to seal the elevator shaft wall in the building. However, the oil continued to seep through. They again recommended using Biosolve to reduce the viscosity of the oil and then vacuum collect it.

6/7/05: report from Miller Environmental Group for the period 9/02 to 2/05 stating that they recommend continuing the vacuum recovery of the oil/water mixture and enclosing hydrographs and groundwater flow maps. Groundwater is highest at MW-7 and they state that it flows southeast.

9/2005 (9/14/05): report from National Environmental Management status report for the period 3/05 to 7/05. It states that MW-1 to MW-4 are impacted by free product, with MW-3 being the most impacted. Hydrographs are enclosed that show the level of product.

2/23/06: analytical report from Severn Trent Laboratories for MW-4, MW-5, MW-6 and MW-7. All of the analytical results for VOCs came up non-detect.

National Environmental Management is the contractor for the long term. Their number is (631) 580-3191 and the contact is Greg Menegio at Enviroscience Consultants. I contacted Mr. Menegio and asked him whether he was familiar with the case. He said he wasn't, but he asked that I give him some time to do so and he will get back in touch next week. I told him that would be alright.

2/26/07-Vought-Contract Payment Package (National)-Monthly VEFR and well monitoring, project status report (10/1/06-11/30/06).

02/28/07-Vought-Contract Payment Package (STL)-Groundwater sample analysis (11/16/06-12/18/06).

3/8/07 - Raphael Ketani. The scheduled site visit with Mr. Menegio and his assistant took place today. His assistant showed me the wells that were installed in the sidewalk. She said that the only well with significant oil was MW-3. She said it was #6 oil. Mr. Menegio told me that the building was scheduled for demolition in the near future. I told him that maybe with the demolition and exposed subsoil, we will be able to see what is generating the oil. Otherwise, there was nothing to see at the site.

3/9/07 - Raphael Ketani. I sent a letter to Mr. Menegio stating that they should continue to do oil collection from MW-3 and once the building is demolished, then a soil investigation should take place.

3/14/07 - Raphael Ketani. I received the analytical results for groundwater samples taken from MW-6 and MW-7 on 2/14/07. MW-6 was completely non-detect. MW-7 had estimated hits for isopropylbenzene of 1.7 ppb and for N-propylbenzene of 1.2 ppb.

5/2/07 - Raphael Ketani. I received the Contractor Pay Packages for work on site that was done by National Environmental Management Associates Corp. The work period is from 12/1/06 to 1/31/07. Invoice number is #285. The work consisted of VEFR and monitoring the wells, use of low value equipment, VEFR trucks, sonic interface probe, supplies of gloves and hexane, and travel to site. The packages were found to be acceptable and were sent to Procurement.

I received the Contractor Pay Packages for work on site that was done by National Environmental Management Associates Corp. The work period is from 2/1/07 to 3/31/07. Invoice number is #323. The work consisted of VEFR and monitoring the wells, use of low value equipment, VEFR trucks, sonic interface probe, sample wells MW-6 and MW-7, supplies of gloves and hexane, travel to site, review files and consultation with DEC staff. The packages were found to be acceptable and were sent to Procurement.

5/3/07 - Raphael Ketani. I received the Contractor Pay Packages for work on site that was done by SEVERN TRENT Laboratories. The work period is from 2/21/07 to 3/6/07. Invoice number is #22021726. The work consisted of processing groundwater samples from MW-6 and MW-7. The packages were found to be acceptable and were sent to Procurement.

5/10/07 - Raphael Ketani. I received the Contractor Pay Packages for work on site that was done by SEVERN TRENT Laboratories. The work period is from 11/1/05 to 11/30/05. Invoice number is #42052661. The work consisted of processing groundwater samples from MW-5 to MW-7. The packages were found to be acceptable and were sent to Procurement. However, this pay package is out of sequence (submitted very late) with the others that have been processed. It was received by myself on the date at the upper left.

6/11/07 – Raphael Ketani. Mr. Menegio (631) 580–3191, ext 22(office)/(631) 905–4869(cell) e–mailed me today to state that the building next to the site had been torn down. He asked whether DEC wanted to investigate the site. I told him Yes, and to get the owners' name, phone number, and address.

6/21/07 – Raphael Ketani. I sent a Request for Entry letter to Amsterdam & 76TH, LLC, 60 Columbus Circle, NY, 10023–5802 for access to their property at 207–211 W. 76 Street.

6/29/07 – Raphael Ketani. Dave Yudelson, atty. (917) 295–6449 for Amsterdam & 76th LLC, called to say that oil is flowing out of the basement wall of the Opera Owners, Inc. building that is adjacent to his client's property. He asked that we meet at the site at 76th Street and Amersterdam Ave. at 2PM so that he can show me the problem. I told him that would be fine. I contacted Mr. Menegio and asked him to be there, also. He said he will.

Dave Yudelson (212) 421–2150/cell (917) 295–6449 is the attorney for the owners. He works for Sive Paget & Riesel, P.C., 460 Park Avenue, NY, 10022–1906.

Greg Menegio from National Environmental/Enviroscience and I met Mr. Yudelson at the site. The construction foreman and his assistant let us enter the site where the front of the garage use to be on West 76th Street. We saw that a very large area had been cleared of buildings. The area fronted not only on West 76th Street, but also on Amsterdam Avenue and West 77th Street. Two giant rock chiseling machines were working to break up the bedrock in the site. The bedrock was gneissic rock with some mica schist of the Hartland Formation. We were standing on a ledge about 25 feet above the existing excavation floor. Mr. Yudelson said that the excavation will be down to 40 feet. This ledge was adjacent to the corner of the Opera Owners building where Mr. Yudelson said oil had been pouring out of the corner of the building. He said they had collected a lot of the escaping oil. Mr. Yudelson commented that the blue tarp on the Opera Owners building's wall was there to cover some of the seeping. We could see a little oil leaking out of the wall towards the bottom and running down to the excavation floor. Some of the soil on the floor was contaminated with the oil. An excavator was used to expose more of the wall and more of the leaking oil. Eleven pictures were taken. Mr. Menegio didn't have any collecting equipment with him and there was no safe way to gain access to the floor of the excavation and see the leaks up close. So everyone agreed to revisit the site for sampling and a closer look on 7/3/07.

7/3/07 – Raphael Ketani. The field sampling event took place today. I was met on site by the following:

Dave Yudelson, attorney for the owners of the neighboring property Craig Puerta, ELM, engineer, consultant for Mr. Yudelson Scott, ELM, Mr. Puerta's assistant Greg Menegio, Enviroscience/National Environmental, PIN consultant for DEC Lori Mead, Enviroscience/National Environmental, Mr. Menegio's assistant

Mr. Yudelson pointed out dark stains on the below grade part of the wall of the Opera Owners building. He said he believed that the oil is from Opera Owners as there are only individual seepage stains on the wall and because the oil is flowing from the wall. I told him I wasn't so sure about that. I asked him about the large oil tank that was under the sidewalk in front of the former garage. He said it was removed and sent to a scrap yard. I asked him whether any oil was found between the tank and the garage. He said No. He said that the tank was removed because a strong foundation was needed at this location for the construction crane that will be placed here. I asked Mr. Menegio where some of his wells were. He said that MW–4 was in the basement of the garage in the corner where soil sampling will take place. He added that MW–3 is under the pile of lumber that is sitting where the crane will go. These two wells could not be sampled.

Oil was running out of the wall and the soil under the sidewalk at the southwest corner of the former garage location. Vapor levels were 44.1 ppm at the base of the wall just above the soil and 970 ppb where the oil was running out of the sidewalk soil. Mr. Menegio took split soil samples for himself (DEC) and Mr. Puerta. Mr. Menegio was using protective gloves and took samples S-2 and S-3 from about 5 feet above the pool of oily water that was collecting below in the corner. The samples were put into sterile, clean small glass jars and sealed immediately. Next, Lori and Mr. Menegio sampled the oil from MW-1 and MW-2. The oil was black, thick and about 8 inches in each well, despite the garage being torn down.

Next, we met Jay Tacooram, the super. of Opera Owners. He took us to the basement and the subbasement. We looked at the tank. There was a placard that stated the tank was installed in 2001. Jay said that he came on-board before the tank and fill pipe were replaced. He said that they were replaced in 2001 as part of a general refurbishing of the building shortly after it went co-op. He said that the oil seeping into his building is much improved since the garage was torn down. Lori took pictures of several oil seeps on the east wall of the tank room. There were several oil streaks on the east subbasement wall just outside the elevator. The streaks start at the level of the subbasement ceiling/basement floor. Jay showed us the oil streaks in the elevator shaft. These also started at the ceiling/floor level. All of the streaks appear to be at the same level as where the oil seeps on the outside brick wall start. Jay took us to the basement level. He showed us that this level is where the red brick sits on the lower larger blocks. Jay added that this is where the blue tarp covering other outside oil seeps is situated (these seeps were running at the time of the garage removal, but have since stopped – unlike the other lower, outside oil seeps). I didn't see any inside oil seeps at the basement level. With this, our meeting ended.

I told Mr. Menegio to run the soil samples for 8260 and 8270, and to run the oil samples for type of oil and age. He said he will do this. I also told him that the oil seeps in the Opera Owners building will have to be cleaned up and the wall repainted. Lori said this will be done. I asked Mr. Menegio when he will send the soil samples. He said later today. I asked him whether he had ice packs to preserve the samples. He said that he will get sufficient ice to pack the samples.

7/6/07 – Raphael Ketani. Craig Puerta of ELM e-mailed me that he sent his split samples to the labs.

7/9/07 – Raphael Ketani. Ms. Mead called me and said that she is arranging for a cleaning service to clean the walls at the Opera Owners building.

Later, she e-mailed that the cleaning will take place on July 12, 2007.

7/12/07 – Raphael Ketani. I received analytical results for groundwater samples that were taken from MW-6 and MW-7 on 6/22/07. The STL job number is #220-1965-1. The samples were run for method 8260 only. With the exception of isopropylbenzene at 1.6 ppb in the MW-6 sample, all of the results were at or below the MDL (essentially non-detect).

8/2/07 – Raphael Ketani. I received the Contractor Pay Packages for work on site that was done by MILRO Associates Inc. The work period is from 7/12/07 to 7/12/07. Invoice number is #28244. The work consisted of cleaning the basement and elevator shaft walls inside of Opera Owners, as per the instructions I gave Mr. Menegio on 7/3/07. The packages were found to be acceptable and were sent to Procurement.

8/3/07 – Raphael Ketani. I received the Contractor Pay Packages for analysis of groundwater samples by Severn Trent Laboratories. The work period is from 6/26/07 to 7/10/07. Invoice number is #22022752. The work consisted of analyzing 2 groundwater samples from MW-6 and MW-7 that were submitted by Greg Menegio of Environscience/National Environmental. The packages were found to be acceptable and were sent to Procurement.

8/8/07 – Raphael Ketani. I received analytical results for samples that were taken from S–1, S–2, S–3, and MW–1 on 7/3/07. The STL job number is #220–2060–1. The three soil samples were taken from the pit on the adjacent property and under the sidewalk, and the groundwater sample was of the oil floating in Well MW–1.

S–1 (at the base of the pit and Opera Owners wall) had only 2 low hits of n–propylbenzene and sec–butylbenzene with 8 very low SVOC hits.

S–2 (under the sidewalk) had 29000ppb naphthalene, 3900ppb n–butylbenzene, 1500ppb sec–butylbenzene, 3100ppb n–propylbenzene, 1100ppb isopropylbenzene, 1000ppb benzene, and from 1100ppb to 20,000ppb of the SVOCs naphthalene, acenaphthene, flourene, phenanthrene, anthracene, pyrene, benzo(a)anthracene and chrysene.

S–3 (also under the sidewalk) had 9 VOC hits from 320ppb to 24000ppb and 9 SVOC hits from 760ppb to 32,000ppb – most of which are non–benzo series analytes. These results are similar to those of S–2.

MW–1 (oil) is listed as one sample that was received and processed, but there are no analytical results on paper. The Chain of Custody form in the back shows that an oil sample was also taken from MW–2. However, this sample is not even listed as having been received. I called up Mr. Menegio (631) 580–3191 and asked him what happened to samples MW–1 and MW–2. He said the lab told him there wasn't enough product to do the type of oil analysis and the age analysis for each sample. However, when he went back to the site to collect more oil, he found that wells MW–1 and MW–2 had been destroyed. Mr. Menegio said he will talk to the lab and see if they managed to analyze the oil anyway.

I remembered Mr. Yudelson telling me that he will take out all of the soil under the sidewalk and the sidewalk itself. However, I thought he was not going to do this so soon as to interfere with the taking of samples from the wells in the near future.

8/20/07 – Raphael Ketani. I looked up the PBS for the garage that was next door to the site. Their PBS is #2–604789. It lists five 550 gallon tanks that had gasoline and were closed and removed. However, the large fuel oil tank was never registered.

8/21/07 – Raphael Ketani. I spoke to Mark Tibbe, Geological Technician III of Region 2 DER, Unit B, regarding the site and what he saw when he first inspected the Opera Owners' tank room in 1997. He said that the tank room is a giant vault which extends upward to just under the sidewalk. He said it's all open air and that the fill pipe is suspended in the air from the steel beams just below the sidewalk to the tank. He said the fill pipe connects to the tank directly and that he never saw any signs of leakage on the pipe or from the pipe. Mr. Tibbe added that the fill box is above the steel beams and is imbedded in the sidewalk. He said that he never saw any signs of leakage from the fill box. He stated that he never saw signs of leakage from the fuel tank and that the oil seeping through the tank room walls started high above the tank.

8/22/07 – Raphael Ketani. I finished reviewing the caserecord correspondence files for the site.

As a result of my review, I am submitting a Case Initiation Form.

8/24/07 – Raphael Ketani. I received the Contractor Pay Packages for work on site that was done by National Environmental Management Associates Corp. The work period is from 4/1/07 to 5/31/07. Invoice number is #390. The work consisted of VEFR and monitoring wells MW–1, MW–2, and MW–3, diposal of water and oil, use of low value equipment, VEFR trucks, maintenance of the VEFR trucks, sonic interface probe, supplies of gloves and hexane, travel to site, and tolls. The packages were found to be acceptable

and were sent to Procurement.

9/17/07 – Raphael Ketani. A Contractor's Payment Application package for Severn Trent Laboratories arrived in my absence. The work period is from 7/5/07 to 8/3/07. The invoice number is #22023027. The work consisted of processing soil samples S-1, S-2, and S-3, and processing groundwater samples from MW-1 and MW-2. The packages were found to be acceptable and were sent to Procurement.

10/1/07 – Raphael Ketani. I called Bonnie Ridgely (518) 474-6124 of the Albany AG's office and asked her whether her office had a case for the site. She asked whether it was a petroleum spill. I said it was. She said that her office handles the spills and they have not seen anything for Opera Owners.

10/4/07 – Raphael Ketani. Today I received an e-mail from Mr. Menegio with the soil analytical results and the oil typing and aging. The oil type is #6, but the lab was not able to determine the age of the product. Soil sample S-1 was below TAGM RSCOs, but samples S-2 and S-3 had several exceedences each. Both S-2 and S-3 (from below the sidewalk) had high exceedences for benzene, naphthalene, benzo(a)pyrene, and chrysene.

10/5/07 – Raphael Ketani. I spoke to Jay Tacomam, the super. for Opera Owners. He said he has had no problems with oil seeping through the walls since the garage and the soil under it were taken away. He said the elevator shaft and the sub-basement walls have remained clean.

10/20/07 – Raphael Ketani. I asked Mr. Menegio to have Ms. Mead swing by Opera Owners the next time she is in the area, and to look at the condition of the area where the wells are, or were, and to let me know what she sees. He said he will do this.

12/14/07 – Raphael Ketani. Mr. Menegio had contacted me on 8/8/07 regarding the status of the monitoring wells. He informed me that wells MW-1 and MW-2, which had recently been sampled, had been destroyed.

I am submitting the Final ISR for this PIN case to Randall Austin, Chief of the Spills Unit in Region 2, for his signature.

12/18/07 – Raphael Ketani. The FINAL ISR was signed by myself, Mr. Austin, and Lou Oliva, the Regional Attorney. It was then sent to Dennis Farrar of Albany Remediation. A penalty matrix was attached.

I sent a letter to Dave Yudelson asking him for the manifests for the contaminated soil and water removal.

1/8/08 – Raphael Ketani. Mr. Yudelson sent me an e-mail that he had the manifests for the soil that was removed from the location of the former garage.

1/9/08 – Raphael Ketani. A Violation Detail Sheet was sent to Dennis Farrar of Albany Remediation.

1/14/08 – Raphael Ketani. I received the Contractor Pay Packages for work on site that was done by National Environmental Management Associates Corp. The work period is from 6/1/07 to 7/31/07. Invoice number is #475. The work consisted of researching project history as directed by DEC, quarterly groundwater sampling of MW-6 and 7, site visit with DEC and neighboring property's attorney, phone conference with DEC, site visit with DEC and neighboring property's attorney with inspection of elevator shaft at site and collection of soil and water samples, gauge wells, final site visit to assess conditions of wells. The packages were found to be acceptable and were sent to Procurement.

1/29/08 – Raphael Ketani. I received the Contractor Pay Packages for work performed by National Environmental Management Associates Corp. The work period is from 8/1/07 to 9/30/07. Invoice number is #556. The work consisted of preparation for writing and writing the bi-annual site status monitoring report. The packages were found to be acceptable and were sent to Procurement.

2/7/08 – Raphael Ketani. I received the Contractor Pay Packages for work performed by National Environmental Management Associates Corp. The work period is from 10/1/07 to 1/31/08. Invoice number is #614. The work consisted of reviewing the well fluid level results and preparing summary tables, a site inspection for well damage and the taking of photographs, and conference calls between National Environmental and NYSDEC. The packages were found to be acceptable and were sent to Procurement.

2/15/08 – Raphael Ketani. Mr. Yudelson had told me in the recent past (about 3 months ago) that the construction crew had removed the large fuel tank under the sidewalk, and had removed the soil surrounding the groundwater monitoring wells that had been installed. The destruction of the monitoring wells had been confirmed by the consultants from National Environmental. Documentation of the oil contamination has been produced (via measurements of free product in the wells, pictures of the oil seeping through the basement walls at Opera Owners, and soil samples that were taken in 2007). Opera Owners has remained clean since the demolition of the garage. In my best determination, there is nothing left to sample or investigate at the site or the former garage site and the spill has been remediated. The Division of Legal Affairs in Albany and the Attorney General's office will pursue the legal settlement.

Based upon the above reasons, I am closing the spill case.

2/25/08 – Raphael Ketani. Mr. Yudelson e-mailed me that he is sending the manifests for the soil that was removed at the former garage site.

2/26/08 – Raphael Ketani. I received the thick package of soil manifests from Mr. Yudelson. I gave them to Paul, the Spills mail/E-docing clerk, to be scanned into the database.

8/13/08 – Raphael Ketani. Sue Zeun from the Attorney General's office called to request a copy of all of the E-docs on disc. She said that the case is going to court on September 9, 2008.

Sue contacted Robert Leung of the Unit C of Region 2 DER and he transferred copies of all of the E-docs to disc and mailed the disc to her today.

8/22/08 – Raphael Ketani. I researched some background information that may be helpful regarding the case. The garage address is 207-211 W. 76. There were 5 USTs. All had gas and all were closed in place on 2/1/92. From the case notes, the tanks were removed about 5/2007, when the building was demolished. The PBS is #2-604789.

According to Property Shark, Opera Owners primary address is 2162 Broadway. The building spans the addresses from 2162 to 2168. The block and lot are 1168 and 22. An alternate address is 213 W. 76 Street.

3/20/09 – Raphael Ketani. Mr. Yudelson called inquiring about the status of the spill case. I told him that the case had been closed some time ago in 2008. I told him the PIN was still open as the OAG was still pursuing the case. He said he knew as the owners of the former garage were being sued.

7/29/15 – Raphael Ketani. Dan Schlesinger (518) 776-2206 of the Albany AOG is the new attorney for the PIN case.

Map Identification Number 134 **OPERA APARTMENTS** **Spill Number: 0008420** **Close Date: 04/11/2003**
 2166 BROADWAY MANHATTAN, NY TT-Id: 520A-0098-711

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1289 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--------------------------------|---|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN – Unknown | Spiller Phone: |
| Notifier Type: Local Agency | Notifier Name: NYC FIRE DEPT | Notifier Phone: (212) 628-2900 |
| Caller Name: CHERELLE MAYFIELD | Caller Agency: DEP | Caller Phone: (718) 595-6777 |
| DEC Investigator: MCTIBBE | Contact for more spill info: DISP 423 NYC FIRE DEPT | Contact Person Phone: (212) 628-2900 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/18/2000 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

INFO RELATED BY NYC FD TO DEP-NO FURTHER INFO AT THIS TIME.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIBBE Originally assigned to Sangesland – Re-assigned to Tibbe on 2/19/2002 due to prior work at this site

REFER TO 9708318 & 9009666.

Map Identification Number 135

VAULT #V3716

Spill Number: 9811576

Close Date: 10/27/2004



27 WEST 72ND ST

MANHATTAN, NY

TT-Id: 520A-0092-557

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1299 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Affected Persons
 Caller Name: FRANK MASSERIA
 DEC Investigator: CAENGELH

Spiller: UNKNOWN
 Notifier Name: MR MCGUGH
 Caller Agency: CON EDISON
 Contact for more spill info: FRANK MASSERIA

Spiller Phone:
 Notifier Phone:
 Caller Phone: (212) 580-6763
 Contact Person Phone: (212) 580-6763

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/15/1998 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 15.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

CON ED #121956 – 15 GALLONS FOUND IN TRANSFORMER VAULT – SPILL CONTAINED AND WILL BE CLEANED UP BY CON ED

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was ENGELHARDT

12/15/98: ERT Shah – occurred at 9 AM. There is sump pit but pump was not operating at time of arrival. No sewers/waterways. Has been sampled. Flush truck on location, going to do pressure test.

On location at 1245 hrs – there is sediment in vault. Sump filled with oil <5 gallons. Transformer oil level at min operation leve ~30-50 gallons missing. Max volume 392 gallons. Found bottom leak. Upon inspecting inside of plumbing from sump found oily residue inside pipe so probably got to sewer. Historic PBC concentration 14 ppm. Treating cleanup as 50-499 until lab results come back. Going to do initial cleanup – drain, remove, reclean, replace. (CAE)

~~~~~ E2MIS 121956

12/15/98 10:11 O.S. FLUSH FRANK SANTARPIA REPORTS SPILL OF APPROX 15 GALLONS OF OIL WAS FOUND IN V3716 LOCATED AT 27 W 72 ST.

SPILL WAS FOUND BY KEN SELL(#53414) FROM THE FLUSH DEPT AT 09:00 HRS ON 12/15/98 AND REPORTED TO MCHUGH IN THE CONTROL CENTER AT 10:11 HRS ON 12/15/98. SPILL HAS ENTERED THE SUMP PIT OF THE VAULT BUT THE PUMP WAS NOT OPERATING AT TIME OF ARRIVAL. THE PUMP WAS UNPLUGGED UPON DISCOVERY. THE SPILL IS CONTAINED AT THIS TIME. SANTARPIA REPORTS THERE WAS NO RELEASE TO ANY SEWERS OR WATERWAYS. HE REQUESTS AND I&A CREW TO LOCATION TO DISMANTLE SUMP PUMP PIPING TO VERIFY THAT NO OIL WAS PUMPED. A SAMPLE WAS TAKEN AND A SPILL TAG #21894 WAS INSTALLED. THE FLUSH CREW WAS ON LOCATION TO CLEAN THE STRUCTURE. THE I&A CREW WILL ALSO PRESURE TEST TRANSFORMER TO DETERMINE IF IT IS LEAKING.

12/15/98 11:02 R.MOCKLER(OS I&A) REPORTS BOTTOM LEAK FROM TRANSFORMER IN V3716 17M83 LOCATED 27 W 72 ST. REQUESTS FDR OFF OOE CAT ONE. FDR CUT OUT AT 11:07 ON 12/15/98.

12/15/98 13:10 MOCKLER REPORTS DISMANTLED SUMP PUMP PIPING AND HAVE SIGNS OF OIL IN PIPING. IT IS ESTIMATED THAT 50 GALLON SPILLED FROM TRANSFORMER AND APPROX 40 GALLONS ENTERED THE SEWER. HAVE DEC CHRIS ENGELHARDT ON LOCATION.

12/15/98 1705 HRS RESULTS OF LAB ANALYSIS 98-13949: PCB: 9 PPM; AROCLOR 1260

12/16/98 12:15 PM S. Baldwin of NYC DEP on location. He was advised of cleanup activity. 13:30 PM Partial cleanup of structure begins treating all debris as >50 PPM. 15:00 PM Partial cleanup complete Two solid drums of waste picked up by Astoria transportation. 17:55 PM Crew drains transformer and installs oil boom in front of unit. Final cleanup pending removal of unit. Scaffold over vault.

On 6/16/99 at 18:30 I&A removed 3600 gallons of water and oil from vault with Astoria tanker.

On 6/17/99 I&A completed cleanup of structure. Removed two solid waste drums of debris, returned to E 110 St. yard for disposal. All other debris removed by Vactor truck. Degreasing agent Bio-Gen 760 used.Spill tag #21894 removed job complete.

Update: A new transformer was installed 6/25/1999.

#### Map Identification Number 136



#### MANHOLE #59227

215 W.76TH ST

MANHATTAN, NY

Spill Number: 9910860

Close Date: 02/06/2004

TT-Id: 520A-0098-740

#### MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 1299 feet to the W

#### ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
Notifier Type: Affected Persons  
Caller Name: STEVEN CRIBBIN  
DEC Investigator: JHOCONNE

Spiller: UNKNOWN – Unknown  
Notifier Name: MR HEFFERAN  
Caller Agency: CON ED  
Contact for more spill info:

Spiller Phone:  
Notifier Phone: (212) 338-4026  
Caller Phone: (212) 580-8576  
Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 12/13/1999        |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | 5.00             | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

5 gal unk oil mixed with 10 gal of mud – samples have been taken and clean up pending results – con ed #129286

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL e2mis no. 129286:

5 gallons of an unknown oil mixed with approximately 10 gallons of mud in M59227. sewer connection verified as per conduit plate.

LAB SEQUENCE # 99-12793 PCB <1 PPM

DATE AND TIME THE CLEANUP COMPLETED : 1/03/00 , 14:00. CLEANUP PROCEDURE : (NO WATER) MUD REMOVED BY VAC-TRUCK, WAS DOUBLE WASHED WITH BIO-GENESIS SOLUTION,MANHOLE WAS RINSED BY VAC-TRUCK.

**Map Identification Number 137** **CENTRLA PARK WEST&85TH ST**  
 CENTRAL PARK WEST&85TH ST

MANHATTAN, NY

**Spill Number: 9000590**

**Close Date: 04/18/1990**  
 TT-Id: 520A-0097-031

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 1309 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: CENTRAL PARK WEST/W 85TH ST  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
 Notifier Type: Police Department  
 Caller Name: OFFICER KOCH  
 DEC Investigator: WILSON

Spiller: UNKNOWN  
 Notifier Name:  
 Caller Agency: NYCPD  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (212) 374-5580  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 04/18/1990       | 04/18/1990          | UNKNOWN          | UNKNOWN                 |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN MATERIAL | OTHER               | -1.00            | UNKNOWN                 | 0.00               | UNKNOWN             | SOIL                 |

Caller Remarks:

WATERMAIN BREAK, WATER IN STREET, SHUT OFF WATER, WILL TEST WATER,  
NYCDEP & NYCFD NOTIFIED.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 138** **COMMERICAL PROPERTY** **Spill Number: 1104766** **Close Date: 07/27/2011**  
 40 WEST 86TH ST MANHATTAN, NY TT-Id: 520A-0265-916

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1318 feet to the NNE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: FDNY 759 – COMMERICAL PROPERTY Spiller Phone:  
 Notifier Type: Fire Department Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: Caller Phone:  
 DEC Investigator: HRPATEL Contact for more spill info: FDNY 759 Contact Person Phone: (346)250-6134

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 07/26/2011       |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #6 FUEL OIL      | PETROLEUM           | 15.00            | GALLONS                 | 0.00               | GALLONS             |                      |

Caller Remarks:

Believes it spilled onto cars & street, but dispatcher not really sure.

DEC Investigator Remarks:

duplicate spill. refer to spill #: 1104762.

**Map Identification Number 139** **28-30 W. 86TH ST.** **Spill Number: 9214506** **Close Date: 03/31/1993**  
 28-30 W. 86TH ST. MANHATTAN, NY TT-Id: 520A-0098-768

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1326 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                 |                                  |                              |
|---------------------------------|----------------------------------|------------------------------|
| Source of Spill: UNKNOWN        | Spiller: UNKNOWN                 | Spiller Phone:               |
| Notifier Type: Affected Persons | Notifier Name:                   | Notifier Phone:              |
| Caller Name: JERRY LITWIN       | Caller Agency: A.D.L. MGT. CORP. | Caller Phone: (212) 866-5958 |
| DEC Investigator: SULLIVAN      | Contact for more spill info:     | Contact Person Phone:        |

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/31/1993 | 03/31/1993          | UNKNOWN        | UNKNOWN                 |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | -1.00            | UNKNOWN | 0.00               | UNKNOWN | AIR                  |

Caller Remarks:

MAY BE FROM ADJACENT BUILDING. FUMES IN BASEMENT OFFICES. BUILDING ITSELF USES NATURAL GAS AS FUEL. ONGOING 1 MONTH. COULDN'T SMELL NOTHING - NO OIL IN BLDG -

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

**The following DEC Investigator Remarks were available prior to 1/1/2002:**

10/10/95: This is additional information about material spilled from the translation of the old spill file: ODOR.

**Map Identification Number 140**

**AVIS RENT A CAR**

**Spill Number: 9714319**

**Close Date: 11/03/2005**



219 W. 76TH STREET

MANHATTAN, NY

TT-Id: 520A-0095-763

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (4)  
 Approximate distance from property: 1340 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Responsible Party  
 Caller Name: CELESTE RUFER  
 DEC Investigator: TXSMITH

Spiller: UNK  
 Notifier Name: CELESTE RUFER  
 Caller Agency: AVIS RENT A CAR  
 Contact for more spill info: ROSE PELINO COLA

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (516) 222-6738  
 Contact Person Phone: (516) 222-4735

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 03/25/1998       |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| GASOLINE         | PETROLEUM           | 0                | GALLONS                 | 0                  | GALLONS             | AIR                  |

**Caller Remarks:**

don marr contracting digging to repair a sewer line in front of above address and stated an odor of gasoline was coming from the soil.

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was ROMMEL 03/29/04

Transferred from Hale to Rommel.

11/3/05 TAS Can not find additional information, no new information present, and contacts phone numbers are no longer in service. Spill closed.

**Map Identification Number 141** **121 WEST 72ND STREET**  
 121 W 72ND ST

MANHATTAN, NY

**Spill Number: 9906352**

**Close Date: 10/17/2006**  
 TT-Id: 520A-0097-823

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1341 feet to the SW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Affected Persons  
 Caller Name: NORMAN SILVER  
 DEC Investigator: rvketani

Spiller: WALTER B COOKE FUNERAL  
 Notifier Name:  
 Caller Agency: WALTER & SAMUELS  
 Contact for more spill info: CALLER

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (212) 696-7134  
 Contact Person Phone: (212) 696-7134

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/27/1999 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                   |                | Units            |         | Units              |         |                      |
| UNKNOWN PETROLEUM | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

**Caller Remarks:**

caller believe oil from funeral home tank is leaking and going into his building

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was M TIBBE

Transferred to T Knizek – 6/21/06

9/7/06 – Austin – Assigned from Albany to Region 2 staff (Ketani) for review and closure – end

10/6/06 – Raphael Ketani. The caller stated that he believed oil from a funeral home tank was going into his building. The contact is Norman Silver of Walter & Samuels (management company), (212) 696-7134.

I called up Mr. Silver and he said that, to the best of his memory, 500 gals. were released. He said that the rusted bottom of the tank dropped out. The repair/cleanup people came, the area was cleaned, the tank replaced, and all of the paperwork was submitted to DEC. He said the case was closed. He said that the paperwork is now with the successor management company, Cooper Square Realty (212) 634-8940. He said the contact person is Susan Turner. I tried calling Ms. Turner, but could only leave a

message. However, her phone system stated that Gaitri Patel was her assistant and that she could be contacted. I called Ms. Patel (212) 634-8928 and discussed the need for paperwork to close the case. She said she and Ms. Turner will try to get me what I need.

10/11/06 – Raphael Ketani. Ms. Turner called me back. She said she looked for records regarding the cleanup of the oil spill at the site among the records that Mr. Silver forwarded to her, but found nothing. She asked me what I had. I told her I didn't have a paper file. She asked why I was inquiring about this old spill at this time. I explained to her that this was a case transferred down from our Albany office for investigation and closure. I told her that Mr. Silver and her were my only leads. I asked her whether there were any odors in the basement where the spill occurred and whether there was any indication that a spill happened. She said that there are no odors and the building's basement is absolutely clean. Ms. Turner said that they clean things quickly at this building. She said she will look for the records again, but couldn't promise me anything. I told her I appreciated the efforts she was making.

10/16/06 – Raphael Ketani. I tried calling Ms. Turner, but could only leave a voice mail.

10/17/06 – Raphael Ketani. I made an unannounced site visit today. I met Mr. Fernando Gomez, the super. He showed me the boiler room and the tank room. The east wall of the boiler room had numerous stains on it. There were 2 holes about 5 feet above the floor and numerous small holes with long stains at various heights above the floor. There appeared to be a brown spongy substance in the narrow water drainage trench that runs along the base of the wall. However, there were no oil odors. The stains, Mr. Gomez said, were from when sealants were pumped through the wall in order to stop oil from seeping in from the neighboring building, 117 W. 72 Street. According to spill case #9712410, a fill line broke under the sidewalk and oil flowed through the soil and exited through the wall. The spill was contained and the case closed. However, the stains persist.

I inspected the tank and the lines and took several pictures. The tank and lines looked new. I asked Mr. Gomez when the tank had been replaced. He said the bottom of the tank dropped out on 6/14/94 and the tank was replaced on 12/8/94. (This does not match the case spill dates of 8/27/99 for the same type of incident.)

However, based upon the cleanliness of the boiler and the tank rooms, the lack of oil odors, the apparent newness of the tank and lines, and the lack of paperwork and the lack of knowledge of who cleaned up the spill, according to Ms. Turner, I am closing the spill case.

**Map Identification Number 142****MANHOLE 29419**

CENTRAL PK WEST

MANHATTAN, NY

**Spill Number: 0006070****Close Date: 12/14/2001**

TT-Id: 520A-0095-234

## MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 1356 feet to the S

## ADDRESS CHANGE INFORMATION

Revised street: W 73RD ST / CENTRAL PARK W

Revised zip code: NO CHANGE

|                            |                                          |                                      |
|----------------------------|------------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN   | Spiller: UNKNOWN                         | Spiller Phone:                       |
| Notifier Type: Other       | Notifier Name: MR RUSSO                  | Notifier Phone: (212) 580-6763       |
| Caller Name: BILL MURPHY   | Caller Agency: CON EDISON                | Caller Phone: (212) 580-6763         |
| DEC Investigator: JHOCONNE | Contact for more spill info: BILL MURPHY | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/22/2000 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                   |                | Units            |         | Units              |         |                      |
| UNKNOWN PETROLEUM | PETROLEUM      | 5.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

5 GALS OIL ON 50 GALS WATER CONTAINED. CON ED 132-983 CLEAN UP PENDING.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL E2mis notes:

Aug. 22 2000 11:54 hrs. 5 gallons of an unknown oil mixed with approximately 10 gallons of water in MMH 29419 while there todo a preinspection for upcoming contractor work.

PCB and ID samples taken.

8/23/2000: Arochlor 1254, 20 ppm.

9/1/2000: ID= lubricating oil

10/12/2000: Final cleanup

Cleanup info: double wash the structure walls and floor with slix.

Spill source: cable ends Involved equipment: primary cable Leak abatement procedure: seal all cable ends.

**Map Identification Number 143 2222 BROADWAY/FILENES BASEMENT**



2222 BROADWAY

MANHATTAN, NY

**Spill Number: 9306013**

**Close Date: 01/04/2010**

TT-Id: 520A-0091-987

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1366 feet to the WNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Spiller: LORI ZEP CORP. – OWNER

Spiller Phone: (212) 787-7739

Notifier Type: Other

Notifier Name:

Notifier Phone:

Caller Name: MIKE GALLIN

Caller Agency: JOHN GALLIN & SON

Caller Phone: (212) 267-8624

DEC Investigator: jbvought

Contact for more spill info:

Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Unknown RP – DEC Field Response – DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/09/1993 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled | Units  | Quantity Recovered | Units  | Resource(s) Affected |
|-------------------|----------------|------------------|--------|--------------------|--------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 0                | POUNDS | 0                  | POUNDS | SOIL                 |

**Caller Remarks:**

FOUND OIL IN EXCAVATION OF ELEVATOR PIT – IN BASEMENT – CHRIS TOMASELLO WAS NOTIFIED ~1310 HRS.No penalty recommended as spill from unknown source and hence no responsible party to assign violations.

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was DEMEO 5/10/04 – AUSTIN – TRANSFERRED FROM TOMASELLO TO DEMEO – END

8/23/05 – Raphael Ketani. Case transferred to Jeff Vought.

7/23/09– Complete File review by Intern E.M Ibeh and DEC JB Vought.

**Closed Spill #.**

0601671– 79th St and Broadway– Motor oil spill by NYC Transit. 6.00G spilled and 6.00G recovered. Spill cleaned up by Transit thus spill closed on 5/16/06.

0703767– 79–01 Broadway, Elmhurst–“Old oil tank was removed and soil contamination was discovered from #2 fuel oil”. Spill closed 10/2/07 due to soil analyticals in the closure report.

No PBS records were found for the property.

The file being reviewed is SP# 9306013, PIN# 93250, 2222 Broadway, NY. Spill date 8/9/93.

8/16/93– Written personal notes stating the address as 22–22 Broadway– NE corner of 79th and Broadway and building as a 2 story wood retail store. Mike Gallin of John Gallin & Sons (P. 212–267–8624) was the caller and he explained that they were digging for piston to extend elevator when they discovered pit filled with oil. Owner is listed as:

Lori Zee 22–70 Broadway 212.787.7739

Undated personal notes from C. Tomasello to M. Tibbe stating that a ‘Filene’s Basement’ was to be built there and contractors were digging a pit for piston of elevator when they hit product. C.Tomasello wrote that he spoke to the rep from Filenes the previous day who said he wanted to get a contractor to pump pit and oil out and into drums. Tomasello agreed but said not to move product until a sample was taken and asked for the place and area to be checked for sources.

8/20/93– Letter from Pedneault Associates, Inc to Fenley and Nicol Co, Inc regarding Filenes–222 Broadway–79th St. subway, Manhattan, NY: Stating that a sample was taken on 8/19 from the above location and was analyzed for fingerprint identification which showed this sample to contain fuel oil.

8/25/93– Letter from NYSDEC to Mr. Luft of Lori Zee Corp, 22–70 Broadway, NY 10023 regarding 2222 Broadway, Manhattan: Stating that the NYSDEC is investigating and/or remediating a petroleum spill which occurred on or near the above–mentioned premises and that the Department will expend State funds to perform this project whilst attempting to determine a responsible party. It also states specific work to be performed on the site viz a) temporary system to de–water the area of the elevator pit, allowing instillation work to be completed, b) groundwater investigation, including well installations, c) permanent recovery system to be installed later at the site. A copy of section 178 Right to Enter and Inspect was attached to the letter.

8/30/93– Letter from Lori–Zee Corp to Mr. Brian Bootay, Filene’s Basement Corp, 40 Walnut St, Wellesley, MA 02181: Confirming the presence of liquid discovered in basement during excavation of cellar pit and stated that as a matter of precaution, he had sent sample of liquid to laboratory for testing and advised Mr. Bootay to do same. He requested entry permission and enclosed Right to enter letter from DEC dated 8/25.

10/29/93– Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as weekly for 2 months. 0.00G of product bailed and total recovered but well #1 contained a film of floating product (FP).

11/24/93– Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as weekly for 2 months. 0.00G of product bailed and total recovered but well #1 contained a film of FP.

12/29/93: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as weekly for 2 months. 0.00G of product bailed and total recovered but well #1 contained a film of FP.

12/30/93: Personal notes from C.Tomasello: Stating that K. Blumberg of F&N was installing sump pit and separator at the site

^next week^.

1/28/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as weekly for 2 months. 0.00G of product bailed and total recovered. No FP detected.

2/4/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as weekly for 2 months. Its comments list wells as `OK`.

3/29/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as weekly for 2 months. Its comments list wells as `OK`.

4/22/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as weekly for 2 months. 0.00G of product bailed and total recovered.

5/6/94: Report from F&N to M.Tibbe of DEC stating that F&N reviewed file for possible closure as requested because no FP had ever been recovered. Summarized was the spill case from inception and stated was 523gallons of liquid (478gal.water and 45gal. oil) that F&N removed from the excavated area, when oil spill was reported, via vacuum truck. It also stated that F&N returned to the site in 9/93 and removed ~1400gallons of all liquids consisting of water and oil, using a vacuum truck and following this work, the DEC proceeded with installation of a minor recovery system consisting of a sump pump and oil/water separator. Attached were monitoring reports and a Site Schematic of the System.

5/13/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as monthly, 0.00G of product bailed during visit and wells listed as `OK`.

6/10/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring sch-edule as monthly. 0.00G of product bailed and total recovered and no FP detected.

7/20/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as monthly. 0.00G of product bailed and total recovered and no FP detected.

8/12/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as monthly. 0.00G of product bailed and total recovered and no FP detected.

9/23/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as monthly. 0.00G of product bailed and total recovered and no FP detected.

10/13/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as monthly. 0.00G of product bailed and total recovered and no FP detected.

11/21/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring /chedule as monthly. 0.00G of product bailed and total recovered and no FP/detected.

12/8/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as monthly. 0.00G of product bailed and total recovered and no FP detected.

2/2/95: ISR stating clean-up of Filene's Basement as completed on 1/27/95.

7/29/09- As per Tibbe, the driller was nervous to drill in the basement as the foundation was unstable and no free product was discovered.

7/30/09- As per Bechard of the NYSOAG, there was no information regarding SP# nor case settlement by the OAG.

8/13/09- Vought called Filene's Basement and spoke to Mike Brown(212-873-8000), the manager, who said to sent letter requesting visit to property to inspect elevator shaft and basement.

08/18/09-Vought-Spoke to DEC Farrar and as Att. Gen. Close Date box is filled out in UIS, no Final ISR needed.

09/14/09-Vought-Called Brown to inform him that letter was drafted and being sent in mail and also via fax machine.

09/16/09-Vought-Performed site visit and met Brown onsite. Vought inspected elevator pit and no signs of seepage via visual and olfactory evidence. Vought also inspected rear stockrooms of site and noticed no seepage, no staining, no odors. Site is currently using natural gas. No recovery system onsite. Vought to discuss spill closure with DEC Austin.

1/4/09-Vought-Discussed spill closure with DEC Austin and spill closed due to no signs of petroleum seepage during site visit and lack of free product as per notes above dated 5/13/94-12/8/94. Due to store, basement was significantly developed from prior use during spill.

**Map Identification Number 144** **1 W 72ND ST/DAKOTA**  
 1 W 72ND ST/DAKOTA

NEW YORK, NY

**Spill Number: 9112772**

**Close Date: 03/18/1992**  
 TT-Id: 520A-0095-281

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1368 feet to the S

**ADDRESS CHANGE INFORMATION**

Revised street: 1 W 72ND ST  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Citizen  
 Caller Name:  
 DEC Investigator: O'DOWD

Spiller:  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 03/13/1992 | 03/18/1992          | UNKNOWN        | UNKNOWN                 | NO                  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 1000             | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

FUEL IN BASEMENT.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 145**

**MAN HOLE #27479**

**Spill Number: 1500952**

**Close Date: 05/14/2015**



WEST 78 STREET AND BROADWAY

NEW YORK, NY

TT-Id: 520A-0309-046

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 1473 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: W 78TH ST / BROADWAY

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN

Notifier Type: Other

Caller Name:

DEC Investigator: RWAUSTIN

Spiller: ERT - CON ED

Notifier Name:

Caller Agency:

Contact for more spill info: ERT

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 04/28/2015 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 10.00            | GALLONS | 0.00               | GALLONS |                      |

Caller Remarks:

spill to man hole, no resurces affected

DEC Investigator Remarks:

4/28/15: Mahat Spill case has been crossed referenced to EMIS 240372. ConEd has collected the sample for laboratory analysis. Spill case has been assigned to Con Ed Unassigned.

5/14/15 – Austin – 10 gals unk. oil atop 10 gals water in vault – Con Ed contained and cleaned up the spill; no source for oil found in manhole – See document files for further information – Spill closed – end

**Map Identification Number 146**

**WEST 74TH ST/BROADWAY**  
WEST 74TH ST/BROADWAY



MANHATTAN, NY

**Spill Number: 9509545**

**Close Date: 07/31/1997**  
TT-Id: 520A-0090-143

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 1493 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL VEHICLE  
Notifier Type: Local Agency  
Caller Name: MRS SMITH  
DEC Investigator: KSTANG

Spiller:  
Notifier Name: MR MORESTADT  
Caller Agency: EPA #126  
Contact for more spill info: MR MORESTADT

Spiller Phone:  
Notifier Phone: (212) 570-4300  
Caller Phone: (718) 595-6777  
Contact Person Phone: (212) 570-4300

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 11/02/1995 |                     | UNKNOWN        | NO                      | NO                  |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

Caller Remarks:

unknown circumstances caused 200 gal oil truck to spill oil into roadway spill contained to prevent going into sewer or off roadway unknown whatr other cleanup procecedure is in process

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TANG AFTER CONSIDERING THE FACT THAT THE SPILL OCCURRED SO LONG AGO, AND THE REMARKS INDICATE NO LONG-TERM FOLLOW-UP NEEDED. I HAVE CLOSED THIS SPILL.

**Map Identification Number 147**

**86 STREET TRANSVERSE DPR –DDC**

**Spill Number: 9600735**

**Close Date: 02/18/2011**

 86TH STREET & TRANSVERSE ROAD

MANHATTAN, NY

TT-Id: 520A-0098-767

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 1560 feet to the NE

**ADDRESS CHANGE INFORMATION**

Revised street: W 86TH ST / TRANSVERSE RD  
 Revised zip code: 10024

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
 Notifier Type: Other  
 Caller Name: BILL FENNELL  
 DEC Investigator: ADZHITOM

Spiller: JERRY QUINN – NYC DEPT OF PARKS  
 Notifier Name: ENSA ENVIRONMENTAL  
 Caller Agency: PRIVATE CONTRACTOR  
 Contact for more spill info: JERRY QUINN

Spiller Phone: (212) 754-6542  
 Notifier Phone: (914) 268-6660  
 Caller Phone: (718) 937-3286  
 Contact Person Phone: (212) 754-6542

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 04/15/1996 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

**Caller Remarks:**

during construction found contaminated soil – bldg is inside central park

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was KOLLEENY

05/23/05: This spill transferred from J. Kolleeny to A. Zhitomirsky, who is now DEC case manager for the site. – JK

Pump and treat system is treating site contaminants since July 2004. AZ

9/20/2006 Reviewed system monitoring report submitted by URS and dated 8/23/2006. Pump and treat system is collecting contaminants. URS recommended continuation of the system operation because of exceedances in contaminant concentrations measured during last monitoring event. AZ

8-17-2007 An e-mail was sent to URS: I have reviewed request for revised remedial strategy submitted by URS and dated 5/30/2007. In April 2007 groundwater samples were collected. EW-02 was flooded, EW-03 and MW-08 were under a dumpster, EW-04 appears to have been paved over. URS stated that the plume is essentially contained within the property boundary. Existing VOC

concentrations are not effectively treated by chemical oxidation injections or oxygen source injections. URS recommended monitored natural attenuation for this site. DEC concurred with URS's proposals. However, wells which have not been sampled should be sampled and repaired if needed. AZ

3-5-2009 An e-mail was sent to J. Staten/DDC/V. Brevdo: The above spill is associated with this site. The spill report indicated that soil contaminated with #2 fuel was encountered. This spill should be investigated. This spill number should be indicated on all submittals related to this spill/site. AZ

3-6-09 The PBS # for the NYCDPR 86th Street Transverse site is 2-600308. According to PBS the site has active 7,500 gal heating oil tank. Info received from Jane Staten: According to the Investigation Summary and Remedial Plan (ISRP) prepared by Raritan Enviro Services, Inc. (RES) in 1996: During the upgrade of USTs 1 and 2, petroleum soil contamination was found near the heating oil tank (UST 3). This was reported to the NYSDEC on April 16, 1996 and assigned spill # 9600735. AZ

3-9-2009 An e-mail was sent to J. Staten: I have reviewed the submitted materials. They confirm that during the upgrade of USTs 1 and 2, petroleum soil contamination was found near the heating oil tank (UST 3). This was reported to the NYSDEC on April 16, 1996 and assigned spill # 9600735. Since that time no contaminated soil was removed or treated from the heating oil tank area. Moreover, persistent groundwater contamination might be explained by still present source (soil contamination). At this point, URS should sample soil and address soil contamination in the heating oil tank area. AZ

7-15-09 An e-mail was sent to Jane Staten and DDC: I reviewed this case. In order to close this spill (or address it) we'll need to advance soil borings. As per our standard procedure, URS should propose soil boring locations and DEC will review them. AZ

3-2-2010 Reviewed and approved Soil Investigation WP. an e-mail was sent to J. Staten: I have reviewed Soil Investigation Work Plan for this site. The plan is approved. If groundwater is encountered, groundwater monitoring wells should be installed, developed and sampled. AZ

2-18-2011 Reviewed Groundwater monitoring report for the second quarter 2010 and soil sampling results dated Aug.30, 2010 and submitted to DEC at the meeting on 2-17-2011. According to the report the spill#9600735 was assigned on April 16, 1996, due to the presence of petroleum contamination found near the 7,500\_gallon heating oil tank during the upgrade of the two gasoline USTs. The heating oil UST passed tightness testing in February 2000 and again in February 2005. URS requested closure of the spill #9600735. In response DEC requested an additional soil sampling to confirm absence of soil contamination. The sampling was performed in June 2010. There were no exceedances of TAGM guidelines. Based on the above information spill#9600735 is closed. The remaining groundwater contamination will be tracked under spill#9502313. AZ

The following e-mail was sent to K. Shenahan(URS), M. Asbagh (DDC) and V. Brevdo: Dear Kevin,

I have reviewed Groundwater monitoring report for the above site for the second quarter 2010 and soil sampling results dated Aug.30, 2010 and submitted to DEC at the meeting on 2-17-2011. According to the report the spill#9600735 was assigned on April 16, 1996, due to the presence of petroleum contamination found near the 7,500 gallon heating oil tank during the upgrade of the two gasoline USTs.

The heating oil UST passed tightness testing in February 2000 and again in February 2005. URS requested closure of the spill #9600735. In response DEC requested an additional soil sampling to confirm absence of soil contamination. The sampling was performed in June 2010. There were no exceedances of TAGM guidelines. Based on the above information spill#9600735 is closed. The

remaining groundwater contamination will be tracked under spill #9502313. The Department hereby reserves all of its rights concerning, and such forbearance shall not extend to, any further investigation or remedial action the Department deems necessary due to: 1. The off-site migration of petroleum contaminants that was unknown at the time of this closure; 2. Environmental conditions related to this spill case which were unknown to the Department at the time of this closure; 3. Information received, in whole or in part, after the Department's spill case closure, which indicates that the corrective action was not sufficiently protective of human health for the reasonably anticipated use(s) of the site; or 4. Fraud committed in obtaining this spill closure determination. Sincerely, AZ

**Map Identification Number 148**      **SERVICE BOX 13680**      **Spill Number: 0903063**      **Close Date: 07/23/2009**  
 241 WEST 76 ST      MANHATTAN, NY      TT-Id: 520A-0229-475

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1562 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: 241 W 76TH ST  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN      Spiller: ERT – UNKNOWN      Spiller Phone:  
 Notifier Type: Local Agency      Notifier Name:  
 Caller Name:      Caller Agency:      Notifier Phone:  
 DEC Investigator: RWAUSTIN      Contact for more spill info: ERT      Caller Phone:  
 Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 06/15/2009       |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #6 FUEL OIL      | PETROLEUM           | 50.00            | GALLONS                 | 0.00               | GALLONS             |                      |

**Caller Remarks:**

Clean up is pending company resources. NRC # 908658

**DEC Investigator Remarks:**

DECPiper received call off hours. 50 gal of #6 oil ound in service box. AS con Ed does not use #6 oil in service boxes, it is believed to be coming from a local source. The service box is in front of 235-41 W. 76th St. PBS # 2-047295 Piper received e-mail from David Grossman, property mgr on PBS form.

NY Heating will inspect the fill line. I believe that the oil observed in the Con Edison vault is related to an oil spill January 29, 2009. The oil spilled onto the public sidewalk. Approved Oil, our oil delivery company, hired Petroleum Tank Cleaners, a registered contractor to clean the oil spill. The spill was assigned # 0811804.

7/23/09 – Austin – Spill in vault cleaned up by Con Ed – see EMIS in eDocs – closed this spill, referred to #0811804, a 3rd party spill. – end

**Map Identification Number 149**      **APARTMENTS**      **Spill Number: 0811809**      **Close Date: 01/29/2009**  
 235 WEST 76TH ST      MANHATTAN, NY      TT-Id: 520A-0226-357

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1562 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                        |                                           |                                      |
|----------------------------------------|-------------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: BETSY PETERS – APARTMENTS        | Spiller Phone:                       |
| Notifier Type: Local Agency            | Notifier Name:                            | Notifier Phone:                      |
| Caller Name:                           | Caller Agency:                            | Caller Phone:                        |
| DEC Investigator: smsanges             | Contact for more spill info: BETSY PETERS | Contact Person Phone: (212) 787-6262 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 01/29/2009 |                     | UNKNOWN        | NO                      |                     |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 20.00            | GALLONS | 0.00               | GALLONS | SOIL, SEWER          |

**Caller Remarks:**

Caller states during a fill oil was spilled to the sidewalk. Cleanup crew is enroute.

**DEC Investigator Remarks:**

Duplicate spill – Ref to # 0811804 PTC is doing the cleanup 718-624-7490

**Map Identification Number 150** **CONDO 235 W 75TH ST**  
 235 W.75TH ST

NEW YORK, NY

**Spill Number: 9108106**

**Close Date: 12/27/2002**  
 TT-Id: 520A-0097-828

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1573 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: SJMILLER

Spiller:  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone:

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/30/1991 |                     | UNKNOWN        | YES                     | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | -1.00            | GALLONS | 0.00               | GALLONS | AIR                  |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was MILLER 11/1/91 @0920hrs, MILLER RESPONDED TO SPILL: SPILLAGE IS RELATED TO ONGOING STATE-FUNDED CLEANUP AT 241 WEST 75TH STREET - SPILL REPORT NO. 9108242.

SEE SPILL REPORT NO. 9108242.

**Map Identification Number 151** **235 W. 75TH ST**  
 235 WEST 75TH ST

MANHATTAN, NY

**Spill Number: 0308109**

**Close Date: 03/21/2006**  
 TT-Id: 520A-0097-829

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1573 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                            |                                      |
|-----------------------------------|--------------------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: UNKNOWN                           | Spiller Phone:                       |
| Notifier Type: Other              | Notifier Name: MARTHA GOUPIT               | Notifier Phone: (212) 207-1809       |
| Caller Name: MARTHA GOUPIT        | Caller Agency: CARAN PROPERTYS             | Caller Phone: (212) 207-1809         |
| DEC Investigator: KSTANG          | Contact for more spill info: MARTHA GOUPIT | Contact Person Phone: (212) 207-1809 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/30/2003 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled                                                          | Material Class                                              | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|---------------------------------------------------------------------------|-------------------------------------------------------------|------------------|---------|--------------------|---------|----------------------|
|                                                                           |                                                             | Units            |         | Units              |         |                      |
| #2 FUEL OIL                                                               | PETROLEUM                                                   | 0                | GALLONS | 0                  | GALLONS | SOIL                 |
| The following material(s) was dropped or revised by the UNKNOWN PETROLEUM | NYS DEC. Call Toxics Targeting for more information UNKNOWN | 0                | GALLONS | 0                  | GALLONS |                      |

Caller Remarks:

CALLER STATES HER COMPANY WAS DIGGING FOOTINGS YESTERDAY AND CONTAMINATION WAS FOUND IN THE DIRT – THERE IS A HISTORY OF A SPILL NEXT TO THE SITE BACK IN 1995-96 / NO REMEDIATION HAS BEEN STARTED AT THIS TIME, THEY ARE REQUESTING A CALLBACK FROM DEC

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SAWYER 10/31/03 TJD

Site was formerly a PIN job (spill #9108119 PIN#91283). Caller reports unknown petroleum seeping into excavation from saturated soils. Material suspected to be emanating from 241 West 75th St. Sawyer performed site visit.

Contact information: Martha Goupit: Management agent Caran Properties 150 E 58th Street 27th Floor NY, NY 10155 Cell:(917)974-8151

Building Super: Ricky Koakaj Pager: (917)738-8228 Phone: (212)595-4620

Front desk @235 W75th St. 212 787 3407

10/31/03 1430 Hrs – Sawyer – Performed sight visit but was not able to confirm that the source was next door again. Steve Kirchner of Kay Equities (917)912-0099 241 W 75th was persistent that his tank was not the cause this time. Two passing tank system test later, he may be right.

11/4/03 1030 Hrs – Sawyer – I let Ricky and their insurance agent that we could not pinpoint the origin. 12/16/05- DEC Piper

left message w/ Martha Goupit, requesting callback. 3/8/06– DEC Piper left message w/ Martha Goupit, requesting callback. 3/9/06– DEC Piper received e-mail and summary report/letter. AS per report, during Oct. 2003 footing work, free floating product discovered on groundwater. Test show oil is a match for adjacent property. Sp#9108119. Spill referred to remediation. Re-assigned to K. Tang.

3/21/06 – Spoke to Bryan DeVaux of P.W Grosser. He observed the floating product in a 2’x2’ excavation, and it was only about 1/4 thick. The oil looks very weathered. The area is now backfilled. Spoke to PM of the PIN cleanup (spill # 9108119) at this site and the source next store. He said that there is going to be a layer of contaminated soil trapped underground and whenever it is disturbed, it will release some oil to the water table. The PIN job has recovered as much oil as possible before closure in 1998. Since this residual contamination is not causing any odor complaint, and it does not appear to have any significant impact to the environment or the public health, NFA can be issued and spill closed. – KSR

**Map Identification Number 152**

**SPILL NUMBER 0301510**

**Spill Number: 0301510**

**Close Date: 05/12/2003**



2159 BROADWAY

MANHATTAN, NY

TT-Id: 520A-0101-370

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1573 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Citizen  
 Caller Name: MARGARITA LUNA  
 DEC Investigator: JXZHAO

Spiller: UNKNOWN  
 Notifier Name: SAME  
 Caller Agency: THE BODY SHOP  
 Contact for more spill info: MARGARTIA LUNA

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (212) 721-2947  
 Contact Person Phone: (212) 721-2947

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 05/12/2003 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

**Caller Remarks:**

Caller states that there is an unknown oil spilled on street in front of her business. Caller is requesting to speak to DEC regional office in reference to problem.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was ZHAO 5/12/2003 – Green color oil on sidewalk and street, no drains involved, referred to NYC Dept. of Sanitation.

**Map Identification Number 153** **APARTMENT COMPLEX** **Spill Number: 0210091** **Close Date: 03/21/2003**  
 250 W 77TH ST MANHATTAN, NY TT-Id: 520A-0095-758

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1577 feet to the W

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                            |                                      |
|-----------------------------------|--------------------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: KENNETH ROSEN – SUMMIT TRANSPORT  | Spiller Phone: (973) 777-0404        |
| Notifier Type: Responsible Party  | Notifier Name: DRIVER                      | Notifier Phone:                      |
| Caller Name: KENNETH ROSEN        | Caller Agency: SUMMIT TRANSPORT            | Caller Phone: (973) 777-0404         |
| DEC Investigator: TJDEMEO         | Contact for more spill info: KENNETH ROSEN | Contact Person Phone: (973) 777-0404 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/06/2003 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 30.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

MATERIAL SPILLED FROM A VENT PIPE ON TO THE SIDEWALK. CREW ENROUTE FOR CLEANUP.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was DEMEO ARAKHAN 1/7/03 DELIVERY MADE TO WRONG BLDG. SPILL ONTO CONCRETE; NO SEWER AFFECTED. CLEANUP IN PROGRESS UNDER DEMEO'S SUPERVISION.

1/21/03 TJD Site reinspected. Impacts to sidewalk remediated. Tank vault opened and petroleum impacts cleaned. Awaiting copies of disposal manifests for contaminated debris removal.

3/21/03MT manifest arrived, nfa necessary

**Map Identification Number 154** **CO-OPERATIVE** **Spill Number: 9910368** **Close Date: 03/04/2003**  
 212 W.85TH ST MANHATTAN, NY TT-Id: 520A-0092-675

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1609 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                                  |                                              |                                      |
|--------------------------------------------------|----------------------------------------------|--------------------------------------|
| Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER | Spiller: CO-OPERATIVE                        | Spiller Phone:                       |
| Notifier Type: Citizen                           | Notifier Name: KRISTIN SUMMERS               | Notifier Phone: (212) 721-7731       |
| Caller Name: KRISTIN SUMMERS                     | Caller Agency: CITIZEN                       | Caller Phone: (212) 721-7731         |
| DEC Investigator: TOMASELLO                      | Contact for more spill info: KRISTIN SUMMERS | Contact Person Phone: (212) 721-7731 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 11/29/1999 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | AIR                  |

**Caller Remarks:**

ODOR OF OIL COMING FROM BASEMENT. REQ CONTACT FROM DEC.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

**The following DEC Investigator Remarks were available prior to 1/1/2002:**

12/1/99 Sangesland made an inspection of the site. Tank in basement room looks old with oil staining visible. Fans are used to vent out the oil smell in the basement.  
 A 30 day notice was sent to the manager  
 Pride Property Management Corp  
 11 New St  
 Engelwood Cliffs, NJ 07632  
 Attn: Alex Kuffel - Manager

Fax 201-567-1960  
Phone 212-690-0800

30 Day notice said:

- 1) Do a tank test (1/11/200 call said tank past test after minor repairs)
- 2) Clean the tank room & epoxy paint the room
- 3) Updated PBS form should be posted

1/11/2000 Sangesland received letter from Pride Management including:

- 1) Letter from Aggressive Heating Inc (12/21/99) saying tank tightness testing report shows tank is OK.
- 2) Copy of Horner EZ test done by Bernard Bauer of New York City Tank Testing Inc. (Cert #642329) 1624 Webster Ave Bronx. Test done on 12/14/1999.
- 3) Aggressive Heating replaced manhole gasket, replaced oil return line. Tank is Not on saddles

Tank capacity 5000 gal

2/22/2000 call from Kristen Summers saying smell in her apartment is still there. Tank room has not been cleaned and walls have not been epoxy painted. Sangesland called Pride Management and left a message with Mr. Kuffel to follow up on cleaning & painting and return call.

3/19/2001 – Kristen Summers called again saying the smell is coming back up into her apartment. New contact person at Pride Management is Ben Celaj. Sangesland left a message for Ben Celaj to call Sangesland to discuss the problem.

**Map Identification Number 155**



**SPILL NUMBER 9714534**

152 WEST 72ND ST – APT 5B

MANHATTAN, NY

**Spill Number: 9714534**

**Close Date: 04/07/1998**

TT-Id: 520A-0095-284

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 1611 feet to the SW

**ADDRESS CHANGE INFORMATION**

Revised street: 152 WEST 72ND ST  
Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
Notifier Type: Federal Government  
Caller Name: GAD TAWADROS  
DEC Investigator: CAENGELH

Spiller: UNKNOWN  
Notifier Name: MARY RING  
Caller Agency: EPA  
Contact for more spill info: MAARY RING

Spiller Phone:  
Notifier Phone: (212) 799-9036  
Caller Phone: (732) 321-6648  
Contact Person Phone: (212) 799-9036

Category: Investigation indicates there was no spill.  
Class: Any Type of RP Including No RP – No DEC Field Response – Corrective Action by Spill Response Not Required

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 03/30/1998       |                     | OTHER            | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| PESTICIDES       | OTHER               | 0                | GALLONS                 | 0                  | GALLONS             | AIR                  |

Caller Remarks:

mary ring's apartment was sprayed for bugs a month ago and she can still smell it and taste it – would like someone to check the air. if dec cannot help please notifier caller of who to call.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was ENGELHARDT Engelhardt was on duty but was not contacted by Colonie. Received report in office the next day.

4/7/98 – called Mary ring. Says tenants in adjacent apt and apt below are putting harmful vapors into ventilation system. Referred her to the NYC Health Department and to the NYC Department of Housing Preservation and Development.

Map Identification Number 156

148 WEST 72ND ST  
148 WEST 72ND ST



MANHATTAN, NY

Spill Number: 0807618

Close Date: 11/25/2008  
TT-Id: 520A-0220-591

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 1611 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
Notifier Type: Other  
Caller Name:  
DEC Investigator: hrpatel

Spiller: NONE – UNKNOWN  
Notifier Name:  
Caller Agency:  
Contact for more spill info: NONE

Spiller Phone:  
Notifier Phone:  
Caller Phone:  
Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date        | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |         | Penalty Recommended |         |                      |
|-------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 10/07/2008        |                     | UNKNOWN        | NO                      |         | NO                  |         |                      |
| Material Spilled  |                     | Material Class | Quantity Spilled        | Units   | Quantity Recovered  | Units   | Resource(s) Affected |
| UNKNOWN PETROLEUM |                     | PETROLEUM      | 100.00                  | GALLONS | 0.00                | GALLONS | SOIL, SEWER          |

Caller Remarks:

An unknown caller reported to DEP above spill. Nothing further other than it is supposed to be in the street and oil is going into the catch basin.

DEC Investigator Remarks:

10/07/08–Hiralkumar Patel. visited site. found oil on sidewalk. met cleanup crew from Enterprise Transportation, who delivered oil at the building. crew was cleaning up oil on sidewalk. oil spilled from a vent pipe, as a result of overfill, on sidewalk and some oil entered into trap door on sidewalk. so oil was also found on steps to basement. found drain at the bottom of steps. found minor oil in the drain. found oil in tree area in front of 148 W 72nd street building. found petroleum odors inside Domino Pizza place at the building.

spoke with Peter, building super. site has one 5000 gal #4 oil AST, sitting on broken floor. as per Peter, Enterprise delivered oil at about 7 AM and as driver noticed spill, oil company sent crew for cleanup. he noticed oil spill lateron. 5000 gal tank delivers oil to buildings from 140 to 148 W 72nd Street.

inspected tank room. no sign of overfill from tank. all lines runs aboveground except part of fill and vent lines that runs under sidewalk. vent line is located along building foundation wall. fill and vent line enters into basement via an old coal chute. found oil spill in this coal chute and then ran along tank room wall for about 15 ft to tank room floor. tank room floor is in bad shape. found contaminated soil in area below entrance of fill/vent line. found leak at elbow in fill line, which is outside of coal chute area. found abandoned 275 gal AST in tank room corner.

spoke with Carmine at Enterprise. they delivered oil for Hess. Enterprise took responsibility and has called his insurance company AIG. as per Carmine, AIG hired Envirotrac for cleanup. spoke with Ted at Envirotrac. asked him to cleanup spill from sidewalk, tree area in front of the building, steps to basement and also inside tank room. after this, asked him to test entire tank system before any further work.

met Eric from Hess.

as per super, tank had about 2400 gal oil in it and he ordered 2000 gal oil. as per delivery ticket, driver delivered 1742 gal when oil came out from vent. gauge might not be working properly.

received call from Rene Lewis. he has been hired by property manager as fill line might be leaking. Rene mentioned that he met

Andrew Kelly from DEP who came to inspect drain at the end of basement steps. as per Rene, Andrew found no oil in drain and no violation has issued.

alternate addresses:

140 W 72 St 154 REAR W 72 St 154 W 72 St, 152 REAR W 72 St 152 W 72 St 150 W 72 St 146 W 72 St 144 REAR W 72 St 144 W 72 St 142 REAR W 72 St 142 W 72 St

PBS #: 2-187852

Peter Borocan

\*\*building super\*\* Ph. (212) 873-3038 (H)

(914) 304-7871 (C)

140-154 W. 72 Realty LLC.

\*\*building owner\*\* c/o S.W. Management LLC.

\*\*management office\*\* 502 E 79th Street, Suite B1 New York, NY 10075 Attn.: Jack Atkin

\*\*building manager\*\* PH. (212) 535-8082 Fax (212) 396-2951 email: jakerachele@yahoo.com

Enterprise Transportation

\*\*delivery company\*\* 142 2nd Street Brooklyn, NY 11231 Attn.: Carmine Salcone Ph. (718) 596-4477 Fax (718) 596-0683

10/08/08-Hiralkumar Patel. spoke with Mr. ATkin. he mentioned that contractor is cleaning inside tank room and will do tank test today. asked Mr. Atkin to provide tank test result by end of today.

11/06/08-Hiralkumar Patel. left message for Mr. Atkin to submit documents by end of tomorrow (11/07/08).

spoke with Rene. he mentioned that he removed about 2 ft deep soil from tank room area and during tank test found vent line leaking. he replaced vent line and tested tank again. tank passed second test after vent pipe replacement. Rene mentioned that property manager's environmental contractor will collect endpoint samples.

Kenneth Friedman Shaindel environmental inc. Ph. (914) 762-2296 Fax (914) 727-1139 email: secikf@optonline.ne

11/14/08-Hiralkumar Patel. received email from Mr. Friedman from Shaindel environmental with spill closure report. abstract:

- exterior spill from vent pipe was cleaned out by Envirotrac - AST passed tank test - one endpoint soil sample was collected at 6-12 inches below excavation bottom inside tank room

but report missing following:

– scaled site map including locations of entire tank system, spill areas, excavation and endpoint sample – final dimensions of excavation

sent email to Mr. Atkins requiring submission of above missing information alongwith color photographs of spill areas after cleanup.

11/17/08–Hiralkumar Patel. received email from Ken with photographs and unscaled site map. according to site map, they excavated 5 ft by 6 ft area in tank room, near foundation wall where fill line/vent line cross the foundation wall.

11/24/08–Hiralkumar Patel. visited site to confirm cleanup. inspected tank room. contaminated soil removed, but some stained soil in place. no odors inside tank room. observed soil stain on foundation wall under vent pipe location. no more oil coming out from vent pipe area. spoke with super. they replaced vent pipe. old vent pipe was crossing sidewalk concrete and thats only part was invisible.

observed active fill port/vent pipe for 275 gal AST inside tank room. asked super to seal fill port for 275 gal tank.

based on submitted report and observation during site visit, case closed.

**Map Identification Number 157**

**SPILL NUMBER 0006084**

**Spill Number: 0006084**

**Close Date: 08/22/2000**



64 W 87TH ST

MANHATTAN, NY

TT-Id: 520A-0091-138

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1613 feet to the NNE

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Federal Government  
 Caller Name: CPO LAURA WARE  
 DEC Investigator: SACCACIO

Spiller:  
 Notifier Name: NRC  
 Caller Agency: USCG  
 Contact for more spill info: CPO LAURA WARE

Spiller Phone:  
 Notifier Phone: (800) 424-8802  
 Caller Phone: (718) 354-4136  
 Contact Person Phone: (718) 354-4136

Category: Investigation indicates there was no spill.  
 Class: Any Type of RP, Including No RP – DEC Field Response – Corrective Action Not Required or Not Possible

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 08/22/2000 |                     | OTHER          | NO                      | NO                  |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

Caller Remarks:

caller states the restaurant across the street is illegally venting fumes from the kitchen

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 DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

**The following DEC Investigator Remarks were available prior to 1/1/2002:**

Spoke to USCG who provided the number of the original complainer – Jon Ortner lives down the street from a new deli who is venting their bacon odors to the street through a vent 6’ above the sidewalk. I referred Mr. Ortner to DEP and informed the air unit (via email) of the situation. Closed.

**Map Identification Number 158**

**MANHOLE #27450**

**Spill Number: 0002592**

**Close Date: 04/02/2004**



73RD ST/BROADWAY

MANHATTAN, NY

TT-Id: 520A-0101-960

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 1623 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: W 73RD ST / BROADWAY  
 Revised zip code: 10023

Source of Spill: UNKNOWN  
 Notifier Type: Affected Persons  
 Caller Name: JAMES FOX  
 DEC Investigator: JHOCONNE

Spiller: UNKNOWN  
 Notifier Name: BOSCE  
 Caller Agency: CON ED  
 Contact for more spill info: JAMES FOX

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (212) 580-6763  
 Contact Person Phone: (212) 580-8383

-----  
 Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 06/01/2000        |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | 2.00             | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

SAMPLE TAKEN, CLEAN UP PENDING CON ED#131657

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL e2mis no. 131657:

aprox 2-gallons unknown oil mixed with 150-gallons water in mh-27450... NO sewer connection as per Conduit Plate 36-D-3...  
Cleanup pending test results...

lab sequence # 00-05328 PCB <1 ppm

DATE AND TIME THE CLEAUP WAS COMPLETED: 06/02/00, 18:00. CLEANUP PROCEDURE: OIL AND WATER REMOVED VIA TANKER UNDER 50 PPM, FLUSH TRUCK FROM ENVIRONMENT OPERATIONS USED A HIGH PRESSURE HOSE TO DOUBLE WASHED THE FLOOR AND WALL'S WITH BIO-GENESIS SOLUTION (SLIX), MANHOLE WAS THEN RINSED BY FLUSH TRUCK.

**Map Identification Number 159**

**APARTMENT**

**Spill Number: 0514747**

**Close Date: 05/15/2006**



241 WEST 75TH ST

MANHATTAN, NY

TT-Id: 520A-0098-741

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 1647 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
Notifier Type: Local Agency  
Caller Name: DENNIS HUACON  
DEC Investigator: rmpiper

Spiller: MR KUKAJ - APARTMENT  
Notifier Name: DENNIS HUACON  
Caller Agency: NYCDEP  
Contact for more spill info: MR KUKAJ

Spiller Phone: (212) 595-4820  
Notifier Phone: (347) 865-1238  
Caller Phone: (347) 865-1238  
Contact Person Phone: (212) 595-4820

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.  
Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/24/2006 |                     | OTHER          | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

**Caller Remarks:**

THE OIL LINE RUNNING ALONG THE BUILDING IS DAMP WITH OIL;

**DEC Investigator Remarks:**

listed owner 241–243 West 75TH Street Tenants Corp. 241–243 West 75TH Street New York NY 10023

spoke w/ Brian, manager. as per conversation Eastmond to pump tanks and set up temp. Isolation test will be done on Monday. 1600hrs. Rene Lewis for mEastmond on site. AS per Rene, the leak seems to be coming from and above grade return line. Return line is on ledge above ground. Eastmond will install temp. line a test tank, system over weekend.

4/18/06– DEC Piper spoke w/ Steve of bldg. Instructed Steve to contact Eastmond and have them provide documentation of repairs.

5/15/06– DEC Piper received documentation of cleanup and minor repairs to tank system. Closed. See E–Docs if warranted.

**Map Identification Number 160** **15 GAL ANTIFREEZE IN MANHOLE #12879** **Spill Number: 0701081** **Close Date: 06/28/2007**  
 17 WEST 71 STREET MANHATTAN, NY TT–Id: 520A–0090–296

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1668 feet to the SSW

**ADDRESS CHANGE INFORMATION**

Revised street: 17 W 71ST ST  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER Spiller: ERTSDESK – CON EDISON MH #12879 Spiller Phone: (212) 580–8383  
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: Caller Phone:  
 DEC Investigator: gdbreen Contact for more spill info: ERTSDESK Contact Person Phone: (212) 580–8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non–petroleum/non–hazardous spills.  
 Class: Any Type of RP Including No RP – No DEC Field Response – Corrective Action by Spill Response Not Required

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 04/26/2007       |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| ANTIFREEZE       | OTHER               | 15.00            | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

**Caller Remarks:**

ON 15 GALLONS OF WATER: CONED#205554

**DEC Investigator Remarks:**

06/28/07 – See eDocs for Con Ed report detailing cleanup and closure. 205554. see eDocs

**Map Identification Number 161**

**SB12896**

**Spill Number: 0404949**

**Close Date: 10/22/2004**



17 WEST 71 ST

MANHATTAN, NY

TT-Id: 520A-0095-731

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1668 feet to the SSW

**ADDRESS CHANGE INFORMATION**

Revised street: 17 W 71ST ST  
 Revised zip code: NO CHANGE

|                            |                                          |                                      |
|----------------------------|------------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN   | Spiller: BILL MURPHY                     | Spiller Phone: (212) 580-6763        |
| Notifier Type: Other       | Notifier Name: BILL MURPHY               | Notifier Phone: (212) 580-6763       |
| Caller Name: BILL MURPHY   | Caller Agency: CONED                     | Caller Phone: (212) 580-6763         |
| DEC Investigator: JHOCONNE | Contact for more spill info: BILL MURPHY | Contact Person Phone: (212) 580-6763 |

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 08/05/2004 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 16.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

no fire,smoke,or private property,no sewers.oil spilled onto 200 gallons of water.con ed spill #-154725

**DEC Investigator Remarks:** NOTE: These remarks are shorter than in the previously tracked spill

e2mis 154725:

16 gallons of unknown oil and 200 gallons of water in service box SB12896. Allstate PowerVac was in the process of flushing the service box removing cement and dirt when the top layer of dirt fell into the service box revealing the oil and water below. They immediately stopped their work, but believe that some oil has entered their truck and contaminated it. Cleanup is pending lab results.

EH&S rep called to report that he spoke to the crew, crew supervisor & Allstate personell on site & they reported that it is not 16 gallons of oil that was initially reported but only 2 gallons of oil.

15:00 hrs. the cleanup was completed by Allstate PowerVac. The following solid debris was removed from the structure: 7 pieces of 3 ft. 2x4 wood, concrete, black top, dirt, toothbrush, spoon and other items. The vendor used Enviro-Prep solution as required to address any lead issue. 40 gallons of oil & water mix was removed. The structure was double washed and rinsed with Citrus Cleaner.

Lab Sequence Number: 04-06192-001: PCBs < 1 ppm

Lab Sequence Number: 04-06193-001: Analysis indicates the presence of a substance similar to a light fuel oil.

Lab Sequence Number: 04-06192-002: Flash Point, PMCC > 140 deg F

**Map Identification Number 162**

**MANHOLE #25950**

**Spill Number: 0207710**

**Close Date: 02/10/2003**



86TH ST & AMSTERDAM AV

MANHATTAN, NY

TT-Id: 520A-0101-347

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 1699 feet to the N

**ADDRESS CHANGE INFORMATION**

Revised street: W 86TH ST / AMSTERDAM AVE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Affected Persons  
 Caller Name: LARRY COSTA  
 DEC Investigator: KMFOLEY

Spiller: UNKNOWN - Unknown  
 Notifier Name: JOHN MORAN  
 Caller Agency: CON EDISON  
 Contact for more spill info: CALLER

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (212) 580-6763  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/25/2002 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN MATERIAL | OTHER          | 10.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

10 GLS OF UNKNOWN ON 10 GLS OF WATER. CLEAN UP WILL BEGIN WHEN RESULTS ARE IN.

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was FOLEY Con Ed e2mis #145726:

10-25-02 @ 04:05 THIS INCIDENT WAS REPORTED @ 04:05 AND WAS INPUTTED @ 05:05 DUE TO THE SYSTEM BEING DOWN. R Ringen #65144 reports that while doing scheduled feeder work @ m25950 located at n/e/c w 86 st & amsterdam av, he discovered 3 gallons of an

unknown substance ( possibly old insulatum from a blown joint) on the concrete floor and walls of the structure and the cables and arc proofing in the structure mixed with 10 gallons of water (the structure makes water). There was or is no smoke or fire involved. No sewer or waterway affected. No injuries and weather had no affect. Account # 12030 is being used for this incident. No measuring device was used to determine the amount of the spill. Source and cause of spill are unknown. No private property affected. No oil filled equipment in the structure. No askarel components involved. Water is standing. There is visual water movement. There is a sewer connection as per conduit plate m-40-d-3. Sump is not verified. No sump pump. Ther are substantial cracks. Access anytime. No dielectric filled feeder in the structure. 2 sludge samples taken from the spill, 1 for id and 1 for pcb . Sample priority E . Chain of custody # bb02940. Cleanup is pending lab results.

Lab Sequence Number: 02-10034-001 Date Approved: 10/25/2002 E2 Incident Number: 145726 Date Received: 10/25/2002 Chain of Custody ID: BB02940 Date Sampled: 10/25/2002 PCB Analysis by EPA 608/8082 MATRIX: OIL GRAB LOCATION: NEC W 86 ST & AMSTERDAM AVE STRUCTURE: MANHOLE 25950 Aroclor 1242 < 1.0 ppm Aroclor 1254 24.8 ppm Aroclor 1248 < 1.0 ppm Aroclor 1260 < 1.0 ppm TOTAL PCB 25 ppm

Account # 12030 is being used for this incident. No measuring device was used to determine the amount of the spill. Source and cause of spill are unknown. No private property affected. No oil filled equipment in the structure. No askarel components involved. Water is standing . there is visual water movement . There is a sewer connection as per conduit plate m-40-d-3. Sump is not verified. No sump pump. Ther are substantial cracks. Access anytime. No dielectric filled feeder in the structure. 2 sludge samples taken from the spill, 1 for id and 1 for pcb . Sample priority E . Chain of custody # bb02940. Cleanup is pending lab results.

CIG L Costa #13880 notified @ 04:24

UPDATE 10/25/02 23:20 hrs ab Sequence Number: 02-10035-001 Date Approved: 10/25/2002 E2 Incident Number: 145726 Date Received: 10/25/2002 Chain of Custody ID: BB02940 Date Sampled: 10/25/2002 Oil Identification Analysis by NYSDOH 310-13 (Hydrocarbon Scan) MATRIX: OIL GRAB LOCATION: NEC W 86 ST & AMSTERDAM AVE STRUCTURE: MANHOLE 25950 FEEDER ID: Analysis indicates the presence of a substance similar to a dielectric fluid.

10/26/02 14:01 M. Melendez # 11285 oUnderground (cleanup) reports that the cleanup was completed 100% at 14:00. There was 1 bag of ppe generated with the spill. the tanker removed 40 gallons of a water/oil mixture. the structure was double washed with slix. The spill tag # 33490 was removed.

UPDATE: 10/10/2003: Underground Planner J. Wilson reported that the manhole was inspected and found to be oil free with all cable ends capped.

#### Map Identification Number 163



**245 WEST 75TH STREET/ NEW**

245 WEST 75TH STREET

NEW YORK CITY, NY

**Spill Number: 8702852**

**Close Date: 07/09/1987**

TT-Id: 520A-0098-717

#### MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 1705 feet to the W

#### ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

|                                   |                              |                       |
|-----------------------------------|------------------------------|-----------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: UNKNOWN             | Spiller Phone:        |
| Notifier Type: Citizen            | Notifier Name:               | Notifier Phone:       |
| Caller Name:                      | Caller Agency:               | Caller Phone:         |
| DEC Investigator: UNASSIGNED      | Contact for more spill info: | Contact Person Phone: |

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 07/09/1987 | 07/09/1987          | UNKNOWN        | UNKNOWN                 | NO                  |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

Caller Remarks:

CHEMICAL ODOR IN APARTMENT HALLWAYS & APARTMENTS.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was

10/10/95: This is additional information about material spilled from the translation of the old spill file: UNKNOWN ODOR.

Map Identification Number 164

APTHORP BUILDING

252 WEST 79TH ST

MANHATTAN, NY

Spill Number: 9512657

Close Date: 01/20/2006

TT-Id: 520A-0092-269

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1705 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                             |                                                   |                                      |
|-----------------------------|---------------------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN    | Spiller: MISS ROSS – MGNG CO. – OWNER OF BLDG     | Spiller Phone: (212) 580-9500        |
| Notifier Type: Local Agency | Notifier Name: JOANN GREYLAND-AHSER               | Notifier Phone: (212) 877-3220       |
| Caller Name: CHANTEL VINSON | Caller Agency: NYC DEP                            | Caller Phone: (718) 595-6777         |
| DEC Investigator: SXAHMED   | Contact for more spill info: JOANN GREYLAND-AHSER | Contact Person Phone: (212) 877-3220 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 01/11/1996 |                     | OTHER          | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

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**Caller Remarks:**

NOTIFIER STATES THAT THERE IS OIL DRIPPING ONTO HER WINDOW FROM FLOOR ABOVE HER – IT OCCURS DAILY AND IT IS UNKNOWN WHERE IT IS COMING FROM

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**DEC Investigator Remarks:**

8/15/05 – Haggerty – spoke with Mrs. Ross, property manager, she has no records dating back that far. All other contact info outdated ----site visit

12/19/2005: This is a multi storied building. According to the callers remark, site visit may help to close the spill. (Sadique)

01/20/2006: John Grathwol and I visited the spill location on 01/18/2006 at 11:00am. This building has two other addresses: 2211 Broadway, NY and 390 West End Associates, NY.

Walked around the building. Took photo of vent pipe. Met with Building Asstt Superintendent Mr. Frank Rodriguez. He took us to the basement. Inspected the boiler room and tank area. Huge tank (20,000 gal) encased in concrete. No oil on the floor or in the drain. Took photos. Spill can be closed. (Sadique)

01/20/2006: Spill closed. (Sadique)

**Map Identification Number 165**
**DRUM RUN**

213 WEST 85TH STREET

MANHATTEN, NY

**Spill Number: 0707307**
**Close Date: 10/31/2007**

TT-Id: 520A-0211-099

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 1731 feet to the N

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN

Notifier Type: Local Agency

Caller Name:

DEC Investigator: SFRAHMAN

Spiller: AZALIA – IN ALLEY WAY

Notifier Name:

Caller Agency:

Contact for more spill info: AZALIA

Spiller Phone: (212) 689-1520

Notifier Phone:

Caller Phone:

Contact Person Phone: (212) 689-1520

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 Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 10/03/2007       |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 0                | GALLONS                 | 0                  | GALLONS             | SOIL                 |

Caller Remarks:

4 OPEN CONTAINERS FILLED WITH FUEL OIL AND OIL ON ALLEY WAY. FUMES ARE STRONG:

DEC Investigator Remarks:

10/31/07 Drum was not found on 10/30/07.(SR)

Map Identification Number 166

SPILL NUMBER 0311725

Spill Number: 0311725

Close Date: 02/13/2004



159 WEST 71ST ST/BTWN COL

MANHATTAN, NY

TT-Id: 520A-0095-283

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1745 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: 159 W 71ST ST  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Other  
 Caller Name: AZALEA MADDIX  
 DEC Investigator: TJDEMEO

Spiller: MICHAEL HEALPBURN  
 Notifier Name: ANOTHER CALL CENTER  
 Caller Agency: DEP EMERGENCY CALL CENTER  
 Contact for more spill info: MICHAEL HEALPBURN

Spiller Phone: (201) 871-4333  
 Notifier Phone:  
 Caller Phone: (212) 689-1520  
 Contact Person Phone: (201) 871-4333

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/18/2004       |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #6 FUEL OIL      | PETROLEUM           | 0                | GALLONS                 | 0                  | GALLONS             | SOIL                 |

Caller Remarks:

they recieved from another call center (3-1-1) reporting the spill. No other information was available. Unknown what the spill had spilled on ie; land etc.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was DEMEO 2/13/04 TJD Street spill. Sanatation sanded roadway. Spill closed.

Map Identification Number 167

**SPILL NUMBER 9908618**  
400 WEST END AVE

MANHATTAN, NY

**Spill Number: 9908618**

**Close Date: 02/26/2003**  
TT-Id: 520A-0092-653

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 1755 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
Notifier Type: Affected Persons  
Caller Name: JIM CAREY  
DEC Investigator: SMSANGES

Spiller: PETER MARTIN - ROSE ASSOCIATES  
Notifier Name: AARON BURKS  
Caller Agency: CASTLE OIL CORPORATION  
Contact for more spill info: PETER MARTIN

Spiller Phone: (212) 362-4034  
Notifier Phone:  
Caller Phone: (718) 579-3414  
Contact Person Phone: (212) 362-4034

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/15/1999 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 10.00            | GALLONS | 10.00              | GALLONS | SOIL                 |

Caller Remarks:

TANK OVERFILL DUE TO EQUIPMENT FAILURE

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SANGESLAND

**Map Identification Number 168**

**SPILL NUMBER 9712910**

**Spill Number: 9712910**

**Close Date: 02/19/1998**



WEST 72ND ST & BROADWAY

MANHATTAN, NY

TT-Id: 520A-0101-961

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 1778 feet to the WSW

**ADDRESS CHANGE INFORMATION**

Revised street: WEST 72ND ST / BROADWAY  
 Revised zip code: 10023

Source of Spill: UNKNOWN  
 Notifier Type: Other  
 Caller Name: GWENDELYN HAWKINS  
 DEC Investigator: KSTANG

Spiller: UNKNOWN  
 Notifier Name: DISP #344  
 Caller Agency: DEP  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone: (212) 570-4261  
 Caller Phone: (718) 595-6700  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 02/19/1998 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled                                                                                            | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------------------------------------------------------------------------------------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| The following material(s) was dropped or revised by the NYS DEC. Call Toxics Targeting for more information |                |                  |         |                    |         |                      |
| #5 FUEL OIL                                                                                                 | PETROLEUM      | 50.00            | GALLONS | 50.00              | GALLONS |                      |

**Caller Remarks:**

CALLER REPORTING SPILL AT ABOVE INTERSECTION. PPRODUCT WAS CONTAINED AND CLEANED.

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TANG

**Map Identification Number 169** **APT BLDG**  
 342 WEST END AVE

MANHATTAN, NY

**Spill Number: 0511868**

**Close Date: 01/24/2006**  
 TT-Id: 520A-0095-766

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1778 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Other  
 Caller Name: MARGRET GENTLE  
 DEC Investigator: HRPATEL

Spiller: LAWRENCE ZOMBEK – APT BLDG  
 Notifier Name: ROBERT DITACCO  
 Caller Agency: STUYVESANT FUEL  
 Contact for more spill info: LAWRENCE ZOMBEK

Spiller Phone: (914) 715-7485  
 Notifier Phone: (718) 665-5700  
 Caller Phone: (718) 665-5700  
 Contact Person Phone: (914) 715-7485

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/13/2006 |                     | OTHER          | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 13.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

Caller reports her driver delivered 13 gallons last night. He did not hear the vent alarm. Unknown to the driver the pipe to the tank was disconnected. Apt is switching over to gas. Spill was onto dirt floor in the basement. No company has been contacted for cleanup. Super to the building is Jose 917.642.6650.

**DEC Investigator Remarks:**

1/17/06–Vought–Off hours duty responder. Vought called Margaret Gentile and as per her super disconnected fill pipe and owner ordered delivery. Approximately 13 gallons of fuel was delivered and no whistle was heard by delivery man and he then stopped delivery. Serviceman from Stuyvesant Fuel found disconnected fill box. Vought called Zombeck and left message to return call to DEC. Vought received call from Zombeck and oil tanks were being removed as the building was switching to natural gas. Con Edison’s subcontractor covered fill line with steel plates and as they were removing the plates damaged the fill box. Cleanup of residence being performed by Con Edison. Soil being excavated in basement (7’x9’ excavation at time of call). AL Eastmond hired to clean up spill. Vought called Zombeck for update and left message to return call.

1/19/06–Hiralkumar Patel. Called Mr. Zombeck and he is going to call me back. I have sent out CSL to Mr. Zombeck

I received call from Mr. Zombeck. As per his information, the fill pipe was never disconnected from tank. this facility had two

tanks of capacity 275 gal. and as they are moving heating system from oil to gas system, one tank was already taken out last month by Al Eastmond. Bill Lightel (212-722-5506) at Calaray Gas Heat Corp. is the contractor who is handling this process of transferring from oil to gas. Bill has contacted Con Edison for gas system. and as per Mr. Zombek when crew from Con Edison was working on site, they had damaged the fill line at elbow. and it was cracked and broken and was leaking at elbow. as Con Edison was working on site, they had placed one plate over the fill port because they are digging nearby the fillport to get gas line in the house.

The oil company delivers oil every week and on the day of incident, they found that the fill port was covered and thought the fill line was disconnected and went back. Later on, the homeowner called the oil company for oil delivery. on 13th Jan., oil company had delivered 13 gal. of oil and the driver didn't check the gauge. As per the owner, when he went down in basement on incident day, he found elbow broken and there is 15 inch on gauge. He repaired it himself. there is no leak at present. and when he start removing absorbent and oil waste from basement floor, he found that the so called soil was dirt only. and the floor beneath that dirt was in good condition. there are no cracks or sewer port nearby. then he and his friend moved out all dirt from floor in two drums. and waiting for a guy from Empire Environmental to pick up for disposal. as per homeowner's knowledge, up until now no one is hired to cleanup the site or to pick up waste. he is waiting to hear from Calray Corp.

Calray Gas Heat Corp 211 East 117th Street Manhattan, NY 212-722-5506

Mr. Zombek is going to send me photographs of basement.

1/20/06-Hiralkumar Patel.

Left message for Margret at Stuyvesant Fuel. Spoke with Bill at Calray and he is going to call me back. Received call from Bill, and as per him, Con Edison had damaged fill line during work. but the spill was too little probably less than 3 gal. and its on concrete floor, and its all cleaned up and stored in barrel and waiting to get disposed.

Spoke with Ms. Margret Gentle at Stuyvesant fuel. the homeowner asked for delivery on 13th of Jan. and driver from fuel company went there at around 10 at night. Driver had started delivery oil, but he didn't hear vent alarm so he stop after delivering 13 gal of oil. on next day owner called fuel company to deliver oil. but before delivering oil, a man from fuel company names Robert Ditaco went out there to check vent alarm system and he found that the fill pipe was disconnected from tank. As per Margret, the super of the building was ready to do cleanup. the number for super on report is wrong and the person who was on the phone not ready to talk anything regarding case.

Talked with Mr. Zombek at 2:40PM. there are 10 tenants living in this building. he is taking pictures right now and going to send me within an hour. Make appointment for visit on monday after reviewing photographs and calling him on monday 23rd Jan.

1/23/06-Hiralkumar Patel. Received email from Mr. Zombek containing pictures of basement. C:Hiralkumar West End Ave

----- Sir the floor looks beige in that absorb all was sprinkled on it. Eastmond came to arrange removal of 13 bags. As I type, Con Edison is completing installation of gas line.

Lawrence Zombek President Orchard Management Inc. 249 West 76 St.#A New York, NY 10023 212-496-7387 phone 914-715-7485  
cell/txt larryz8@aol.com -----

Spoke with Mr. Zombek. there is no complaints from tenants about oil vapor. Con Edison has finished intallation of gas line and they probably start on gas from Wed. 25th Jan.,2006, once the oil tank will run out of oil. Mr. Zombek doesn't know the name of the person from Eastmond who picked up waste bags from site. He was hired by Calray. Probably Eastmond will remove this second tank from site once they start on gas. Left message for Mr. Bill Lightel at Calray.

Spoke with Mr. Izak at Eastmond. As he know, an associate named Mr. Rene Lewis (Cell: 917-299-7257) had went to Zombek's house to pick up contaminated waste. Left message for Mr. Lewis at 2:30PM.

1/24/06-Hiralkumar Patel. Spoke with Rene Lewis at Eastmond. as per him, its a solid concrete, having no cracks or sewer ports on floor. when he reached on site, there were 15 bags of debris ready to picked up. Little vapor smell in basement due to these bags. the fill line was cracked and less than 5 gal of oil on floor. floor looks good now and as per him, there is no subsurface contamination as the concrete floor was in good condition.

No further action required letter sent out to Mr. Zombek. Case Closed.

**Map Identification Number 170**

**CENTRAL PARK/THE LAKE**

**Spill Number: 9913687**

**Close Date: 03/06/2000**

 59TH ST/110TH ST NEW YORK, NY

TT-Id: 520A-0101-956

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING - LARGE SITE  
 Approximate distance from property: 1781 feet to the SSE

**ADDRESS CHANGE INFORMATION**

Revised street: CENTRAL PARK LAKE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Local Agency  
 Caller Name: NELSON NICHOLAS  
 DEC Investigator: MCTIBBE

Spiller: UNKNOWN  
 Notifier Name: SAME  
 Caller Agency: NYC PARKS DEPT  
 Contact for more spill info: NELSON NICHOLAS

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (212) 628-1036 ext. 2  
 Contact Person Phone: (212) 628-1036 ext. 2

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 03/04/2000       |                     | OTHER            | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN MATERIAL | OTHER               | 0                | GALLONS                 | 0                  | GALLONS             | SURFACE WATER        |

Caller Remarks:

UNKNOWN SHEEN DISCOVERED AT ABOVE LOCATION. ABSORBENT BOOMS HAVE BEEN PLACED IN WATER. MATERIAL MAYBE COMMING FROM A DEP CATCH BASIN ON SIDE OF THE 79TH ST TRANVERSE RD. NO CALL BACK REQUESTED. CALLER BELIEVES MATERIAL IS ROAD GRIME AND GROUND WATER.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIBBE

**Map Identification Number 171**      **CENTRAL PARK LAKE**      **Spill Number: 9912733**      **Close Date: 02/09/2000**  
 WEST 79TH STREET+CENTRAL      MANHATTAN, NY      TT-Id: 520A-0101-955

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING – LARGE SITE  
 Approximate distance from property: 1781 feet to the SSE

ADDRESS CHANGE INFORMATION

Revised street: CENTRAL PARK LAKE  
 Revised zip code: NO CHANGE

|                                   |                                           |                                      |
|-----------------------------------|-------------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN          | Spiller: UNKNOWN                          | Spiller Phone:                       |
| Notifier Type: Federal Government | Notifier Name: SAME                       | Notifier Phone:                      |
| Caller Name: GWEN HAWKINS         | Caller Agency: DEP                        | Caller Phone: (718) 595-6777         |
| DEC Investigator: O'DOWD          | Contact for more spill info: GWEN HAWKINS | Contact Person Phone: (718) 595-6777 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/08/2000 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled           | Material Class     | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|----------------------------|--------------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN HAZARDOUS MATERIAL | HAZARDOUS MATERIAL | 0                | GALLONS | 0                  | GALLONS | SURFACE WATER        |

Caller Remarks:

they have a sheen sitting on the water.unknown how it happened

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

**The following DEC Investigator Remarks were available prior to 1/1/2002:**

2/8/00 4:20 PM SPOKE TO ELIE/DEP X4653. HE IS TRYING TO FIND OUT BETTER INFORMATION ABOUT IT. TOLD HIM IF IT'S A FISH KILL LET US KNOW OR ELSE JUST COORDINATE WITH NYC PARKS DEPT.

**Map Identification Number 172** **CENTRAL PARK LAKE, WEST** **Spill Number: 9106422** **Close Date: 09/14/1991**  
 CENTRAL PARK LAKE, WEST NYC, NY TT-Id: 520A-0101-954

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING – LARGE SITE  
 Approximate distance from property: 1781 feet to the SSE

ADDRESS CHANGE INFORMATION

Revised street: CENTRAL PARK LAKE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: NYC PARKS DEPT Spiller Phone:  
 Notifier Type: Citizen Notifier Name: Notifier Phone:  
 Caller Name: JOSEPH COPLAN Caller Agency: ENV RECOVERY Caller Phone: (212) 255-9604  
 DEC Investigator: O'DOWD Contact for more spill info: Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 09/12/1991 | 09/14/1991          | UNKNOWN        | UNKNOWN                 |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIESEL           | PETROLEUM      | 250.00           | GALLONS | 0.00               | GALLONS | SURFACE WATER        |

Caller Remarks:

DEC ON SCENE. CLEAN UP EFFORTS MADE ON EAST SIDE; MORE ON WEST.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 173** **DRUM RUN** **Spill Number: 0707272** **Close Date: 10/31/2007**  
 119 WEST 87TH STREET MANHATTEN, NY TT-Id: 520A-0211-096

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1791 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER Spiller: MIKE WARDEN Spiller Phone: (646) 584-5800  
 Notifier Type: Other Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: Caller Phone:  
 DEC Investigator: SFRAHMAN Contact for more spill info: MIKE WARDEN Contact Person Phone: (646) 584-5800

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/02/2007 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled   | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|--------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                    |                | Units            |         | Units              |         |                      |
| WASTE OIL/USED OIL | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

ON SIDEWALK NEEDS TO BE PICKED UP! 55 GALLON

DEC Investigator Remarks:

add to next drum run 10/31/07 Drum was pumped out on 10/30/07 and NYC sanitation was notified to pick up the empty drum.(SR)

**Map Identification Number 174** **BUILD ING** **Spill Number: 0507825** **Close Date: 10/07/2005**  
 23 WEST 87TH STREET NEW YORK, NY TT-Id: 520A-0098-769

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1793 feet to the NE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER Spiller: BARRY - BUILDING Spiller Phone: (212) 675-0593  
 Notifier Type: Other Notifier Name: EDDIE FELICIANO Notifier Phone: (718) 665-5700  
 Caller Name: EDDIE FELICIANO Caller Agency: STUYVESANT FUEL Caller Phone: (718) 665-5700  
 DEC Investigator: SMSANGES Contact for more spill info: BARRY Contact Person Phone: (212) 675-0593

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |         | Penalty Recommended |         |                      |
|------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 09/29/2005       |                     | UNKNOWN        | NO                      |         | NO                  |         |                      |
| Material Spilled |                     | Material Class | Quantity Spilled        | Units   | Quantity Recovered  | Units   | Resource(s) Affected |
| #2 FUEL OIL      |                     | PETROLEUM      | 0                       | GALLONS | 0                   | GALLONS | SOIL                 |

Caller Remarks:

LOOKS LIKE IT MAY BE COMING FROM AN LINE UNDER CEMENT; IT IS CONTAINED AND STILL INVESTIGATING;

DEC Investigator Remarks:

Sangesland spoke to Eddie Feliciano at Stuyvesant Fuel. He said there was a problem in the basement floor with a gate valve that seems to be leaking. This valve is between the tank and the burner. There appears to be some contamination in the soil around this valve. Unknown the extent of the problem.

Property manager Barry Zonan (212-675-0593) stated that Petroleum Tank Cleaners was on their way to the building right now to take care of any emergency work which may be needed (Isolate the tank?) They will return later this week to conduct whatever remediation work is needed.

10/7/2005 Sangesland spoke to Ray Lara at PTC. He replaced the valves and lines on two 275 gal aboveground tanks in the basement. Slight staining on the cement under the tanks. PTC told the property manager that the two tanks are old and should be replaced. Unknown if this work will be done.

Spill event closed.

Map Identification Number 175



MANHOLE 27538

W 85TH ST/BROADWAY

MANHATTAN, NY

Spill Number: 9814968

Close Date: 04/01/1999

TT-Id: 520A-0091-009

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 1827 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

|                            |                                         |                                      |
|----------------------------|-----------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN   | Spiller: UNKNOWN                        | Spiller Phone:                       |
| Notifier Type: Other       | Notifier Name: MR CURTIS                | Notifier Phone: (212) 338-3352       |
| Caller Name: JOE DEVOTI    | Caller Agency: CON EDISON               | Caller Phone: (212) 580-6763         |
| DEC Investigator: CAENGELH | Contact for more spill info: JOE DEVOTI | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/17/1999 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                   |                | Units            |         | Units              |         |                      |
| UNKNOWN PETROLEUM | PETROLEUM      | 2.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

2 GAL OF OIL ON 110 GAL OF WQATER CONTAINED IN THE MANHOLE. CON ED 123-665. CLEAN UP PENDING LAB RESULTS.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was ENGELHARDT Con ed e2mis notes:

Approx 2 qts of unknown oil ontop of approx 110 gal of water. PCB<1ppm

**Map Identification Number 176**     **2350 BROADWAY**  
 2350 BROADWAY

**Spill Number: 9814099**     **Close Date: 04/20/2000**  
 MANHATTAN, NY     TT-Id: 520A-0101-350

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1830 feet to the NNW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                            |                                         |                                      |
|----------------------------|-----------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN   | Spiller: UNKNOWN                        | Spiller Phone:                       |
| Notifier Type: Other       | Notifier Name: MR FARO                  | Notifier Phone:                      |
| Caller Name: JOE DEVOTI    | Caller Agency: CON EDISON               | Caller Phone: (212) 580-6763         |
| DEC Investigator: JHOCONNE | Contact for more spill info: JOE DEVOTI | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 02/23/1999 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

during digging in the street crew found contaminated soil

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL DEC Inspector notes:

2/24/99: Dave Perez ERT: Possible 3rd party spill, gas crew digging for gas main repair found contamination. Contaminated with oily substance. Requested Perez to contact Astoria lab, collect sample for oil. ID will pass along to primary for 2/23.

2/26/98: Bill Wallace e2mis has not been updated. Will check with chem lab for results of oil id and get back to me. He called back with PCB results: <1ppm

Excavation is still open. Samples for PCB, TCLP, Oil Id and tph are schedule for Monday. (Note: we did full sampling because we had to bring back some of the third party dirt back to our workout location pending analysis for disposal.)

**Map Identification Number 177** **W79TH ST / WEST END AVE**  
 W79TH ST / WEST END AVE

MANHATTAN, NY

**Spill Number: 9808972**

**Close Date: 05/03/2007**  
 TT-Id: 520A-0097-825

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 1851 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: W 79TH ST / WEST END AVE

Revised zip code: NO CHANGE

|                                  |                              |                              |
|----------------------------------|------------------------------|------------------------------|
| Source of Spill: UNKNOWN         | Spiller: CON ED              | Spiller Phone:               |
| Notifier Type: Responsible Party | Notifier Name: HANNAR        | Notifier Phone:              |
| Caller Name: STEVE ROMERO        | Caller Agency: CON EDISON    | Caller Phone: (212) 580-6763 |
| DEC Investigator: JHOCONNE       | Contact for more spill info: | Contact Person Phone:        |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/19/1998 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| DIELECTRIC FLUID | PETROLEUM      | 350.00           | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

DISCREPANCY OF 350 GAL ON FEEDER M52 AT PUMP HOUSE #2 – CASE 120616 SPILL COULD ALSO AFFECT REGION 3 – REGION 2 REQUEST THEY BE ADVISED. FOUND DROPLETS OF OIL IN WATER IN A FILLER ON 80TH AND WEST END AVE. IN NY. UPDATE 10/19/98 AT 2037 – LOOKING FOR A LEAK ON M54 AND IT WAS FOUND 50 TO 60 GALLONS IN THE MANHOLE.

DEC Investigator Remarks:

05/03/07 – See e-docs for Con Ed report detailing cleanup and closure. Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL

10/19/98, 2104 hrs: Mark Tibbe (off-hours responder) receives update from dispatcher that leak was found in manhole and contained 50 to 60 gallons. This turned out to be wrong. At 2237 hrs. finally got through to Cone Ed, and was given this update: there were 2 leaks:

- (1) major leak at 79th Street and West End Avenue which is being excavated
- (2) minor leak (<1 gph) at 155th St & St. Nicholas, which he had no further info on.

The feeder at that time was still active. (MCT)

10/19/98, 1459 hrs: Spoke with John Hegerty (Con Ed Transmission Ops). Feeder goes from W. 49th St to Sprain Brook substations. They are checking manholes now, and PFT van is out. Feeder run is 17 miles. Manhole survey (80 MHs) should be done on midnight shift. Line will not be depressurized. Leak rate right now is 15 gph (350 gallons since yesterday). They are evaluating the system to see if they can take it out of service and reduce pressure. (CAE)

10/19/98: at request of Randy Austin, I contacted Region 3 (Pete Doshna) and left him a message, since leak may be found in Reg. 3. (JHO)

10/20/98: Leak found at 79th St/West End Ave – clamp is on, permanent repairs will be done today. Met at site with Gerry Materazzo (TO) – leak is on southwest corner of 79th/WE Ave. Excavation is about 6' x 12' x 2.5' deep, and about 4' deep under leaking section. Soil at bottom of excavation under feeder smells of dielectric fluid. Told Gerry to guzzle as much as possible and sample and analyze for df. Sample to be taken from bottom of excavation. Gerry to guzzle tomorrow and page me to tell me when they will do sampling.

Clean Harbors is on scene with a 6000 gallon vac truck. Oil entering sewer at same corner. Have removed about 1000 gallons of oily water from sewer. Sorbent boom in sewer trying to plug oil so it can be vac'ed out. Called ERT Bill Wallace – he said DEP was notified of oil in sewer. (CAE)

APPENDIX B SITE NO. 28. TRANSFERRED FROM ENGELHARDT TO O'CONNELL.

~~~~~ e2mis no. 120-616:

19-OCT-1998 @ 13:00 STATION OPERATOR REPORTS DAILY PUMPHOUSE READINGS INDICATES A DISCREPANCY OF 350 GAL. FROM THE W.49TH STREET PUMPHOUSE #2 FEEDER M52.

At 12:30 conference call approx 15gph leak was declared on Fdr M52. To crews brought in from field. PFT van mobilized to 125th & B'Way to go South and TO crew will provide support. TO crews also checking Manhattan manholes. CGO crews to check Bronx and Westchester manholes. Fdr cannot be removed from service since Feeders C3403, A2253 and Y50 are OOS. Clean Harbors notified to respond with cleanup crew and standby at West End Ave and 7th St. VNR notified to standby with barhole and excavation crew at their yard at 124th St and 3rd Ave, Manhattan. 17:00 oil found in manhole 61738 on 155th St and St. Nicholas Ave. Samples taken to PFT van for analysis and to Chem lab for PCB and benzene. Clean Harbors 2nd tanker on location and sent up to MH61738 to pump and investigate manhole. 18:25 possible oil droplets found in sewer at West End Ave and 80th St. Sewer running north. Clean Harbors crew instructed to put oil pads/baloneyes in sewers. 18:50 Sewer checked at 79th and fluid found in sewer. Clean Harbors to install pads/baloneyes in this sewer also. Chem lab reports 98-11259 (mh61738) 3 ppm PCBs. Excavation to be dug at 79th St and West End Ave. Contractor excavated and found leak site at 22:30 10/19/98. At 23:30 temporary Plidco clamp was installed and holding on 5 line at leak location. Leak was on bottom of 5 .

Meeting with Chris Englehardt (DEC) and MEG geologist on location at 12 noon 10/20/98. Remove another 1 – 2 feet of soil after repair is done. MEG to take samples for dielectric fluid in bottom of trench and write report. Trench can be backfilled at that point. on 10/22/98 additional excavation was completed and a recovery well was installed by MEG at the leak location. Samples could not be taken from soil at bottom of trench since the bottom of the trench was rock. Clean Harbors removed 750 gallons of oil/water from sewers and leak location and 7 cubic yards of material from excavation. Site was backfilled and restored. CSD reports that 300 gallons was lost from leak site.

On 12/3/98, 12/8/98, 12/16/98, 12/31/98, 4/1/99, 8/3/99, 8/12/99, 8/20/99, 8/27/99, 9/1/99, 9/10/99, 9/16/99, 9/24/99, 9/30/99 and 10/20/99 MEG removed 1 cubic yard of absorbents and boom from adjacent sewes. On 3/24/99 MEG submitted report to Con Ed for cleanup and well activities.

On November 11, 1998 Miller Environmental Group pumped out 4 gallons of oil/wate out of recovery well.

Map Identification Number 178 **WEST END AV&W 79TH ST**
 WEST END AV&W 79TH ST

MANHATTAN, NY

Spill Number: 9714476

Close Date: 03/30/1998
 TT-Id: 520A-0090-154

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 1851 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: WEST END AV/W 79TH ST
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Local Agency
 Caller Name: KAREN STEVENSON
 DEC Investigator: CAENGELH

Spiller: UNKNOWN
 Notifier Name: FF TOMASZEWSI
 Caller Agency: DEP
 Contact for more spill info: FF TOMASEWSI

Spiller Phone:
 Notifier Phone: (917) 769-0484
 Caller Phone: (718) 595-6777
 Contact Person Phone: (917) 769-0484

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/29/1998 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE | PETROLEUM | 5.00 | GALLONS | 5.00 | GALLONS | SEWER |

Caller Remarks:

CALLER STATED THE SPILL WAS BEING CLEANED UP BY FDNY HAZ-MAT

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was ENGELHARDT 3/29/98 Colonie reported that 1 gal got to sewer.

Map Identification Number 179 **MANHOLE 61728**
 WEST END AV/W 77TH ST

MANHATTAN, NY

Spill Number: 0303245

Close Date: 10/12/2004
 TT-Id: 520A-0102-191

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 1851 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: W 77TH ST / WEST END AVE
 Revised zip code: 10024

| | | |
|----------------------------|--|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Other | Notifier Name: | Notifier Phone: |
| Caller Name: MARK SCHLAGEL | Caller Agency: CON EDISON | Caller Phone: (212) 580-6763 |
| DEC Investigator: AERODRIG | Contact for more spill info: MARK SCHLAGEL | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 06/26/2003 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| UNKNOWN PETROLEUM | PETROLEUM | 10.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

FEEDER M51 INVOLVED – CON ED 148916 – SAMPLE TAKEN CLEAN UP PENDING RESULTS

DEC Investigator Remarks:

E2MIS 148916

On 6/26 @ 19:43, D. Huzior # 13107 of Transmission Ops reported to me that @ 19:20 HRS he discovered approx 10 gal unknown oil and 500 gal water while checking for oil leaks in the M51 Feeder run on the 345 KV in M-61728. The source and the cause are both unknown. The spill is in the concrete structure. Two samples for PCB and ID will bve taken and the Chain of Custody # is pending. No initial cleanup action will be taken at this time.

6/27 @ 01:06 LSN # 03-05299-001 @ 23:39 on 6/26 Total PCB < 1.0 ppm

SPILL CLEANUP CHECKLIST Cause of spill: UNKNOWN, AFTER CLEANING FOUND MODERATE CORROSION IN SEVERAL AREAS Affected by spill: MANHOLE FLOOR 18' X 8' Cleanup Activities: REMOVED/RECOVERED LIQUID/SOLIDS, REMOVED VISIBLE TRACES OF OIL, WASHED SATAINED AREAS Contractor: CLEAN HARBORS Cleanup completed: 06/27/03 @ 14:30 hrs FOUND MODERATE CORROSION IN SEVERAL AREAS ON BOTH FEEDERS & 5 OIL LINES IN MANHOLE. MISSING COAL TAR WRAP NEED TO ABATE ALL COAL TAR AND RETAPE. THE WORK AND TIME SHEET IS PART OF THE M-51 LEAK WE USED THE CREW THAT WAS ON STANDBY. CLEANUP COMPLETED.

Map Identification Number 180

MANHOLE 61728

Spill Number: 0103043

Close Date: 07/20/2001

 WESTEND AVE/W 77TH ST

MANHATTAN, NY

TT-Id: 520A-0102-192

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 1851 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: W 77TH ST / WEST END AVE
 Revised zip code: 10024

Source of Spill: UNKNOWN
 Notifier Type: Affected Persons
 Caller Name: SEAN MCKEEVER
 DEC Investigator: KMFOLEY

Spiller: UNKNOWN – Unknown
 Notifier Name: RON VESELI
 Caller Agency: CON ED
 Contact for more spill info: CALLER

Spiller Phone:
 Notifier Phone:
 Caller Phone: (212) 580-6763
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 06/19/2001 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 15.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

CALLER REPORTING A SPILL OF UNK OIL FROM UNK SOURCE CONED#137742 SAMPLES TAKEN CLEAN UP PENDING LAB RESULTS ON15 GAL OF WATER NO SEWERS OR WATERWAYS EFFECTED NO CALLBACK

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was FOLEY CON ED E2MIS REPORT 6-19-01

Central Gas Operations were on a periodic potential survey and discovered 15gals of an unknown oil on top of 15gals. of water inside MH -61728. Sample taken and cleanup pending.

Clean harbors called and treated MH as 50-499ppm since PCB results were unknown. Chem lab tok samples. Removed 2727 klg. of material from MH under manifest MAM677568. Chem lab reported 01-06674 <1.0ppm PCB after cleanup was completed. Cleanup completed 6-19-01 at 20:00hrs.

Map Identification Number 181

SPILL NUMBER 0011976

Spill Number: 0011976

Close Date: 06/23/2003

 W 71S ST / CENTRAL PARK W

MANHATTAN, NY

TT-Id: 520A-0095-235

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 1856 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: W 71ST ST / CENTRAL PARK W
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Spiller: CON EDISON

Spiller Phone: (212) 580-6763

Notifier Type: Responsible Party

Notifier Name: MORAN

Notifier Phone:

Caller Name: ANTHONY NATALLI

Caller Agency: CON ED

Caller Phone: (212) 580-6763

DEC Investigator: OKWUOHA

Contact for more spill info:

Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/07/2001 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| CABLE OIL | PETROLEUM | 1.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

8 ounces in manhole - case #135414 - sample to be taken

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

E2MIS Note 2/7/01: 8 oz of cable oil leaked onto floor. No smoke, no environmental impact, no private property affected. No sewers or waterways affected.

Map Identification Number 182 **IN APARTMENT**
 114 W 88TH ST – APT 1

MANHATTAN, NY

Spill Number: 9710729

Close Date: 03/23/1999
 TT-Id: 520A-0098-009

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1890 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: 114 W 88TH ST
 Revised zip code: NO CHANGE

| | | |
|--|--|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Citizen | Notifier Name: ELIZABETH RHALL/STEVEN HA | Notifier Phone: (212) 721-2903 |
| Caller Name: ELIZABETH RHALL/STEVEN HA | Caller Agency: RTT / RESIDENT | Caller Phone: (212) 721-2903 |
| DEC Investigator: MCTIBBE | Contact for more spill info: ELIZABETH OR STEVEN | Contact Person Phone: (212) 721-2903 |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 11/08/1997 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

caller have a strong of fuel in her apt – at times it is stronger and make the caller sick it affect the baby's room also
 caller has spoken with randy austic dec 718-482-4933 ext 7100

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIBBE NO ODOR FOUND. POSSIBLE OLDER SPILL FROM FILL. ALL POSSIBLE OPENINGS FROM OUTSIDE WERE SEALED. NO MORE ODORS.

OIL FURNACE REMOVED DURING RENOVATIONS. OIL ODOR STRONGEST ON WESTERN WALL. ALWAYS THERE BUT SOMETIMES STRONG. PRIMARILY IN FRONT ROOM. ADJACENT BROWNSTONE HAS ELCTRIC HEAT.

OWNER – DORIT SHAHAR, 116 WEST 88TH STREET, NY, NY 10024 BLDG MANAGER FOR 114 AND 116 – CHIP LOGAN 212-769-3565. OIL TANK PUMPED OUT BY CONTRACTOR LARRY FLYNN, BEEPER 800-413-4617.

Map Identification Number 183 **2071 BROADWAY**
 2071 BROADWAY

MANHATTAN, NY

Spill Number: 9712912

Close Date: 02/19/1998
 TT-Id: 520A-0097-822

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1902 feet to the WSW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: TANK TRUCK
 Notifier Type: Fire Department
 Caller Name: FF SOLLIN
 DEC Investigator: KSTANG

Spiller: ANTHONY WALLACE – CENTURY STAR
 Notifier Name: ANTHONY WALLACE
 Caller Agency: FDNY
 Contact for more spill info: DENNIS

Spiller Phone: (718) 991-2600
 Notifier Phone: (718) 991-2600
 Caller Phone: (917) 769-0483
 Contact Person Phone: (212) 787-7991

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 02/19/1998 | | OTHER | NO | NO |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

Caller Remarks:

CALLER REPORTING THAT WHEN NOTIFIER FILLED TANK, THE GATE INSIDE TANK WAS CLOSED CAUSING PRODUCT TO BACK UP AND SPILL ONTO GROUND.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TANG CALLED CENTURY STAR, CLEAN-UP CONTRACTOR, TYREE, WAS DISPATCHED TO CLEAN UP THE SPILL.

Map Identification Number 184 **101 CENTRAL PARK WEST**
 101 CENTRAL PARK WEST

MANHATTAN, NY

Spill Number: 9002095

Close Date: 02/27/2003
 TT-Id: 520A-0095-279

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1910 feet to the SSW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|------------------------------|------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: SAME | Spiller Phone: |
| Notifier Type: Other | Notifier Name: | Notifier Phone: |
| Caller Name: TONY SIMONE | Caller Agency: A L EASTMOND | Caller Phone: (212) 378-3000 |
| DEC Investigator: TOMASELLO | Contact for more spill info: | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 05/23/1990 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #6 FUEL OIL | PETROLEUM | 300.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

20K ABOVEGROUND TANK IN BASEMENT- OWNER CONTRACTED W/ABC TANK TO CLEAN TANK OWNER DISCOVERED PRODUCT LOSS A.L. EASTMOND TO PUMP AND REPAIR.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

12/23/96 WAS ASSIGNED TO FINGER; RE-ASSIGNED TO TOMASELLO. SMM. SITE ASSESSMENT TO BE SUBMITTED 12/23/96.

Map Identification Number 185 **6 BLOCK AREA**
 W 71ST / BROADWAY

MANHATTAN, NY

Spill Number: 0503314

Close Date: 06/20/2005
 TT-Id: 520A-0101-888

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 1915 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: W 71ST ST / BROADWAY
 Revised zip code: NO CHANGE

| | | |
|----------------------------------|----------------------------------|--------------------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Police Department | Notifier Name: JOHN MLEKUSCH | Notifier Phone: (646) 610-5580 |
| Caller Name: JOHN MLEKUSCH | Caller Agency: NYPD HEADQUARTERS | Caller Phone: (646) 610-5580 |
| DEC Investigator: JBVOUGHT | Contact for more spill info: | Contact Person Phone: |

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 06/18/2005 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |
| COOKING OIL | OTHER | 0 | GALLONS | 0 | GALLONS | IMPERVIOUS SURFACE |

Caller Remarks:

CALLER REPORTS A SIX BLOCK LONG AREA STARTING AT WEST 72ND AND BROADWAY AND ENDS AT WEST 66TH AND BROADWAY. UNKNOWN SPILLER. EPA IS ENROUTE. NO CLEANUP COMPANY HAS BEEN CONTACTED AS OF YET.

DEC Investigator Remarks:

6/20/05-Vought-Spill reported at #2 fuel oil. Vought responded to spill and spill material was cooking oil. Source of spill was unknown as spill was only one street and did not originate from building. NYDOS on street applying sand at time of DEC arrival. EPA non on route and not onscene. As per NYPD Stallone EPA was NOT contacted. No sewers or drains affected. NYCDEP was onscene but left prior to DEC arrival. Spill closed by Vought.

Map Identification Number 186



SPILL NUMBER 0209914

425 WEST END AVE

MANHATTAN, NY

Spill Number: 0209914

Close Date: 02/25/2003

TT-Id: 520A-0091-390

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1927 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Citizen
 Caller Name: MARIA PASCAL
 DEC Investigator: SMSANGES

Spiller: UNKNOWN
 Notifier Name:
 Caller Agency: CITIZEN
 Contact for more spill info: CALLER

Spiller Phone:
 Notifier Phone:
 Caller Phone: (212) 874-1931
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 12/31/2002 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

caller see's oil on ground ifo house. poss from delivery to school next door.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SANGESLAND CALLED MARIA PASCAL (10.17 AM), WHO CONFIRMED THAT SPILL WAS DUE TO AN OVER-FILL TO HER NEIGHBOR'S OIL TANK. NEIGHBOR'S ADDRESS IS 433 WEST END AVENUE, VIZ A SCHOOL OUT OF SESSION UNTIL 1/6/03. CALLED SUPER FOR SCHOOL(917 939-7207), WHO CONFIRMED THAT SPILL IS ABOUT 10 GALLONS OF HEATING OIL. NO SOIL OR WATER WAS IMPACTED. FERRANTINO FUEL CAUSED THE SPILL AND THEY ARE DOING THE CLEAN-UP.

E.R.

CALLED SUPER (EDDIE AYALA) AT 2.02 PM, WHO CONFIRMED THAT CLEAN-UP IS COMPLETED SATISFACTORLY. THE CLEAN-UP WAS WITNESSED BY THE NYC-DEP.

CALLED MARIA PASCAL (2.14 PM) WHO CONFIRMED THAT CLEAN-UP IS COMPLETED TO HER SATISFACTION.

E.R. DISCUSSED WITH STEVE, WHO RECOMMENDS CLOSURE.

1/02/2003-Vought-See spill #209976 at same location. Spill #0209976 closed and referred to this spill. Vought spoke with Benny Rosin who explained above situation regarding overflow by Farrantino Oil. Spill came out of vent due to broken petrometer.

Oil came out of vent and splashed on sides of both 425 and 433 West End Avenue. Spill entered window box of basement apartment of 425 West End Ave (occupied by Maria Pascal). Window box was initially cleaned using speedy dry. Vought called Farrantino Oil (718-832-6700) and spoke with Dennis Goldstein who is immediately sending out crew. Window box and walls will need to be powerwashed. Goldstein told by Vought that a work invoice will needed to be faxed to NYSDEC for spill closure. Goldstein and Rosen stated that basements of both residences were inspected and no oil was found. According to Rosin the window box has no cracks in the concrete and also contains a drain at the bottom. Duty Desk also received message from Maria Pascal. Vought called Maria Pascal and left message that cleanup crew was on way.

Map Identification Number 187 **355 WEST END AVE**
 355 WEST END AVE

NEW YORK, NY

Spill Number: 9513285

Close Date: 01/23/1996
 TT-Id: 520A-0092-275

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1932 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Other
 Caller Name: PETER BULLA
 DEC Investigator: GUTIERREZ

Spiller: SASSOON SHAHMOON
 Notifier Name: SASSOON SHAHMOON
 Caller Agency: PETRO COMMANDER
 Contact for more spill info:

Spiller Phone:
 Notifier Phone: (212) 724-7265
 Caller Phone: (718) 545-4500
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/22/1996 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 1.00 | GALLONS | 1.00 | GALLONS | SOIL |

Caller Remarks:

1 cup spilled from unknown source onto basement floor – spill cleaned up – unknown what caused it

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 188 **389 WEST END AVENUE**
 389 WEST END AVENUE

MANHATTAN, NY

Spill Number: 0306271

Close Date: 09/16/2003
 TT-Id: 520A-0101-353

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1941 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: PAULA WHITE – 389 WEST END AVENUE Spiller Phone: (212) 580-4777
 Notifier Type: Affected Persons Notifier Name: PAULA WHITE Notifier Phone: (212) 580-4777
 Caller Name: PAULA WHITE Caller Agency: RESIDENT Caller Phone: (212) 580-4777
 DEC Investigator: MXTIPPLE Contact for more spill info: PAULA WHITE Contact Person Phone: (212) 580-4777

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 09/13/2003 | | UNKNOWN | YES | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

OIL COMING IN FROM THE BASEMENT

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIPPLE 9/13/03TIPPLE UPDATING// TIPPLE RESPONDED TO THE SITE. IT APPEARED AS THOUGH THERE HAD BEEN A SEWER BACKUP INTO THE FOYER AREA OF THE BASEMENT. APPROXIMATELY ONE QUART OF OIL WAS FLOATING ON THE INFLUENT LIQUID. THE HOMEOWNER CALLED IN A PLUMBER, I SUPPLIED A FEW OIL ABSORBENT PADS AND THE OIL PROBLEM WAS RESOLVED. DEP WAS INFORMED OF THE SITUATION. //////////////// NO FURTHER ACTION NECESSARY////////////////////

Map Identification Number 189 **MANHOLE 62564** **Spill Number: 9902131** **Close Date: 07/20/1999**
 WEST END AVE / WEST 83RD MANHATTAN, NY TT-Id: 520A-0102-286

MAP LOCATION INFORMATION
 Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 1946 feet to the NW

ADDRESS CHANGE INFORMATION
 Revised street: WEST END AVE / W 83RD ST
 Revised zip code: 10024

Source of Spill: UNKNOWN Spiller: UNKNOWN Spiller Phone:
 Notifier Type: Other Notifier Name: MR COOK Notifier Phone: (212) 580-6763
 Caller Name: STEVEN CRIBBIN Caller Agency: CON EDISON Caller Phone: (212) 580-6763
 DEC Investigator: JHOCONNE Contact for more spill info: STEVEN CRIBBIN Contact Person Phone: (212) 580-6763

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 05/25/1999 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 7.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

7 GAL OF OIL ON 4500 GAL OF WATER. CLEAN UP WILL BE DONE WHEN CREWS ARRIVE CON ED 125-095

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL CON ED E2MIS NOTES 6-09-99

7 gals. of unknown oil on top of 4500 water inside MH62564,oil is contained, no sample taken.

TO supervisor B. Byrne responded to location and found only a sheen in the manhole.

Cleanup completed on 5-27-99 X Removed/recovered liquid/solids. X Used absorbents to remove residual fluids. X Removed visible traces of oil.

Map Identification Number 190 305 – IN BROOKLYN OR MANHATTAN?



305 W 79TH ST

MANHATTAN, NY

Spill Number: 0009084

Close Date: 01/28/2005

TT-Id: 520A-0091-161

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1989 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Local Agency
 Caller Name: JOHN SANPIETRO
 DEC Investigator: RWAUSTIN

Spiller:
 Notifier Name: MR YELLIN
 Caller Agency: NYC DEP
 Contact for more spill info: MR YELLIN

Spiller Phone:
 Notifier Phone: (212) 580-2391
 Caller Phone: (718) 595-6718
 Contact Person Phone: (212) 580-2391

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 11/06/2000 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

says it is leaking into the basement of caller building

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was AUSTIN 5/10/04 – AUSTIN – TRANSFERRED FROM SACCACIO TO AUSTIN FOR REASSIGNMENT – END

1/28/05 – AUSTIN – DUE TO CONFUSION IN ADDRESS GIVEN (MANHATTAN? BROOKLYN?) AND AGE OF REPORT, CLOSED – END

Map Identification Number 191 **APT BLD.** **Spill Number: 1307187** **Close Date: 02/03/2016**
 365 WEST END AVE NEW YORK, NY TT-Id: 520A-0293-325

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1991 feet to the WNW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|--|-----------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: SUMMIT TRANSPORT | Spiller Phone: |
| Notifier Type: Other | Notifier Name: | Notifier Phone: |
| Caller Name: | Caller Agency: | Caller Phone: |
| DEC Investigator: HRPATEL | Contact for more spill info: LINDA PEREZ | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
|------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 10/10/2013 | | UNKNOWN | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #4 FUEL OIL | | PETROLEUM | 50.00 | GALLONS | 0.00 | GALLONS | |

Caller Remarks:

spill to inside basement floor of apartment building/clean up crew en route

DEC Investigator Remarks:

5k tank. 3k dleivery. Driver noticed approx 50 gal weeping through concrete wall. tank is inaccessible. PTC responding with vac truck and crew. DEC Patel to respond as he is near location.

10/10/13–Hiralkumar Patel. alternate address: 301–311 West 77th Street, 365–369 West End Ave

no other spill found.

PBS #: 2–266736. as per PBS record, the site has following two tanks, in–service: – one (1) 5,000 gal #6 oil AST in contact with soil, installed in Dec. 1990 – one (1) 5,000 gal #2 oil AST on saddles, installed in Dec. 1997

2:25 PM:– visited site. met Noe Osorio (building super) and Eric Sutphen (Hess).

site has two 5,000 gal tanks, inside vault with access, in basement. one tank is used for #6 oil and the other tank is used for #4 oil. fill port for #6 oil tank is located at the curb, along W 77th Street. Noe mentioned that #6 oil fill line was replaced in 2008, due to issues with fill box. fill port for the #4 oil tank is along the building's southern wall (close to #6 oil remote fill line) and about 2.5 ft above ground. vent pipes for both tanks are located near the fill port for #4 oil tank.

Noe is working at the site for past six (6) years and the #4 oil tank was not filled up in last six years as they use #6 oil. Noe mentioned that building is converting from #6 to #4 oil.

as part of conversion process, Riteway Tank cleaned the #4 oil tank on 10/03/13. during cleaning, Riteway removed about 2,000 gal oil. after cleaning, today Hess hired sub–contractor to deliver 3,000 gal #4 oil. Eric stated that driver heard whistle during the entire delivery. there was no sign of overfill at the vent pipe.

after making the delivery, driver noted oil coming up from sidewalk, near the fill line. driver and building super checked in basement and found oil on boiler room floor. tank vault is along building's southern foundation wall. elevation of tank vault floor is about 2 ft higher than elevation of boiler room.

oil seepage noted from western wall (into boiler room) and northern wall (into water tank room) of the tank vault. oil got into drain inside the water tank room, which ends into boiler room sump. spilled oil in boiler room got into sump. Noe immediately disconnected the sump.

Hess hired PTC who will pump out product from impacted drain in water tank room, boiler room floor, tank room and boiler room sump.

no petroleum odors noted outside the boiler room. could not inspect the tank room as boiler room floor, in front of tank vault access, was covered with oil.

365 West End LLC.

****property owner**** c/o Melohn Properties Management

****management office**** 1995 Broadway, 14th Floor New York, NY 10023 Attn.: Andrew Melohn

****property manager****

Ph. (212) 787-2500 Ext. 13 email: andrew@melohnprop.com

Noe Osorio

****building super**** Ph. (212) 595-1920

10/11/13-Hiralkumar Patel. 8:45 AM:- visited site. met Noe. PTC removed oil from impacted areas.

inspected tank vault, through vault access door. found minor oil on tank vault floor. PTC will continue cleanup. the #6 oil tank is located on south (along foundation wall) side of the vault and the #4 oil tank is located on north side. #6 oil tank is on brick saddles, while #4 oil tank is on metal legs.

Noe mentioned that the #4 oil fill line goes vertically down for about 1 ft under the sidewalk before it enters into the tank vault.

no petroleum odors noted. Noe mentioned that plumber will replace leaking #4 oil fill line next week. informed Noe that contaminated soil must be removed from under the sidewalk.

10/21/13-Hiralkumar Patel. 9:00 AM:- visited site. met Noe. no further work done at the site. asked Noe to seal fill port for #4 oil tank, immediately. also asked him to clean impacted areas in tank/boiler/water tank rooms for better monitoring.

12/06/13-Hiralkumar Patel. 3:30 PM:- spoke with Noe. he mentioned that PTC started excavating contaminated soil from sidewalk area, on 12/03/13.

12/09/13-Hiralkumar Patel. 12:53 PM:- spoke with Ray at PTC. they started removing contaminated soil from under the sidewalk. work will resume on 12/11/13.

12/18/13–Hiralkumar Patel. 9:40 AM:– visited site. met Noe. inspected tank/boiler rooms. found oil in boiler room sump. asked Noe not to pump oily water into sewer system. Noe mentioned that PTC has cleaned sump at least four times, but oil keeps coming in. found oil seepage from tank room wall, from area underneath the tank room floor (which is at higher elevation than boiler room). Noe mentioned that PTC has started remediating contaminated soil under the sidewalk.

based on observations during the site visit, investigation needed under the tank room floor as well as area around the boiler room sump.

12/19/13–Hiralkumar Patel. 1:55 PM:– spoke with Joseph Helmreich, at building management, as Mr. Melohn was out of office. informed him that the department requires removal of oily water from sump, stop any discharge of oily water into sewer system and delineation/remediation of contamination. 3:15 PM:– sent letter to Mr. Melohn requiring removal of product from boiler sump; delineation of contamination along fill line, inside tank room and around sump; and endpoint samples. asked him to submit report by the end of 03/14/14. letter emailed to Mr. Melohn.

01/13/14–Hiralkumar Patel. 10:17 AM:– spoke with Mark at PTC. they are still removing contaminated soil.

01/16/14–Hiralkumar Patel. 3:11 PM:– spoke with Ray. they finished and backfilled sidewalk excavation after collecting endpoint samples. Ray mentioned that they pumped out oil/water on following dates:

– 10/10/13 – when spill occurred – 12/10/13 – 500 gal – 12/11/13 – 500 gal – 12/31/13 – 200 gal – 01/13/14 – 100 gal

3:25 PM:– visited site. met Noe. he mentioned that PTC finished soil excavation and backfilled sidewalk excavation today. inspected boiler room. found mostly water with some oil in boiler room sump. super is using absorbent pads to collect oil in sump. sump pump was disconnected.

during inspection, noted concrete patch on boiler room floor in southwestern end. Noe mentioned that couple of years ago, they dug boiler room floor in that area near existing sewer trap, to connect another line to existing sewer system. during sewer line work, they dug to groundwater. there was no oil observed on groundwater during sewer line work.

Noe mentioned that PTC is planning to dug test pits in between tank room and boiler room sump.

01/17/14–Hiralkumar Patel. 3:30 PM:– left message for Mr. Melohn. asked him to provide work history regarding sewer line repair.

03/17/14–Hiralkumar Patel. 12:38 PM:– received call from Bob from PTC. they will install a skimmer in boiler room sump. borings will be installed in boiler room, this week.

04/30/14–Hiralkumar Patel. received message from Al Tonn (at 11:25 AM on 04/29/14) from Sovereign Consulting. he mentioned that they will do subsurface investigation, including installation of eight borings, today (04/30/14) and tomorrow.

Albert Tonn Sovereign Consulting, Inc. Ph. (631) 753–8380 email: atonn@sovcon.com

05/13/14–Hiralkumar Patel. 10:56 AM:– spoke with Al. they installed nine borings. bedrock was found couple of feet below grade. he is waiting for sample results from lab.

06/23/14–Hiralkumar Patel. 3:26 PM:– received message from AI.

06/26/14–Hiralkumar Patel. 10:16 AM:– spoke with AI. he mentioned that investigation has been completed and he is planning to submit report, including recommendations for remediation, by the end of July 2014, after he discuss with few contractors. asked AI to submit investigation report now. informed him that a remedial action work plan can be submitted by the end of July 2014. AI will submit investigation report by next week.

07/01/14–Hiralkumar Patel. received email from AI (at 3:59 PM on 06/30/14) including investigation report. abstract:

– on 10/10/13: PTC pumped out approx. 400 gal of fuel oil off the floor of the tank room and basement, and approx. 350 gal of oil–impacted water from basement sump – PTC removed impacted soil from around the former remote fill lines – total of 42 drums of impacted soil, 4 drums of absorbents and 1,950 gal of oil/water were transported off–site – PTC collected three endpoint samples from fill line excavation area – no contamination found in endpoint samples from fill line excavation – installed nine (9) soil borings/temporary wells point (SB–1 through SB–9) – two borings (SB–1 and SB–2) were installed within tank room and others (SB–3 through SB–9) were installed in boiler room – bedrock was found at 3 ft below tank room floor and at 4 ft below boiler room floor – soil observed during this investigation consisted of dark brown to red–brown or gray sandy gravel and silty sand – depth to groundwater at the property ranged from less than 1 ft to 2 ft bg – no groundwater encountered in SB–1 and SB–2 – fuel oil was observed in soil borings SB–5A, SB–7 and SB–8

----- – due to very limited soil encountered in SB–4 and SB–5, these boreholes were relocated and identified as SB–4A and SB–5A – due to the limited soil profile and shallow water table, inly the soil sample with the highest PID reading, above or below the water table, was obtained from each borehole – temporary well screen was installed within boreholes – total of nine (9) soil and seven (7) groundwater samples were submitted for analysis

soil analyticals:

| | SB-1 | SB-3 | SB-4A | SB-5A | SB-6 | SB-7 | SB-8 |
|------------------------|--------|-------|-------|--------|-------|--------|--------|
| 2–3 ft | | | | | | | |
| 2–2.5 ft | | | | | | | |
| 0–2 ft | | | | | | | |
| 1–2.5 ft | | | | | | | |
| 2–3 ft | | | | | | | |
| 0–2 ft | | | | | | | |
| 0–2 ft | | | | | | | |
| Benzene | | | | | | | 192 |
| Toluene | 473 | | | 870 | | | 4,620 |
| Ethylbenzene | 4,590 | | | 2,970 | | | 5,030 |
| Xylene | 26,600 | 453 | 615 | 15,500 | 3,360 | 5,760 | 52,300 |
| 1,2,4–Trimethylbenzene | 42,000 | 3,580 | 2,230 | 18,900 | 6,270 | 10,500 | 55,900 |
| 1,3,5–Trimethylbenzene | 11,300 | 1,130 | 556 | 5,530 | 2,200 | 5,270 | 22,500 |
| Naphthalene | 5,930 | 731 | 374 | 3,040 | 1,050 | 1,790 | 8,790 |

groundwater analyticals:

| | SB-3 | SB-4A | SB-5A | SB-6 | SB-7 | SB-8 |
|--------|------|-------|-------|------|------|------|
| 2.5 ft | | | | | | |

2 ft

2.5 ft

3 ft

4 ft

| | | | | | | |
|------------------------|-----|-----|-----|-----|-----|-----|
| 4 ft Benzene | 27 | 8 | 12 | 16 | 9 | 10 |
| Toluene | 54 | | 102 | 61 | 19 | 70 |
| Ethylbenzene | 108 | 43 | 132 | 81 | 20 | 26 |
| Xylene | 213 | 89 | 616 | 381 | 183 | 292 |
| 1,2,4-Trimethylbenzene | 200 | 114 | 297 | 195 | 139 | 126 |
| 1,3,5-Trimethylbenzene | 57 | 33 | 71 | 59 | 65 | 46 |
| Naphthalene | 45 | 22 | 51 | 41 | 24 | 23 |

08/20/14–Hiralkumar Patel. received email from AI (at 2:05 PM on 07/31/14) including remedial recommendation report. abstract: – proposed to excavate grossly impacted soil to bedrock in an area of approx. 15 ft by 25 ft and ranging in depth from approx. 2 to 4 ft – proposed to collect endpoint sidewall samples – as excavation will be extended to bedrock, endpoint bottom samples will not be collected – after the excavation is complete, the area is to be backfilled with 3/4 inch gravel – a 25 ft long recovery trench drain will be installed – two 4–inch dia. perforated PVC drain pipes will be installed within the trench, and connected to a collection sump – sump will be used to monitor for the presence of oil montly for three months – if oil is discovered, then absorbents will be used to remove the oil

the proposed remedial recommendations does not include contaminated area at former boring locations SB–1 and SB–3.

4:25 PM:– sent email to AI and asked to provide plan to remediate contaminated areas at former boring locations SB–1 and SB–3.

08/27/14–Hiralkumar Patel. 8:16 AM:– received email from AI. he mentioned that as analytical results, of SB–1 and SB–3, for VOCs were below residential use SCOs and due to possibility of structural damage to the buildng in area of SB–1, no remediation was proposed in these areas.

AI compared sample results of SB–1 and SB–3 with restricted residential use SCOs, which shows no VOCs above limit in SB–1 and SB–3.

10:11 AM:– sent email to AI including copy of soil/gw sample result tables from report dated 06/30/14. informed him that sample results are compared with unrestricted use SCOs and it confirms contamination in SB–1 and SB–3. asked him to call back to discuss further.

08/28/14–Hiralkumar Patel. 3:12 PM:– received call from AI. informed him that sample results are compared with unrestricted residential SOCs which shows VOCs above limit and samples from SB–1 and SB–3. AI mentioned that due to short distance between tank and tank room wall and also tank saddle in area, excavation in tank room is not possible. based on this, asked AI to excavate test pit in boiler room, close to SB–1 area. also asked him to include SB–3 area in proposed excavation. AI will discuss with his client and will call back.

09/02/14–Hiralkumar Patel. 3:28 PM:– received email from Al. he mentioned that the remedial excavation will be extended from the main excavation area up to area around boring SB–3 and then immediately in front of the tank room wall. due to the limited access and concerns for undermining the tank supports, no excavation work will take place within the tank room.

09/08/14–Hiralkumar Patel. 3:52 PM:– sent email to Al. informed him that the work plan looks ok and asked to submit work schedule.

11/13/14–Hiralkumar Patel. 1:49 PM:– spoke with Al. he mentioned that remedial work has not been conducted yet. 1:51 PM:– left message for Mr. Melohn. 1:56 PM:– left message for Mr. Osorio.

11/17/14–Hiralkumar Patel. 9:27 AM:– left message for Mr. Melohn. 9:28 AM:– left message for Mr. Osorio. 10:46 AM:– received call from Mr. Osorio. he is monitoring the boiler room sump and has not seen anymore product. he will asked Mr. Melohn to call back regarding soil excavation in boiler room.

01/06/15–Hiralkumar Patel. 1:03 PM:– received email from Al. he mentioned that contractor (American Environmental Assessment Corp) has scheduled to begin remedial excavation on 02/02/15, after getting necessary permits.

01/30/15–Hiralkumar Patel. 12:20 PM:– received email from Al. due to projected snow storm, remedial work has been postponed.

02/03/15–Hiralkumar Patel. 4:00 PM:– received email from Al. contractor will start field work tomorrow.

02/05/15–Hiralkumar Patel. 2:34 PM:– received email from Al. due to suspended alternate side parking (due to snow piles on street), crew can not find space to park their equipment. they will try to start project next week, if parking available.

03/19/15–Hiralkumar Patel. 2:56 PM:– received email from Al. he mentioned that excavation was completed on 02/13/15 and endpoint samples were collected. they have started backfilling using some of the boulders from the excavation. two separate recovery trenches will be installed in excavation.

07/14/15–Hiralkumar Patel. 2:57 PM:– received email from Al including remediation report. abstract: – total of 35.52 tons of impacted soil was excavated from boiler room – found shallow water table (1–2 ft below floor) – total of 12,717 gal of water/oil mixture pumped out of the excavation – impacted soil was excavated down to bedrock in an area of approx. 27 ft in length by 15 to 22 ft in width and ranging in depths from approx. 1 to 3 ft – during excavation, numerous large boulders were encountered that were removed from the excavation and used for backfilling – due to the presence of bedrock, no bottom samples could be collected – total of six endpoint sidewall samples were collected, from just above the bedrock ranging in depths from 20 to 32 inches – due to site constraints, the excavation was limited to the west due to the boiler, to the east to allow access to the stairs and the mechanical room, and to the south due to underground utilities – areas immediately surrounding building footers could not be excavated – a recovery trench was installed in two section due to the presence of a subsurface wall/structure (possible remnants of old coal storage bin) – one section of the recovery trench included one 24 inch diameter sump set at a depth of 33 inches and connected to two 4 inch diameter horizontal drainage pipes measuring approx. 7 ft and 10 ft in length – second section of the recovery trench included one 24 inch diameter sump connected to one 4 inch diameter horizontal drainage pipe, approx. 7 ft in length – due to very shallow bedrock on the northwest corner of the excavation, the horizontal drainage pipe in second section of the trench system was angled further to the east – each horizontal drainage pipe included a cleanout port – recovery sumps and cleanout ports were monitored on Apr. 30, May 30 and Jun 22, 2015 – neither floating product

nor an oil sheen were detected during the three monitoring events – found some contamination in endpoint sidewall samples
soil analyticals:

-----EP-2-----EP-3-----EP-4-----EP-5-----EP-6

25 in.

28 in.

24 in.

24 in.

| | | | | | |
|------------------------|-----------------|------------------|-----------------|------------------|------------------|
| 32 in. Toluene | ----- | ----- | ----- | ----- | ----- |
| Ethylbenzene | -----121----- | -----4,680----- | -----668----- | -----385----- | -----711----- |
| Xylene | -----1,770----- | -----24,200----- | -----1,570----- | -----2,990----- | -----3,870----- |
| 1,2,4-Trimethylbenzene | -----8,170----- | -----44,800----- | -----6,940----- | -----10,300----- | -----15,000----- |
| 1,3,5-Trimethylbenzene | -----3,220----- | -----13,800----- | -----2,530----- | -----5,190----- | -----5,180----- |
| Naphthalene | ----- | -----4,120----- | -----808----- | -----869----- | -----1,870----- |

07/23/15–Hiralkumar Patel. 1:53 PM:– sent letter to Mr. Melohn requiring monthly monitoring and quarterly sampling of recovery trench sumps, for a minimum of one year. asked him to submit quarterly reports, with first report due on 11/20/15. letter emailed to Mr. Melohn, AI, Thomas Lobasso (tlobasso@sovcon.com), Barry Goldberg (bgoldberg@melohnprop.com), Amir Kornblum (ak@themelohngroup.com), Jean McCreary (JMcCreary@nixonpeabody.com) and Jesse Hiney (jhiney@nixonpeabody.com).

11/30/15–Hiralkumar Patel. 3:38 PM:– received email from AI including first quarterly report. two trench sumps were gauged monthly. no LNAPL was detected during the three gauging events. groundwater samples were collected from two sumps on 10/09/15. no contamination noted in groundwater samples. next sampling will occur in Jan. 2016.

02/03/16–Hiralkumar Patel. received email from AI (at 1:03 PM on 02/02/16) including quarterly report and closure request. two remedial trench sumps were gauged on 11/06/15, 12/04/15 and 01/08/16. no LNAPL was detected in the sumps. groundwater samples from two sumps were collected on 01/08/16. no contamination noted in groundwater samples.

reviewed remediation report again and noted below: – six endpoint samples were collected individually on separate dates between 02/24/15 and 03/12/15 – neither floating product nor an oil sheen were detected in the sumps and cleanout ports during three monthly site visits in Apr., May and Jun. 2015

after receiving remediation report, the department sent letter in Jul. 2015 requiring monthly monitoring and quarterly sampling of recovery trench sumps. the sumps were monitored monthly between Aug. 2015 and Jan. 2016.

after reviewing available information, case closed based on following: – remediation conducted at the site (soil excavation in Feb./Mar. 2015) – results of monthly monitoring of the recovery trench sumps for almost a year (Apr. 2015 to Jan. 2016) – two quarterly groundwater sampling results (Oct. 2015 and Jan. 2016)

9:58 AM:-- sent spill closure letter to Mr. Melohn. letter emailed to Mr. Melohn and Al.

Map Identification Number 192

MANHOLE # 49901

Spill Number: 0411668

Close Date: 06/06/2005



W 84 ST / WEST END AVE

MANHATTAN, NY

TT-Id: 520A-0098-433

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 2039 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: WEST END AVE / W 84TH ST
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Other
 Caller Name: PIROPATO,MARK
 DEC Investigator: GDBREEN

Spiller: UNKNOWN
 Notifier Name: PIROPATO,MARK
 Caller Agency: CON-ED
 Contact for more spill info: ERT DESK

Spiller Phone:
 Notifier Phone: (212) 580-8383
 Caller Phone: (212) 580-8383
 Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/31/2005 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

No to 5 questions. See 157036.

DEC Investigator Remarks:

157036. On 1/31/05 at 20:21 K. Ferraro # 06749 #9 Supervisor called to report that at 20:15 he discovered 1 pt. of an unknown oil mixed with 25 gallons of water in manhole-49901. this structure is located at SEC W. 84 St & west End Ave. He was there because there was an emergency in the next structure & was going to run cable from this structure to that one. He was working on acct # f3445. There was no sewers or waterways affected. No fire or smoke was involved in this structure. no private property was affected. The cause & source of the oil is unknown. A spill tag # 38849 was hung & 2 samples were taken 1 for pcb & 1 for ID with a chain of custody # DD-07868. This will not be a 24 hr spill due to storm emergencies tying up crews & equipment. 1/31/05 20:48 CIG C. Shikarides # 84546 was notified. R. Bruns # 21106

1/31/05 23:47 Received lab results, Lab Sequence Number: 05-00833-001 Oil Identification

----- Analysis indicates the presence of a cable oil.

2/1/05 03:19 Received lab results, Lab Sequence Number: 05-00834-001 TEST DESCRIPTION RESULT UNIT METHOD

----- PCB Analysis by EPA 608/8082
 ----- Aroclor 1242 < 1.0 ppm EPA 608/8082
 ----- Aroclor 1254 < 1.0 ppm EPA 608/8082 Aroclor 1248 < 1.0 ppm EPA 608/8082 Aroclor 1260 < 1.0 ppm EPA 608/8082

3/1 @ 20:38 Cleanup completed on 3/30 @ 12:30 Two bags of Solid waste consisting of PPE & rags and matting, arms and PC joints
 Liquid waste removed – three gallons of oil 40 gallons of water and 50 gallons of mixed with rinse water by the Vactor Truck. The structure was double-washed with SLIX , washed floor, walls and crabs. Environmental tag # 38849 was removed

4/1 @ 20:50 There was no visible sign of the source – possibly thru ducts or third party spill into manhole

Update: 4/20/05 @ 08:26 Correction to update 3/1 @ 20:38 should read 4/1 @ 20:38 and cleanup completed on 3/30/05.

Map Identification Number 193

COMMERCIAL PROPERTY/APT BLDG

Spill Number: 0906140

Close Date: 11/04/2013



30 WEST 70TH ST

MANHATTAN, NY

TT-Id: 520A-0232-118

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2045 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Other
 Caller Name:
 DEC Investigator: adzhitom

Spiller: SCOTT FOLGELBERG – ESTATE
 Notifier Name:
 Caller Agency:
 Contact for more spill info: MIKE DINGER

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (201) 984-3652

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 08/20/2009 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | |

Caller Remarks:

CALLER STATES THAT DUE A FAILED UNREGISTERED TANK AN UNK AMOUNT OF PRODUCT SPILLED TO THE BASEMENT CLEAN UP WAS NOT DONE.

DEC Investigator Remarks:

Sangesland spoke to an attorney for a potential purchaser of this apartment building. There is a 5,000 gal tank (size?) that is NOT PBS registered. There is also signs of leaking in the basement. The building is being sold and the purchaser would like to have all of the legal/environmental issues cleared up before the sale goes through. Sangesland left a voice message with Mr. Scott Folgelberg asking for more information about the spill (unknown if he is an owner or manager of the building). Find and owner/manager and send a TTF/CSL letter to them.

According to the building superintendent, a spill of No. 4 fuel oil occurred on the subject property approximately 10 years ago as a result of an overflow and possible rupture of aboveground piping within the aboveground storage tank (AST) vault located within the basement / sub-basement area of the building. The fill pipe had been repaired subsequent to that release and there were no indications of a more recent/current release. The oil was recovered from the basement boiler room area as well as the AST vault immediately following the release. Initially, a spill was not reported to the New York State Department of Environmental Conservation (NYSDEC).

The cause of the historical release is believed to be the reported failure of the remote fill pipe during a delivery of oil a number of years ago. The fill pipe had been repaired subsequent to that release and there were no indications

On August 19, 2009, Commercial Assessments performed a Phase I Environmental Assessment at the subject property. During the performance of the Phase I free product oil was observed on the floor of the boiler room, within the sump pit and emanating from the lower portion of the basement wall immediately beneath the AST vault. The sump pit reportedly discharges to the New York City sanitary sewer system.

On Thursday September 3, 2009, Partner conducted a Phase II Subsurface Investigation. The investigation scope included six soil borings (B1 through B6). Borings B1 through B4 were advanced in the boiler room area and borings B5 and B6 were advanced in the AST vault area. Borings B1 through B4 and boring B6 were advanced approximately 6-inches below the base of the concrete floor, at which point refusal was encountered. Boring B5 was advanced to a depth of approximately 5 feet below the surface at which bedrock was encountered.

Groundwater and free product was identified a top the bedrock in borings B1 through B4. No groundwater or free product was identified in either boring B5 or B6 with the thickest accumulations identified in boring B4.

Partner collected 6 soil samples on September 3, 2009; however, based on visual observations and the presence of free product only two samples B1 and B6 were analyzed for VOC's and SVOC's. The analytical results indicate that none of the analyzed soil samples had detectable concentrations of VOC's and SVOC's. All detected concentrations were below the regulatory guidelines.

A letter was sent to Scott Fogelberg from Commmerical Assessment on September 21,2009 requesting the following: 1.- Delineation of soil and groundwater contamination via determination of groundwater flow direction. 2.- Implementation of interim remedial measures if free product is present in the sump. 3.- submission of a surrounding area site map and former/current locations of

all ASTs.

Partner Engineering and Science sent the proposal for remedial action dated 10/02/2009. The scope of work include the installation of several piezometers at the boring locations.

Partner Engineering and Science sent the Supplemental Investigation Report and Proposal Remedial Action Work Plan dated July 30,2010. Partner conducted a Supplemental Investigation to determine the status of the residual oil observed in the AST vault and boiler room locations.

Six (6) additional shallow borings V1 through V6 were advanced through the concrete floor on May 25, 2010 to evaluate the extent of the release. The original scope of work was to include the installation of several piezometers at the boring locations; however, no piezometers were installed during the investigation as drilling refusal (bedrock) was encountered at depths of eight inches or less, making piezometer installation impractical.

In addition, three horizontal borings H1,H2,H3 were advanced through the wall separating the boiler room from the AST vault to a maximum depth of penetration of approximately 18 inches. The locations were selected to correspond to previously observed locations of oil staining / oil permeation of the masonry materials .

Oil was observed in four of the six shallow borings which coincided with elevated PID readings. At the time of the investigation, oil was again observed to be seeping from the base of the AST vault wall and through the brick at one location along the wall.

3-3-2011 The spill was reassigned to AZ as per V. Brevdo. AZ

3-3-2011 Contacted David Umbach ph. 201-335-0149. They installed a sump pump, around 20 weep holes, and one trench to collect the free phase product. They are using recirculation pump to pump from the lower level of the boiler up into a tank vault and then the water comes down the wall behind the tank and into the weep holes. They collecting water and oil. They recovered about 110-120 gal of free product by now. I requested submittal of quarterly progress reports. I requested separate measurements of water and product. AZ

10-12-2011 David Umbach contacted me and asked for an approval of a WP submitted in 2010 to S. Sangesland. I asked him to send me an installation report and a status report. The system is offline since March 2011 due to contract negotiations. AZ

11-10-2011 Remedial Action update was received by DEC. Oil was observed to be leaching through the tank vault wall and onto the boiler room floor at 30 W 70th Street. In 2009 borings were advanced within the vault and through the boiler room floor. Oil was present in soil samples from borings advanced through the boiler room floor and visual observations of oil seeps through the wall separating the AST vault and boiler room and oil permeation of the masonry materials along the wall. The cause of the release is believed to be the reported historical failure of the remote fill pipe during a delivery of oil. The fill pipe had been repaired subsequent to that release.

Partner retained a contractor on behalf of Fine Times Inc. to cut and excavate a narrow trench along the base of the wall separating the AST vault and boiler room. The trench was installed on either side of a concrete block pier located beneath the door to the AST vault along a path that will intercept the current oil seep and other areas where site observations (e.g., oil staining of the wall) indicate oil is trapped. A shallow sump / pit was installed so as to enable the trenches to drain to the sump under the influence of a low-flow pump. The pump is used to remove perched water and recirculate it above and behind the

wall of the AST vault to help induce the flow and capture of oil by the underlying trench. A second automated free product recovery pump system which tracks and follows water level elevation changes within the sump removes accumulating oil directly to a holding tank for future disposal. The system was completed and readied for operation in January of 2011.

To date, a total of three 55 gallon drums of oil contaminated soil and concrete have been collected and disposed of which were generated during the system installation process. Additionally, a total of five 55 gallon drums of mixed oil and water have been collected and disposed of to date which were also accumulated during the system installation and start up operations.

After the system is up and running, a surfactant solution can be used to amend the re-circulated water stream to help flush out additional oil trapped beneath the AST vault and behind the wall. As remediation progresses, a bioremediation amendment solution will be used to help enhance the biodegradation of residual oil that remains trapped behind the wall but which continues to resist removal by flushing. System operation parameters will be determined by trial and observation over the first 1–2 months of operation and will be adjusted to optimize removal by Partner personnel on site as conditions warrant. Quarterly reports will be provided to document the volume of water treated and volume of oil collected as the system is in operation. AZ

8–20–2012 A status report for the 2nd quarter of 2012 was received and e-doc'ed. Currently, the system is processing approximately 1,200 gallons of water per day, at an average of 0.83 gallons per minute, (gpm) or approximately 50 gallons per hour (gph). This calculation estimates the volume of water treated during the second quarter at 109,200 gallons. No measurable quantity of free product has been recovered during the second quarter of 2012.

During August 2012, a bioremediation amendment solution will be used to help enhance the biodegradation of residual oil that remains trapped behind the wall but which continues to resist removal by flushing. System influent water samples will be collected for volatile organic compounds (VOCs) analysis by NYS Stars List (SW846/8260) and semi-volatile organic compounds (SVOCs) analysis by NYS Stars List (SW846/8270C) at the end of the second quarter to determine the effectiveness of the treatment. AZ

1–11–2013 Received a quarterly report dated October 20, 2012. No e-copy was attached. Left a message asking for the electronic copy. During August 2012, a bioremediation amendment solution was added to help remediation of residual oil that remains trapped behind the wall. The system is processing approximately 1,100 gallons of water per day. AZ

9–20–2013 Received a quarterly report dated June 14, 2013. No e-copy was attached. Left a message for David Umbach at 732–380–1700 #1255. The report stated that a spill of undetermined volume of fuel oil occurred on the property in approximately 1999. The spill was a result of overfill and possible failure of aboveground piping within AST vault room located within the basement of the building. Partner cut and excavated a narrow interceptor trench through the concrete floor. The trench was intended to intercept the oil seeping from behind the AST tank vault and facilitate flow and capture of perched water and oil. A shallow pump was constructed to facilitate drainage. The system was completed in 2011. A total of three 55 gallon drums of oil contaminated soil and concrete and five 55 gallon drums of mixed oil and water were generated and disposed off-site. The calculated total volume of water treated in four quarters of system operation is estimated at 436,800 gallons. During August 2012, a bioremediation solution was added to help enhance the biodegradation of residual oil. Influent water sample was collected in November 2012. NO VOCs or SVOCs were detected. Additional sheen and/or oil globules are not present.

DEC comments: no historical free phase table was submitted, when free phase was present last time in the sump pump? No e-copy was submitted to DEC. AZ

9-23-2013 Spoke with David Umbach. Conveyed DEC's concerns. He will submit requested info. AZ

10-22-2013 Left a message for David Umbach 732-380-1700 ext.1255. No e-copy was submitted to DEC. AZ

10-25-2013 Discussed the site with David Umbach. Partner submitted 4 reports for the site and a separate table with the historical product thickness data. They will combine all reports in one and include the historical product thickness table. The report will be re-submitted. AZ

10-30-2013 A spill of undetermined volume of fuel oil occurred on the property in approximately 1999. The spill was a result of overfill and possible failure of aboveground piping within AST vault room located within the basement of the building. Partner cut and excavated a narrow interceptor trench through the concrete floor. The trench was intended to intercept the oil seeping from behind the AST tank vault and facilitate flow and capture of perched water and oil. A shallow pump was constructed to facilitate drainage. The system was completed in 2011. A total of three 55 gallon drums of oil contaminated soil and concrete and five 55 gallon drums of mixed oil and water were generated and disposed off-site. The calculated total volume of water treated in four quarters of system operation is estimated at 436,800 gallons. During August 2012, a bioremediation solution was added to help enhance the biodegradation of residual oil. Last two sampling events in July and November of 2012 of the influent water samples detected no Volatile or Semi-Volatile compounds above MDL. Oil sheen and/or oil globules were absent within the sump pump since April 2012. No oil was leaching through the boiler room wall. Based on this information this spill is closed. AZ

11-4-2013 The following e-mail was sent to David Umbach (Partner Engineering and Science, Inc):

Dear David,

I have reviewed a Remedial Action Summary Report dated October 28, 2013. The report states that a spill of undetermined volume of fuel oil occurred on the property in approximately 1999. The spill was a result of overfill and possible failure of aboveground piping within the aboveground storage tank (AST) vault room, located within the basement area of the building.

A narrow interceptor trench was cut and excavated through the concrete floor. along the base of the wall separating the AST vault and boiler room. The trench was intended to intercept the oil seeping from behind the AST tank vault. Also, the trench facilitated flow and capture of perched water and oil. A shallow pump was constructed to improve drainage. The system was completed in 2011.

A total of three 55 gallon drums of oil contaminated soil and concrete, and five 55 gallon drums of mixed oil and water were generated and disposed off-site.

The calculated total volume of water treated in four quarters of system operation is estimated at 436,800 gallons. During August 2012, a bioremediation amendment solution was added to help enhance the biodegradation of residual oil.

Confirmatory system water samples were collected for Volatile Organic Compounds (VOCs) and semi-volatile organic compounds (SVOCs) analysis. No VOCs or SVOCs were detected above MDL. Oil sheen and/or oil globules were absent within the sump pump since April 2012. No oil was leaching through the boiler room wall.

Based on this information this spill is closed.

The Department hereby reserves all of its rights concerning, and such forbearance shall not extend to, any further investigation or remedial action the Department deems necessary due to:

- I. The off-site migration of petroleum contaminants that was unknown at the time of this closure.
- II. Environmental conditions related to this spill case which were unknown to the Department at the time of this closure.
- III. Information received, in whole or part, after the Department's spill case closure, which indicates that corrective action was not sufficiently protective of human health and/or the environment.
- IV. Fraud in obtaining this spill case closure determination.

As a precaution, we must bring your attention to our concerns for the future use of this site. If subsurface contamination is encountered while excavating for any construction activity, appropriate remedial and vapor mitigation efforts must be taken to fully prevent vapor intrusion into any site development and to ensure human health and safety. This spill closure does not exempt the Responsible Parties from compliance with any applicable laws and regulations.

Please be advised that you should maintain a permanent file of all documentation and correspondence regarding this case for future use as the Department's files may not be maintained indefinitely.

Sincerely,

Alex Zhitomirsky

Map Identification Number 194



MANHOLE TM-1549

IFO 154 W70TH ST

MANHATTAN, NY

Spill Number: 9912234

Close Date: 11/15/2004

TT-Id: 520A-0095-280

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
Approximate distance from property: 2067 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: IFO 154 W 70TH ST
Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
Notifier Type: Affected Persons
Caller Name: BILL MURPHY
DEC Investigator: JHOCONN

Spiller: UNKNOWN
Notifier Name: MR CARROLL
Caller Agency: CON EDISON
Contact for more spill info: BILL MURPHY

Spiller Phone:
Notifier Phone: (212) 580-6763
Caller Phone: (212) 580-6763
Contact Person Phone: (212) 580-6763

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/24/2000 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM | 5.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

5 GALLONS ON 495 GALLONS OF WATER. REF #129725 – SAMPLE TAKEN CLEANUP PENDING TEST RESULTS

DEC Investigator Remarks:

e2mis no. 129725:

01/24/10:35 Joseph Picac # 66214, Troubleshooter, found 5 gals. on 495 gals of water in tm1549 f.o 1549 W.70 st. while on inspection. Spill did not enter the waterway or sewer system. Sample was taken for pcb count & id. Sign # 27276 was installed. Clean up pending lab results, clean will be made by I&A North.

01/25/00 14:46 Received lab results, lab sequence # 00-00736 Aroclor – none, PCB – <1.00 ppm

1/26/00 07:00 Russel I&A reports cleanup completed on midnight shift with tanker and flush truck. Transformer checked, no leak. Removed 500 gal water from structure via tanker. Clean structure with flush truck. Envio tag # 27276 removed.

Map Identification Number 195

VAULT #V1826

Spill Number: 0401745

Close Date: 09/07/2004



WEST 72ND STREET

MANHATTAN, NY

TT-Id: 520A-0093-114

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2101 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: 253 W 72ND ST
 Revised zip code: 10023

Source of Spill: UNKNOWN
 Notifier Type: Responsible Party
 Caller Name: CHRIS SHIKARIVES
 DEC Investigator: JHOCONNE

Spiller: ERT DESK – CON ED
 Notifier Name: CHRIS SHIKARIVES
 Caller Agency: CON ED
 Contact for more spill info: ERT DESK

Spiller Phone: (212) 580-8383
 Notifier Phone: (212) 580-5673
 Caller Phone: (212) 580-5673
 Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
|-------------------|---------------------|----------------|-------------------------|--------|---------------------|--------|----------------------|
| 05/18/2004 | | UNKNOWN | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | | PETROLEUM | 0 | POUNDS | 0 | POUNDS | SOIL |

Caller Remarks:

15 GALLONS OF OIL MIXED WITH SOIL NO WATER , IS A SEWER IN VAULT BUT UNKNOWN IF IT HAS REACH ED , CLEAN UP IS PENDING:

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL e2mis no. 153431:

approx. 15 gallons of oil mixed with soil. There is no water in V1826. A.Figueroe #84445 said there is a sewer in V1826, but it is unknown at this time if there has been any release to the sewer. There is no cleanup action being taken at this time. The cleanup is pending.

R.RUSSELL#10177 splicer, took a sample from the trap in V1826 and saw no visual sign of oil in the drain. The chain of custody #DD03262. R.Russell#10177 thinks it could be a possible bottom leak.

T.Coghlan notified the control center that it is a drain, not a sewer in V1826.

Lab Sequence Number: 04-03803-001: TOTAL PCB 5 ppm

Lab Sequence Number: 04-03808-001: Analysis indicates the presence of a substance similar to a dielectric fluid.

Update :19:00 hrs 05/18/04 L.Leardi reports that Partial clean up complete in V1826, Tanker took on 391 gallons of oil from unit. Oil absorbant has been put down, final clean up pending removal of transformer.

5/27 @ 05:50 V Mirance # 58484 of Cable reported to me that the cleanup completed as of 05:0. No solids were removed and all liquids were removed by the Vactor truck. The structure was double-washed with SLIX . The source of the spill was the Transformer and it has been removed and replaced.

Map Identification Number 196



THE ORMANDE
2030 BROADWAY
NEW YORK, NY

NEW YORK, NY 10023

Spill Number: 1206031

Close Date: 10/23/2012
TT-Id: 520A-0278-032

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 2116 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
Notifier Type: Affected Persons
Caller Name:
DEC Investigator: HRPATEL

Spiller: the ormande
Notifier Name:
Caller Agency:
Contact for more spill info:

Spiller Phone:
Notifier Phone:
Caller Phone:
Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
|------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 09/18/2012 | | OTHER | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | INDOOR AIR |

Caller Remarks:

Caller claims that landlord removed tank(s) and there has been a chronic petroleum odor in his store. He requests that somebody from DEC meet him at 10 AM because that is when his store opens. Ask for Joseph Arabian. cell:(917)741-5968. Landline:(212)382-2760.

DEC Investigator Remarks:

PBS#2-606183. According to the registration information: One 5,000 gallon AST storing #2 fuel oil was in-service at the facility and was closed on 6/26/2012. Registration expiration date:3/27/2017.

Caller claims that he called Spills Hotline and they referred him to me.

Spill assigned to T. Demeo as directed by R. Austin.

10/23/12-Hiralkumar Patel. case re-assigned to DEC Patel as investigating same problem under spill #: 1203045.

case closed. refer to spill #: 1203045 for more details.

Map Identification Number 197 **319 WEST 77TH STREET.**
 319 WEST 77TH STREET.

MANHATTAN, NY

Spill Number: 9310521

Close Date: 11/30/1993
 TT-Id: 520A-0092-011

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2121 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Other
 Caller Name: VIRGINIA SOVIERO
 DEC Investigator: KSTANG

Spiller: UNK
 Notifier Name:
 Caller Agency: PETRO
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone: (718) 545-3662
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 11/30/1993 | 11/30/1993 | UNKNOWN | UNKNOWN | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | -1.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

SPILL CONTAINED AT FILL BOX - DRIVER DID CLEAN UP.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TANG

Map Identification Number 198 **100 WEST 89TH ST/MANH**
 100 WEST 89TH STREET

NEW YORK, NY

Spill Number: 9004060

Close Date: 07/16/1990
 TT-Id: 520A-0101-158

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2129 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|------------------------------|-------------------------------|
| Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER | Spiller: | Spiller Phone: (212) 769-2100 |
| Notifier Type: Affected Persons | Notifier Name: | Notifier Phone: |
| Caller Name: RAY RISO | Caller Agency: BUILDER | Caller Phone: (718) 229-4300 |
| DEC Investigator: KSTANG | Contact for more spill info: | Contact Person Phone: |

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 07/11/1990 | 07/16/1990 | UNKNOWN | UNKNOWN | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM | -1.00 | UNKNOWN | 0.00 | UNKNOWN | SEWER |

Caller Remarks:

FUEL ODOR NOTICED IN BASEMENT, NYC FD RESPONDED, FOAMED SEWAGE EJECTION PIT, FUEL STILL IN PIT, NYC DEP NOTIFIED, COULD BE FUEL OIL IN GROUNDWATER, LEAKING UNDER BUILDING INTO EJECTOR PIT.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TANG

| | | | | |
|--|-------------------------|---------------|------------------------------|-------------------------------|
| Map Identification Number 199 | MANHOLE 61729 | | Spill Number: 9912170 | Close Date: 11/15/2004 |
|  | WEST END AV / W 85TH ST | MANHATTAN, NY | | TT-Id: 520A-0102-513 |

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 2163 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: WEST END AVE / W 85TH ST
 Revised zip code: 10024

| | | |
|--|------------------------------|--------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: CON EDISON | Spiller Phone: |
| Notifier Type: Responsible Party | Notifier Name: COOK | Notifier Phone: (212) 580-6763 |
| Caller Name: MIKE CESARE | Caller Agency: CON EDISON | Caller Phone: (212) 580-6763 |
| DEC Investigator: JHOCONNE | Contact for more spill info: | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/21/2000 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN NON-PETRO/NON-HAZ MATERIAL | OTHER | 60.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

ON 1000GAL OF WATER – SAMPLE TO BE TAKEN – CASE #129704

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL

1/21/00, 3:10 PM – spoke with ERT Stan Piczsatowski – asked him to have Joe Arcoleo (on-scene ERT) call me.

3:45 PM – Over 50 tanker on-site. Estimate of oil amount made visually – approximatley 1 of oil on 1 foot of water at bottom of manhole. (JHO)

~~~~~ e2mis no. 129704:

On 1/21/00 Senior Elec. Tech. F. Henry(21147) and R. Coletti (49504) of Corrosion Survey

Central Gas Operations were on a Periodic inspection for cathodic protection for FDR M51/M52 and discovered 60 gallons of unknown old oil on top of 1000 gallons of water inside mh 61729. This is an underground structure and containment is not known at the present time. No samples were taken at the present time. Corrosion Techs are on stand by to be relieved by UT crew.

DEC 99-12170. Con Ed transportation called for over 50 ppm PCB tanker to pump out manhole. Chem lab notified to take samples. Temp EPA ID # NYP004049011 received from ERT for pumpout of manhole by Con Ed tanker assuming 50-499 ppm PCBs. At 14:10 Vac Trucks dispatched from Corp Trans to pump out manhole. Clean Harbors notified to respond and clean out manhole and treat as 50-499 since PCB results are unknown at this time. Con Ed tanker sent back empty. At approx 15:00 Stan Baldwin (NYCDEP) was on job site and he left at 16:00. Clean Harbors on site and Manhole pumped and double washed. Joe Arcoleo on site. Chem lab reports 00-00669 <1.00 ppm PCB. Clean Harbors given lab result and released from job site. They removed 1200 gallons of liquid from manhole. At 10:00 1/22/00 manhole was checked by TO crew – no sign of leak was found.

**Map Identification Number 200**

**MAN HOLE #61729**

**Spill Number: 9811082**

**Close Date: 11/04/2003**

WEST END AV & W 85TH ST

MANHATTAN, NY

TT-Id: 520A-0102-512

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 2163 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: WEST END AVE / W 85TH ST  
 Revised zip code: 10024

Source of Spill: UNKNOWN  
 Notifier Type: Other  
 Caller Name: FRANK MASSERIA  
 DEC Investigator: CAENGELH

Spiller: Unnown  
 Notifier Name: MR COOKE  
 Caller Agency: CON EDISON  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (212) 580-6763  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 12/03/1998 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DEBRIS            | OTHER          | 0                | GALLONS | 0                  | GALLONS | SOIL                 |
| UNKNOWN PETROLEUM | PETROLEUM      | 6.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

CON ED #121680 DEBRIS AND OIL ON TOP OF 750 GALLONS OF WATER. SAMPLE HAS NOT BEEN TAKEN. WAITING FOR A CREW TO TAKE SAMPLES. CLEAN UP PENDING RESULTS.

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was ENGELHARDT E2MIS 121680

Logger : Louis Cook (15851) Date: 12/3/98 Description: On 12/3/98 Senior Elec. Tech. R. Dayton (05458) and B. Ciruzzi (02192) of Corrosion Survey Central Gas Operations were on a visual inspection of manholes for potential leaks on FDR M51/M52 an discovered 6 gallons of unknown oil and solid debris on top of 750 water inside mh 61729. The Techs are standing by the mh until a crew U.T. relieves them They noted that the oil is contained and did not enter any sewers or waterways. No sample was taken.

REFERRED TO S&TO THROUGH EMAIL NOTIFICATION.

DEC #98-11082. Samples taken by chem lab. Waiman Wong (DEP) on location at approx 17:00. He demanded a sample to be taken from the manhole . Sample given to him. CGO crew on location to standby until relieved by TO crew. Chem lab results 98-13414 <1.0 ppm

PCBs Clean Harbors reported to location and cleaned manhole by solidifying liquids (estimated at less than 100 gallons total), and vacuuming up all solids in manhole. Clean up completed at 01:00 12/4/98. Clean Harbors removed estimated 10,000 pounds of debris from manhole. ERT notified. VS 78367

UPDATE: Entered by Alice F. Williams – Employee # 75829 on December 4, 1998 at 07:48:00 LARGE OIL SPILL Con Edison Incident No. 121680 CLEANUP CHECKLIST NYSDEC Spill No. 98–11082 Hard Copy File Location \_\_\_\_\_ Name of person completing checklist: VERNON SCHAEFER Con Edison Operating Department responsible for spill cleanup: T/O (1) A large oil spill is a spill of oil containing less than 50 ppm PCBs that: ? Does not meet the criteria for a de minimis spill; ? Is not totally contained in an impervious structure, such as a manhole, vault, or moat, and Environmental Detailed Incident Report E2MIS 13–OCT–2003 10:14:46 Page 3 of 6 ? Does not meet at least one of the following criteria: ? No sewer or waterway is affected, and ? No private property is affected, and ? No personal injuries are involved, and ? Cleanup is completed within 72 hours of the spill discovery, and ? Less than 50 gallons of oil, petroleum product of any kind, or dielectric fluid is spilled. (2) Material spilled/discovered: Oil (type); PCB concentration: less than 50 ppm; known / unknown. X Dielectric fluid; PCB concentration: less than 50 ppm; known / unknown. If unknown PCB concentration, was sample collected? Yes No (3) Sample submitted for analysis? X YES Sample ID No. 98–13414 No For what parameters? X PCB – X BENZENE Copy of chain of custody form attached? Yes X NO (4) Amount spilled/discovered: 6 GALLONS If leak/spill is continuing, rate N/A (5) When was spill discovered? Date: 12/03/98 Time : 12:30 (6) Location of spill. (Be as precise as possible. Include cross streets, manhole numbers, equipment box numbers, etc., as appropriate.) MANHOLE 61729 – WEST END AVENUE S/O 86TH STREET 0 Sketch attached (7) Source/cause of spill. (Be as precise as possible. Include equipment numbers, if possible.) OLD OIL IN MANHOLE 0 Unknown (8) Description of area affected by spill (include dimensions as appropriate) MANHOLE ONLY Sketch drawn? Yes No (9) Was sewer or waterway affected? Yes Location X NO If yes, amount of spill in/on sewer/water Known Estimated (10) Was boom deployed? Yes Absorbent or Containment (circle one) X NO By whom? Con Edison Contractor (11) Containment/Cleanup Activities (per GEI 2.11, 2.13, 2.16, 3.2, or 3.3) Sketches attached. Tightened valve. Placed drip plan. Sealed leak. Blocked nearby sewers/drains with spill kits. Removed/recovered liquid/solids. X Used absorbents to remove residual fluids. Removed contaminated vegetation. Removed visible traces of oil. X Washed stained areas. Excavated contaminated soil, bluestone. Other See attached contractor report. (12) Identify who performed cleanup:

Con Edison personnel/department? X Name of contractor: CLEAN HARBORS Contractor report attached. (13) Con Edison personnel directing cleanup: CARRILLO (14) Were emergency discharge permits obtained to perform cleanup? Yes X NO If yes, identify permit type(s) and number(s) Copy attached (15) Estimated amounts/types of wastes generated. Recovered oil amount Recovered fluids/solids amount Recovered oil/water amount Excavated soil/bluestone amount X Recovered sludge/debris 10,000 LBS amount Used absorbents amount Other amount Manifests/shipping papers attached? X YES No (16) Were post–cleanup samples collected? Yes X NO Describe Sketch attached? Yes No (17) Were soil borings wells installed? Logs Attached Describe visual observations Sketch attached? Yes No Samples sent for analyses Yes Sample ID No. No For what parameters? Chain of custody form attached? Yes No (18) Were photographs taken: of the spill? Yes Attached X NO of cleanup activities? Yes Attached X NO of post–cleanup conditions? Yes Attached X NO (19) Was videotape taken of affected private property, cleanup activities, and post–cleanup condition? Yes Attached No (20) Cleanup completed on Date: 12/04/98 Time: 01:00 (21) Spill Cleanup Resolution: Was written/oral resolution provided to Con Edison by regulatory agency? Yes X NO If not, identity of Con Edison employee affirming that spill was cleaned up as indicated herein. (Signature) : VERNON SCHAEFER Name (Print) VERNON SCHAEFER (Title/Department) : SUPERVISOR – TRANSMISSION OPERATIONS (22) Were regulatory agency/public officials/emergency officials at the spill scene? Yes No Name Affiliation ID No. Arrived (date/time) Departed (date/time)

WAI MAN WONG – DEP 17:00 18:00 (23) Were directives given to Con Edison personnel? X WRITTEN Oral None By whom: WAI MAN WONG To Con Edison personnel: CGO CREW Describe: CLEAN ASAP Attached (24) Was resolution issued indicating spill was resolved? Written

Oral X NONE By whom To Con Edison personnel Describe Attached (25) Did media representatives visit spill scene? Yes\* X NO  
 Name Affiliation Arrived (date/time) Departed (date/time) \* Direct media representatives to Con Edison Public Affairs personnel.  
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Chem lab reports 98-13419 <1.0 ppb benzene.

**Map Identification Number 201** **91 CENTRAL PARK WEST** **Spill Number: 0308740** **Close Date: 12/22/2003**  
 11 WEST 69TH STREET MANHATTAN, NY TT-Id: 520A-0095-733

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2188 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                  |                                      |
|-----------------------------------|----------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: UNKNOWN                 | Spiller Phone:                       |
| Notifier Type: Other              | Notifier Name: MR PAGANO         | Notifier Phone: (212) 580-6763       |
| Caller Name: RON ELLIOT           | Caller Agency: CON EDISON        | Caller Phone: (212) 580-6763         |
| DEC Investigator: CESAWYER        | Contact for more spill info: ERT | Contact Person Phone: (212) 580-8383 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 11/17/2003 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 25.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

caller states spill from the oil delivery truck to one of the boxes - i/f/o the residence - spill is contained and cleaned  
 pending sample results - coned #151164

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SAWYER Related to previous spill - Sawyer is lead. (JHO)

~~~~~ Con Ed e2mis no. 151-164 notes: On11/17 @ 10:35 discovered in S-12582 approx 25 gallons of what is suspected as Heating fuel oil. It has an odor and the Bldg. Super reports to the Finder that a Fuel oil delivery was made a few days ago and a

spill occurred. This is a third party spill. Three samples will be taken for PCB, ID and flash point.

In addition this incident was discussed with ERT, Dan Pontecorvo at approx. 10:45 hrs. It was agreed that we should wait for sample results before we initiate the cleanup unless a governmental agency directs us to start the cleanup immediately. Since this is a third party spill we should submit the cleanup charges to the third party for reimbursement after the cleanup is completed.

Lab Sequence Number: 03-09326-001 Analysis indicates the presence of a substance similar to a light fuel oil. Lab Sequence Number: 03-09325-001 TOTAL PCB: 4 ppm Lab Sequence Number: 03-09325-002 Flash Point, PMCC > 140 deg F

12/01/03 Underground/cleanup supervisor called to report that the cleanup was completed at 13:10 There was 1 barrel filled with ppe & oily dirt generated as a result of this cleanup. The tanker removed 125 gallons of oil/water mixture. The structure was double washed with slix.

Map Identification Number 202 **216301; 321 W 82 ST AND RIVERSIDE DR** **Spill Number: 0914135** **Close Date: 05/06/2009**
 321 W 82 ST AND RIVERSIDE DR NEW YORK, NY TT-Id: 520A-0248-777

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2191 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: 321 W 82ND ST
 Revised zip code: 10024

| | | |
|--|---------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: ERT DESK – CON EDISON | Spiller Phone: |
| Notifier Type: Responsible Party | Notifier Name: | Notifier Phone: |
| Caller Name: | Caller Agency: | Caller Phone: |
| DEC Investigator: DMPOKRZY | Contact for more spill info: ERT DESK | Contact Person Phone: (212) 580-8383 |

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 04/07/2009 | | UNKNOWN | | | | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | UTILITY |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 203



VERIZON MANHOLE
WEST 87TH ST & BROADWAY

MANHATTAN, NY

Spill Number: 0809964

Close Date: 10/23/2009
TT-Id: 520A-0225-185

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
Approximate distance from property: 2195 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: W 87TH ST / BROADWAY
Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
Notifier Type: Other
Caller Name:
DEC Investigator: vszhune

Spiller: UNKNOWN
Notifier Name:
Caller Agency:
Contact for more spill info: JOE GIAMPAPA

Spiller Phone:
Notifier Phone:
Caller Phone:
Contact Person Phone: (646) 265-2279

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/05/2008 | | OTHER | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 5.00 | GALLONS | 0.00 | GALLONS | |

Caller Remarks:

3RD PARTY CALL FROM A VERIZON WORKER STATING THAT THERE IS ABOUT 5 GALLONS OF UNK PETROLEUM IN THE MANHOLE. CALLER STATES THAT HE NEEDS IT CLEANED SO HE CAN CONTINUE WORKING.

DEC Investigator Remarks: NOTE: These remarks are shorter than in the previously tracked spill

after 4PM on Friday – Off Hours

10/20/09– Zhune spoke to Joe Giampapa from Verizon (646)265-2279. He said that he did not remember been doing any job at west 87th st & Broadway. He said year ago they were doing work on west 187th st & Broadway. He asked me to call the Environmental people (Jamie Mcelman) 1800 386-9639.

10/20/09– Zhune spoke to Jamie 813-978-6965 from Environmental people he said that is going to search because a year ago he was not working with the Environmental Department.

10/23/09–Zhune. Spill cleaned. Minor spill. Spill closed

Map Identification Number 204 **98 RIVERSIDE DRIVE**
 98 RIVERSIDE DRIVE

NEW YORK, NY 10024

Spill Number: 9815515

Close Date: 04/10/2009
 TT-Id: 520A-0101-335

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2204 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
 Notifier Type: Other
 Caller Name: JOE OSTROWSKI
 DEC Investigator: SFRAHMAN

Spiller: M N RACOLIN MGT
 Notifier Name: /
 Caller Agency: A.L. EASTMAN & SONS, INC
 Contact for more spill info:

Spiller Phone:
 Notifier Phone: (914) 963-5160
 Caller Phone: (718) 378-3000
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 03/30/1999 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | PETROLEUM | 1000 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

2 7500 gal burried tanks – both tanks recieved an oil delivery at the same time – a short time later 1 tank indicated a large loss of product – oil seeping through wall into basement – tank has been emptied and clean up being done

DEC Investigator Remarks:

6/7/07–Matthew Klaas (Albany DER) –Contacted AVJ Realty Corp. at 914-963-5160, was informed that Mr. Korn had retired several years ago but was put in contact with David Lyons at 914-963-5160 ext. 29. He recalls the spill and problem and says it was completely taken care of at the time and that it is totally documented. He needs some time to retrieve the documents and then he

will send them to me for confirmation.

6/13/07 –Matthew Klaas (Albany DER) –Wrote a letter to David Lyons of AVJ Realty at 733 Yonkers Ave Yonkers, NY 10704 asking for the information I requested over the phone.

10/12/07 – Mike Komoroske (Albany, NY) –Received a call from a Barbara Martinsons, President of AVJ Realty Corp at 914–963–5160 ext 12. She was responding to a letter from Martin Brand (who was not in the office today) of this office requesting documentation of tank/spill closure. She was under the impression that the spill had been closed and was appreciative that the DEC called to her attention that it wasn't. Tank has been replaced and documentation provided by NYC. She is going to hire a contractor to determine condition in the subsurface. Hopes to hire contractor within a week or so. She will then provide response to letter with documentation of tank replacement and the subsurface investigation report which hopefully will be sufficient to close the spill.

10/17/2007: Received from Barbara Martinsons (AVJ Management Corporation) documentation regarding installation of new tank, closure of old tank, and new PBS certificate for new tank. M. Brand NYSDEC DER Albany

transferred back to Region 2

3/11/08 – Austin – Reassigned to Rahman for further investigation – end

03/18/08 According to 11/07 investigation by IVI Environmental, light petroleum non-aqueous phase liquids(LNAPLs) were identified below the sub level boiler room,oil was observed seeping through the basement wall.According to IVI, four soil borings were advanced, ground water was encountered at two inches below the floor slab. Free product layer was observed in one of the borings, free product emulsion was found floating at the surface of the remaining three borings. ATC performed Phase II investigation in 01/08.Eight soil borings were performed, six in the sidewalk, two in the basement.None of the soil borings outside of the boiler room encountered petroleum impacted soils.LNAPL was observed floating on the surface of the groundwater at borings SB-08,SB-11,and SB-12 and trace product at SB-07.VOCs/SVOCs in soil analyticals were below TAGM.The boiler room extends 10' deeper than the rest of the building, the bed rock was carved out to create the basement.(sr)

4/1/09 – Austin – Transferred from Needs Reassignment to Rahman for further work to remediate and close – end

04/09/09 Reviewing closure report.USTs are located adjacent to the boiler room, below the basement floor.Soil borings advanced outside of the boiler room encountered refusal on bedrock.None of the soil borings outside of the boiler room encountered petroleum impacted soils.In May and November of 2008 four EFR events recovered approx. 4,760 gallons of liquids(LNAPL and water) from below the floor slab of the boiler room.Following the second EFR events in July 2008, LNAPL was not observed in any of the recovery points. During the six inspections following the last EFR event on November 2008, only a sheen and products globules were observed in four recovery points.Inspections in Jan and Feb 2009, only a residual sheen was observed in one recovery point.Therefore, ATC concluded that all reasonably recoverable LNAPL has been removed from the subsurface.Furthermore, given the nature of the No.6 oil(high viscosity and low volatility), the location of the boiler room, and the placement of the epoxy coating on the walls and floors of the boiler room and the adjacent AST vault(located on top of one of the closed USTs), any residual fuel oil is not likely to pose a risk to human health or the environment.ATC recommended that all recovery points be backfilled with concrete and coated with the same epoxy coating as the rest of the boiler room floor, the boiler room floor be inspected periodically to assess its integrity. In February and March 2009, True Blue Environmental Services power washed the lower four feet of the walls and the floors of the boiler room and AST vault. The floors and walls were sealed with ArmorSeal

1,000 HS Epoxy Floor Coating.NFA required.(sr)

Map Identification Number 205

CHRISTIAN COMMUNITY

Spill Number: 9808907

Close Date: 05/12/2004



309 W.74TH ST

MANHATTAN, NY

TT-Id: 520A-0092-536

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2239 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|---------------------------------|---|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: GISELA WIELKI (PRIEST) – CHRISTIAN COMMUNITY | Spiller Phone: (212) 362-7204 |
| Notifier Type: Affected Persons | Notifier Name: MADELON HOLDER | Notifier Phone: (212) 877-4159 |
| Caller Name: MADELON HOLDER | Caller Agency: | Caller Phone: (212) 877-4159 |
| DEC Investigator: RWAUSTIN | Contact for more spill info: GISELA WIELKI (PRIEST) | Contact Person Phone: (212) 362-7204 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/17/1998 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

SOME TYPE OF BLACKISH MATERIAL COMING UP THROUGH THE FLOOR. OIL STS IT IS NOT HEATING OIL. REQ CALL FROM DEC.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was AUSTIN No PBS. 5/12/04 – AUSTIN – UNREGULATED SUBSTANCE REPORT FROM ALMOST 6 YRS. AGO – CLOSED – ORIG. ASSIGNED TO HALE – END

Map Identification Number 206

MAN HOLE 61729

Spill Number: 1502126

Close Date: 08/19/2015



WEST END AVE AND 85 AND 86 ST

NEW YORK, NY

TT-Id: 520A-0310-632

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (4)
 Approximate distance from property: 2242 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: WEST END AVE BTWN W 85TH ST & W 86TH ST
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Spiller: CON ED

Spiller Phone:

Notifier Type: Other

Notifier Name:

Notifier Phone:

Caller Name:

Caller Agency:

Caller Phone:

DEC Investigator: RWAUSTIN

Contact for more spill info: ERT

Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 05/28/2015 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| WASTEWATER | OTHER | 100.00 | GALLONS | 100.00 | GALLONS | |
| UNKNOWN PETROLEUM | PETROLEUM | 6.00 | GALLONS | 6.00 | GALLONS | |

Caller Remarks:

6 gallons oil on 100 gals water/clean up pending crew

DEC Investigator Remarks:

5/28/15: Mahat Spill case has been assigned to con ed unassigned.

8/19/15 - Austin - 6 gals cable oil found atop 100 gals water in vault - Con Ed contained and cleaned up the spill; no leaking equipment found in vault - See document files for further information - Spill closed - end

Map Identification Number 207

MANHOLE 61729

Spill Number: 0007959

Close Date: 06/30/2004

 WEST END AV/BET 85 & 86

MANHATTAN, NY

TT-Id: 520A-0102-212

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (4)
 Approximate distance from property: 2242 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: WEST END AVE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Other
 Caller Name: BILL MURPHY
 DEC Investigator: JHOCONNE

Spiller: UNKNOWN
 Notifier Name: MCQUEEN
 Caller Agency: CON EDISON
 Contact for more spill info: BILL MURPHY

Spiller Phone:
 Notifier Phone:
 Caller Phone: (212) 580-6763
 Contact Person Phone: (212) 580-6763

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/06/2000 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 2.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

2 GALS PRODUCT ON 1700 GALS WATER SAMPLE TAKEN CLEAN PENDING RESULTS MANHOLE CONTAINES 345 KV OIL FILLED FEEDERS M-51 M-52 CON ED 133819

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL e2mis no. 133819:

2 gallons of unknown oil and approx. 1700 gallons of water. Cleanup pending sampling results.

Sample ID No 00-09644 PCB 1 ppm.

CLEANUP CHECKLIST Source/cause of spill – NO LEAK FOUND X Removed/recovered liquid/solids. X Removed visible traces of oil. X Washed stained areas. X Other DOUBLE WASHED MANHOLE X Name of contractor S & D ENVIRONMENTAL Cleanup completed on Date 10-13-00 Time 09:30

Map Identification Number 208



SPILL NUMBER 9814552
RIVERSIDE DR / W 79TH ST

MANHATTAN, NY

Spill Number: 9814552

Close Date: 03/05/1999
TT-Id: 520A-0102-280

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
Approximate distance from property: 2312 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: W 79TH ST / RIVERSIDE DR
Revised zip code: 10024

Source of Spill: UNKNOWN
Notifier Type: Citizen
Caller Name: GWEN HAWKINS
DEC Investigator: HUANG

Spiller:
Notifier Name: MR LUCAS
Caller Agency: DEP
Contact for more spill info:

Spiller Phone:
Notifier Phone: (212) 595-2765
Caller Phone: (718) 595-6777
Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/05/1999 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 5.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

SPILLED IN STREET – CALLED IN BY A PASSERBY

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

SPOKE WITH JON LUCAS OF OIL CO. GOTHAM DELIVERY CAUSED SPILL. SPILLS MAY RUN INTO STORM DRAIN AT THE CORNER. CLEANUP TEAM IS WORKING THERE AT 3:45PM. CALL CIT LEFT MESSAGE. CALLED SANITATION 212 219-8090. SPOKE WITH BOB. HE WILL PUT SAND ON IT. FAXED TO DEP.

Map Identification Number 209 **218418; W 86 ST AND WEST END AVE**
 W 86 ST AND WEST END AVE

MANHATTAN, NY

Spill Number: 0914466

Close Date: 09/14/2009
 TT-Id: 520A-0248-722

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 2324 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: W 86TH ST / WEST END AVE
 Revised zip code: 10024

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Responsible Party
 Caller Name:
 DEC Investigator: DMPOKRZY

Spiller: ERT DESK – CON EDISON
 Notifier Name:
 Caller Agency:
 Contact for more spill info: ERT DESK

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 09/12/2009 | | UNKNOWN | | | | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIELECTRIC FLUID | PETROLEUM | 0 | GALLONS | 0 | GALLONS | UTILITY |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 210 **VAULT 5837**
 WEST 86TH ST AND WEST END AVE

MANHATTAN, NY

Spill Number: 0906576

Close Date: 10/14/2009
 TT-Id: 520A-0232-097

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 2324 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: W 86TH ST / WEST END AVE
 Revised zip code: 10024

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Local Agency
 Caller Name:
 DEC Investigator: RWAUSTIN

Spiller: ERT – UNKNOWN
 Notifier Name:
 Caller Agency:
 Contact for more spill info: ERT

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Any Type of RP Including No RP – No DEC Field Response – Corrective Action by Spill Response Not Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 09/09/2009 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN MATERIAL | OTHER | 0 | UNKNOWN | 0 | UNKNOWN | |

Caller Remarks:

No to all questions. Clean up pending chemical analysis

DEC Investigator Remarks:

10/14/09 – Austin – Leaking transformer lost 10 gals. of oil – Spill cleaned up and transformer replaced – see eDocs for details – spill closed – end

Map Identification Number 211 **218615; W END AVE AND 72ND ST**
 W END AVE AND 72ND ST

MANHATTAN, NY

Spill Number: 0914501

Close Date: 09/30/2009
 TT-Id: 520A-0249-519

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 2326 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: W END AVE / W 72ND ST
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Responsible Party
 Caller Name:
 DEC Investigator: DMPOKRZY

Spiller: ERT DESK – CON EDISON
 Notifier Name:
 Caller Agency:
 Contact for more spill info: ERT DESK

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 09/26/2009 | | UNKNOWN | | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIELECTRIC FLUID | PETROLEUM | 0 | GALLONS | 0 | GALLONS | UTILITY |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 212 **COMMERCIAL BUILDING** **Spill Number: 0707548** **Close Date: 12/13/2007**
 11 RIVERSIDE DRIVE NEW YORK, NY TT-Id: 520A-0211-104

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2329 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|--|--------------------------------------|
| Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER | Spiller: HARDIK PAREKH – COMMERCIAL BUILD | Spiller Phone: (518) 746-4400 |
| Notifier Type: Other | Notifier Name: | Notifier Phone: |
| Caller Name: | Caller Agency: | Caller Phone: |
| DEC Investigator: jbvought | Contact for more spill info: HARDIK PAREKH | Contact Person Phone: (518) 746-4400 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/09/2007 | | OTHER | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

FOUND CONTAMINATED SOIL DURING TESTING

DEC Investigator Remarks:

10/10/2007 Sangesland left a voice message with Mr. Parekh at EEA, asking for the name/address for the property owner or manager to send a CSL.

10/15/2007 Property Manager is: John Walpole 212 874 1434 – 11 Riverside drive Corp., New York, NY 10023

Building is a 16 story apt building that had 2– 25,000 tanks closed in place in backyard (work was done by someone else in summer 2007). EEA was hired to do soil boring testing around these tanks in Sept 2007. 5 borings were taken and some minor VOC and SVOC hits were found in soil samples. They took one groundwater sample which came back clean. EEA will send a closure report in to DEC. They do not expect to do any additional work and would like a closure based on the hits being minor.

11/07/07–Vought–Reviewed Phase II Subsurface Investigation Report (EEA Hardik Parekh Ph:516–746–4400 fax: 516–746–4432) dated September 2007 and received 10/23/07. Site is 16 story residential apartment building. Two (25000–gallon) #6 fuel oil USTs abandoned in place previously. Five soil borings installed around USTs. Groundwater at depth of 15'bg and one groundwater sample was collected. Letter requests No Further Action. Soil analyticals show: 1380ppb xylenes (B4 10–12'bg) and some minor PAH exceedences attributable to fill material. Groundwater analyticals show no TOGs 1.1 Groundwater Exceedences. As per Chart, tank invert is 11' below grade. No borings performed in expected downgradient location. Vought called Hardek and he will be out until December. Vought left message with Nicholas Recchia that scaled site plan is needed. Vought received call back from Recchia that he will submit scaled site plan.

DEC requires: 1) scaled site plan to ensure that gw sampling location is proximal to abandoned UST location and upon submission possibility of downgradient sample collection 2) cc to Recchia

12/5/07–Vought–Received call from Parek and he will submit scaled site plan.

12/13/07–Vought–Received scaled site plan that shows B5W 2' away from former UST location that extended to a depth of 15–17'bg. Vought called Parekh for distance of B2 away from USTs and B2 is approximately 2'6" from UST. Spill closed by Vought as soil samples were close enough and deep enough to characterize soil conditions below tank invert.

Map Identification Number 213



600 COLUMBUS

600 COLUMBUS AVE.

MANHATTAN, NY

Spill Number: 0407891

Close Date: 12/16/2011

TT-Id: 520A–0091–553

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 2362 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Fire Department
 Caller Name: TONY GIARDINO
 DEC Investigator: rmpiper

Spiller: UNKNOWN
 Notifier Name: FIRE DEPT.
 Caller Agency: GRENADIER REALTY
 Contact for more spill info: JORGE VAZQUEZ

Spiller Phone:
 Notifier Phone: () –
 Caller Phone: (718) 240–4664
 Contact Person Phone: (914) 476–2604

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
|------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 10/16/2004 | | UNKNOWN | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

Underground tank on the other side of the wall – leakage is coming through the wall – is contained. Commercial parking garage on the other side of the wall whe

DEC Investigator Remarks:

12/5/05– DEC Piper spoke w/ Mr. Vasquez. AS per conversation the ust is being used as a recovery point. and is still in ground/ not closed. I placed a call into PTC to determine status. Waiting for call back. 4/4/06– Grenadier Realty 718.640.4664–

1230 Pennsylvania ave, brklyn ,11239 4/25/06– DEC Piper spoke w/ MARK at PTC. He will look into it and get back to me with update and current status. 2/28/07– DECP iper mailed info request to mgmt agency.

4/18/07– DECP iper recieved letter from PTC.

DEC Piper received documetation that no oil is present in sump or in former tank. Based on work to date this spill is closed. See edocs if warranted.

Map Identification Number 214



ROADWAY

2 WEST 69TH ST

MANHATTAN, NY

Spill Number: 0811781

Close Date: 01/30/2009

TT-Id: 520A-0226-355

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 2382 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Citizen

Caller Name:

DEC Investigator: smsanges

Spiller: ROBERT KEPICH – UNKNOWN

Notifier Name:

Caller Agency:

Contact for more spill info: ROBERT KEPICH

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/28/2009 | | UNKNOWN | NO | | | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | SOIL |

Caller Remarks:

Third party caller states an unknown oil truck leaked an unknown amount of oil onto the roadway, creating a sheen coating. Sanitation dept enroute for sand.

DEC Investigator Remarks:

Sangesland spoke to Mr Kepich. couple of gallons area is being sanded by city sanitation.

Map Identification Number 215 **RIVERSIDE DR FROM 76TH TO 79TH**



MANHATTAN, NY

Spill Number: 0011833

Close Date: 02/05/2001
TT-Id: 520A-0102-194

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (5)
 Approximate distance from property: 2389 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: RIVERSIDE DR FROM 76TH TO 79TH ST
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Citizen
 Caller Name: KATHRYN HEINTZ
 DEC Investigator: TJDEMEO

Spiller: UNKNOWN – Unknown
 Notifier Name: KATHRYN HEINTZ
 Caller Agency: CITIZEN
 Contact for more spill info:

Spiller Phone:
 Notifier Phone: (212) 875-5782
 Caller Phone: (212) 875-5782
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/02/2001 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

CALLER STATES SHE NOTICED AN OIL SHEEN ON RIVERSIDE FROM 76TH TO 79TH. UNK WHERE IT IS FROM BUT IT WAS CAUSING HER VEHICLE TO SLIDE ON THE ROAD

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was DEMEO Sanatation notified and responded to sand street

Map Identification Number 216 **RAFFERTY RES** **Spill Number: 0109869** **Close Date: 12/08/2003**
 336 WEST 84TH ST MANHATTAN, NY TT-Id: 520A-0101-345

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2400 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|-------------------------------------|--------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: PETRUS OIL | Spiller Phone: |
| Notifier Type: Affected Persons | Notifier Name: TOM RAFFERTY | Notifier Phone: (212) 721-8219 |
| Caller Name: TOM RAFFERTY | Caller Agency: CITIZEN | Caller Phone: (212) 721-8219 |
| DEC Investigator: TJDEMEO | Contact for more spill info: CALLER | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 01/10/2002 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

caller states that the oil co made a delivery to the house across the street on thursday. and caller still has an odor of

heating oil in his basement. would like a call back

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was DEMEO 1/12/2002–Tim Demeo and Jeffrey Vought (NYSDEC) respond to spill by site visit. Investigation of the residence showed that odors were originating from hole in a schist cobble wall facing 84th street in the former coal chute in the basement. Investigation of neighboring residence 334 West 84th street also yielded odors through the cobble wall facing 84th street. During the site visit the caller (Mr. Rafferty–336 West 84th) indicated that there was a previous spill a week earlier across the street at 337 West 84th Street. Discussion with the superintendent of 337 (Willie 212–926–0633) yielded that Petro Oil company was the delivery company which caused the spill. Petro was called by the NYSDEC and responded by immediately hiring Milro Associates (Paul Basso 516–379–1500) to perform the investigation and cleanup.

1/14/2002–Milro performs site visit to investigate the problem. Milro (Paul Basso) proposed to immediately address the health and safety concerns by sealing the basement walls of both 334 and 336 west 84th street with mortar and epoxy. NYSDEC approved the proposal. Gary Morgeran (owner of 334 west 84th) approves of the sealing. Mr. Rafferty rejects the proposal. Milro then offered the temporary solution, also approved by the NYSDEC, of installing plastic sheeting and an air filter and blower to ventilate the basement. Mr Rafferty requested that no filters be installed because he had purchased two filters already. He also requested that no blower be installed because of security concerns through the trap door to the basement.

1/18/2002–Plastic sheeting installed in 336 and air filters installed in 334.

1/28/2002–Meeting held between the NYSDEC, Milro and their subcontractor Lutz Environmental to review the boring locations. Two borings in front of 337 and one boring in front of 336 and one in front of 334 were proposed and agreed upon.

2/21/2002–Milro after learning that they can't obtain the permits because they are not the drilling company refers the task to Lutz. Lutz finally receives the sidewalk permits after a long process of contacting the NYCDOT and schedules the drilling for this day.

3/5/2002–Milro sends Mr. Rafferty a sidewalk repair letter (at Mr. Rafferty's request) stating that the boring locations will be backfilled and patched to grade. Mr. Rafferty rejects the letter and requested Milro replace the entire 18'6" of sidewalk.

3/13/2002–Milro sends Mr. Rafferty's request to Petro who forwarded it to their insurance company (Crum & Forster– Donna Matt (888–890–1500)). Crum & Forster replies stating that their company would bear full responsibility for the sidewalk....even if that meant replacing the entire sidewalk. Mr. Rafferty rejects the request and says contact his lawyer and he will not approve of any work in front of his house. Investigation of DOT regulations indicated that the sidewalk is considered public property and Mr. Rafferty has no authority to prevent borings. Consultation with NYSDEC supervisor R. Austin results in decision to move borings into street if Mr. Rafferty does not approve of sidewalk work. An additional attempt is made to contact Rafferty (a message was left) to notify him that Crum & Forster is willing to replace entire sidewalk and that NYSDEC may install borings in street once DOT can be contacted for approval.

3/14/2002–Left message for Rafferty to call NYSDEC 3/15/2002–Left message for Rafferty to call NYSDEC 3/19/2002–Left message for Rafferty to call NYSDEC and was told by his secretary that he is away on vacation until mid–April

3/25/2002–Due to lack of contact with Mr. Rafferty and necessity of data points in front of his home (the original location of complaint) the NYSDEC attempts to obtain sidewalk permits in front of his house by leaving a message with the NYCDOT (Harvey Woods 718–780–8140). Drilling on north side of street is scheduled for 3/29/2002.

3/29/2002–Mr. Woods is contacted and explains that Mr. Rafferty's permission for the permit is not need as long as a letter is supplied from the NYSDEC which explains the necessity of the work for health and safety reasons. Drilling company is on-site and unable to gain sidewalk access to due parked cars blocking the sidewalk. Drilling will be rescheduled for a time during street cleaning (Mon or Thurs). Drilling is rescheduled for 4/11/02. Borings will not be able to be performed on sidewalk in front of Rafferty residence because application with NYSDEC letter cannot be processed in time. NYSDEC will schedule these borings and submit the required paperwork as soon as possible.

4/11/02–3 soil borings are performed on the north side of the street. Refusal at 9.5' on bedrock. No PID readings, staining or odor. Inspection of Rafferty basement shows that petroleum odors are no longer emanating from hole in basement foundation.

Rafferty is called by the NYSDEC and told that there are no longer any odors and that the soil samples across the street next to the source of the spill show no contamination. NYSDEC suggests that the overflow of the tank had entered the drain at the bottom of the stairwell. This caused a slug of contamination to enter the sewer system and both residences across the street. Repeated rain events had washed the slug into the through the system and away from the Rafferty and Morgeran residences. Mr. Rafferty is told that the NYSDEC would like to take a confirmatory sample to ensure that there is no longer vapors in his home. Mr. Rafferty agrees to air sampling.

4/22/2002–NYSDEC receives soil analyticals from boring on north side of street. Analyticals show minor exceedances of SVOC compounds which can be attributed to fill nature of soil. No naphthalene, anthracene or other compounds indicative of fuel oil are present.

5/3/02–Left Morgeran message to make appointment to confirm presence of odors in basement.

5/7/02–Morgeran called and no answer of phone. 5/9/02–Morgeran called and no answer of phone. 5/10/02–Morgeran called and no answer of phone. 5/13/02–Inspection of Morgeran residence also yields no odors. 5/24/02–Receive message from Rafferty that when he turns off air filter he still smells oil.

5/24/2002–Rafferty's message is returned and NYSDEC leaves a message requesting a time to collect an air sample for laboratory analysis. 5/28/02– Rafferty is left another message to arrange time for air sample collection 5/29/02–Rafferty is left another message to arrange time for air sample collection. 6/7/02–Rafferty is left another message to arrange time for air sample collection. 7/12/2002–Rafferty is left another message to arrange time for air sample collection. 8/08/2002–Rafferty is left another message to arrange time for air sample collection and is also told that the spill report is registered to his property and that it would be in his best interest to call back.

12/8/03 TJD Based upon the results of borings and non cooperation of affected party spill has been administratively closed.

Map Identification Number 217 **SEVEN GALLONS OF HYDRAULIC FLUID**
 53 WEST 68 STREET
 FROM VEHICLE #41814

MANHATTAN, NY

Spill Number: 0705876

Close Date: 09/20/2007
 TT-Id: 520A-0090-045

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2401 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: 53 W 68TH ST
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL VEHICLE
 Notifier Type: Responsible Party
 Caller Name:
 DEC Investigator: gdbreen

Spiller: ERTSDESK – CON EDISON VEHICLE
 Notifier Name:
 Caller Agency:
 Contact for more spill info: ERTSDESK

Spiller Phone: (212) 580-8383
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/23/2007 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| HYDRAULIC OIL | PETROLEUM | 7.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

CLEAN UP IN PROGRESS; REF #207700;

DEC Investigator Remarks:

09/20/07 – See eDocs for Con Ed report detailing cleanup and closure. 207700. see eDocs

Map Identification Number 218 **IN FRONT 545 WEST END AVE**
 FRONT 545 WEST END AVE

MANHATTAN, NY

Spill Number: 0000802

Close Date: 04/20/2000
 TT-Id: 520A-0098-010

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 2405 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: 10024

Source of Spill: COMMERCIAL VEHICLE Spiller: UNKNOWN Spiller Phone:
 Notifier Type: Police Department Notifier Name: OFFICER MORALES Notifier Phone: (212) 678-1811
 Caller Name: JASON SITANGGANG Caller Agency: DEP Caller Phone: (718) 595-6777
 DEC Investigator: MCTIBBE Contact for more spill info: OFFICER MORALES Contact Person Phone: (212) 678-1811

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 04/19/2000 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #2 FUEL OIL | PETROLEUM | 10.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

a truck is leaking motor oil on the above location.nypd is on the scene.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIBBE TANK TRUCK MAKING DELIVERY LEAKED HEATING OIL NOT MOTOR OIL. ACCORDING TO DEP, TRUCK SPILLED ABOUT 10GAL TO STREET AND SOME IN CATCH BASIN. SANITATION SANDED STREET.

Map Identification Number 219 **PARKING GARAGE**
 267-273 W87 ST

MANHATTAN, NY

Spill Number: 1500997

Close Date: 10/01/2015
 TT-Id: 520A-0309-050

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)
 Approximate distance from property: 2422 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: 267-273 WEST 87TH STREET
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: QSB 267 PROPERTY CO LLC Spiller Phone:
 Notifier Type: Other Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: Caller Phone:
 DEC Investigator: SXMAHAT Contact for more spill info: RYAN MANDERBACH Contact Person Phone: 2124795582

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 04/28/2015 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | SOIL |

Caller Remarks:

Phase 2 showing petroleum in soil samples.

DEC Investigator Remarks:

5/11/15: Mahat DEC Mahat left a voice message to Ryan Manderbach @ Langan Engineering inquiring more information about the spill case. DEC is waiting for a call back.

10/1/15: Mahat DEC Mahat will be provided BCP PM and RIR. Spill case has been crossed referenced with BCP. C231096 DEC Mahat partner with BCP Project Manager MD Hoque @ 518.402.9475 regarding consolidating the project together. Spill case in NYSDEC Spill Database will be closed and project will be lead solely by BCP program.

Map Identification Number 220

SPILL NUMBER 9912480

Spill Number: 9912480

Close Date: 03/02/2000



10 WEST 90TH ST

MANHATTAN, NY

TT-Id: 520A-0098-786

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2433 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Affected Persons
 Caller Name: STEVEN CRIBBIN
 DEC Investigator: JHOCONNE

Spiller: UNKNOWN
 Notifier Name: MR CALLAHAN
 Caller Agency: CON ED
 Contact for more spill info: STEVEN CRIBBIN

Spiller Phone:
 Notifier Phone: (212) 580-6763
 Caller Phone: (212) 580-8576
 Contact Person Phone: (212) 580-8576

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 02/01/2000 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM | 3.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

ABOVE MATERIAL DISCOVERED AT ABOVE LOCATION. MATERIAL AMOUNT IS REPORTED AS MIXED WITH WATER. MATERIAL POSSIBLY IS HEATING OIL SPILLED FROM DELIVERY AT BUILDING #10 WEST 90TH ST. MATERIAL DISCOVERED AT EXCAVATION SITE. CHEM LAB RESPONDING FOR SAMPLE. CLEANUP TO BE PERFORMED AFTER TESTING AND MATERIAL TO BE STORED UNTIL LAB RESULTS ARE RECEIVED. NO CALL BACK. NO CON ED #.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL CON ED E2 MIS REPORT 2/01/00

3 gallons of oil and water in company excavation f/o 10 West 90th Street. Spill contained in excavation, Chem Lab on location samples taken, company crews will do cleanup and all waste will be put in drum pending Chem Lab results, did not enter any waterways or sewers or sub-surface structures, spill caused by possible fuel-oil delivery to above location.

Map Identification Number 221 **210 WEST 89TH ST VAULT #5535**
 210 WEST 89 TH ST

MANHATTAN, NY

Spill Number: 0806603

Close Date: 09/12/2008
 TT-Id: 520A-0222-354

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2441 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: 210 WEST 89TH ST
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Other
 Caller Name:
 DEC Investigator: HRAHMED

Spiller: ERP - CON ED
 Notifier Name:
 Caller Agency:
 Contact for more spill info: ERP

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (212) 158-08383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 09/12/2008 | | OTHER | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | SOIL |

Caller Remarks:

There is approx 1 pint of a liquid believed to be fuel oil in the water on the floor of above vault. The oil is coming into the vault from a crack in the wall believed to be from a neighboring building.

DEC Investigator Remarks:

10/20/08 – See eDocs for Con Ed report detailing cleanup and closure. 09/12/08–HRAHMED–Duty Desk–Called Nick Rella of NYPA and left a message. Nick called back. He said the released material was Refrigerant 22 and it fully evaporated. Spill report forwarded to Sam Lieblich of Air Program for their information.

This case is closed.

Map Identification Number 222

MANHOLE 5535

Spill Number: 0200291

Close Date: 08/19/2009



210 WEST 89TH ST

MANHATTAN, NY

TT-Id: 520A-0091-328

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2441 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Affected Persons
 Caller Name: ANTHONY NATALE
 DEC Investigator: RWAUSTIN

Spiller: UNKNOWN – Unknown
 Notifier Name: ANTHONY NATALE
 Caller Agency: CON EDISON
 Contact for more spill info: CALLER

Spiller Phone:
 Notifier Phone: (212) 580-6763
 Caller Phone: (212) 580-6763
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
|------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 04/09/2002 | | UNKNOWN | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | | PETROLEUM | 1.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

oil discovered in manhole

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was RODRIGUEZ E2MIS Notes #142176

On 4/9/02 at 11:27 L. First # 04738 Project specialist called to report that at 09:30 M. Gilson # 17065 of the I&A had found 1 gallon of residual fuel oil mixed with 500 gallons of water. This is in Vault-5535 & is located at 210 W. 89 St. He was there to do a disconnect. This substance was from a prior spill see incident # 122376. This will be a third party spill. A tag will be hung # 10792 (R. Biliski # 04919 I&A supervisor called with the tag #) No smoke or fire was involved. No sewers or waterways were affected. There is no movement on the water. No injuries were related to the spill. Weather conditions do not contribute to the hazard of the spill. No private property affected. The cleanup will start immediately, there is a tanker on location already to pump out the water from this location due to the sealed drains.

UPDATE 4/9/2002 @ 17:13 HRS

Spoke to Biliski # 04919 I & A, and he informed me that as of now the cleanup is complete. He needs to wait approx. a week to see if in fact the historic spill of oil leaking into the structure is stopped. I down-graded the incident to a spill-unknown oil for this reason stated above.

Yesterday, 4/30/02, MEHS, I&A, flush operations and SESCO were present @ V 5535 IFO 210

W.89th st.

Following a predetermined designed template, holes were drilled and a new to the site material (Duro Soil) was injected into these holes to waterproof and correct

the continuing but slight 3rd party fuel oil migration being experienced into the vault.

After a short curing period, the vault will be re-cleaned and oil leak monitoring will again begin.

Call with any questions

UPDATE: 7/16/02

See e-mail from Frank Romano, Manh. EH&S to R. Pellegrino, Manh. Envir. Desk dated 7/15/2002:

Bob,

Please update the E2mis report for the work completed @ 210 W.89th st on Friday June 14,2002.

This work included participation from I & A for access, Flush to dewater (150–200 gal) and pressure clean vault, and corp. transportation to stand by an with an

<50 tanker.

Vendor SESCO inspected , drilled a new hole matrix and inserted 20 gallons of 3M 5600 grout in this matrix.

I am requesting a return to the site on Friday July 21,2002 , to allow SESCO to remove remaining grout plugs

and thoroughly inspect for any further oil leaks or product migration.

The work should be completed within a 4 hour period.

Please provide and confirm that an I & A crew will provide access

I met with Bob O'neil this morning @ the site after the injection plugs were removed and the vault was thoroughly cleaned and inspected. No new oil was apparent We will re-inspect Thursday (7/25) for steam genny Friday(7/26) if no further oil leaks or migration is experienced over the coming week.

Dan

We're out on this location this morning. Previous attempts to seal this location have not been successful, however, the amount of oil seeping into the structure has been reduced significantly. If in fact the oil has stopped seeping into the structure, we'll be employing the following plan to get a unit installed.

1. Verify today that the oil is not migrating into the structure.
2. Next Friday, have Brooklyn Environmental Ops soda blast the walls to remove any oil which has been absorbed by the concrete.
3. Monitor the structure for 1 week for signs of oil either seeping into the structure or leeching from the walls. If necessary, have the structure soda blasted again.
4. If everything goes well, the unit can be installed in about 3 weeks. I know that might seem long. The history on this

structure is that it has thwarted every

effort control the oil. I don't want to drop a unit until I'm sure the oil is under control.

Walter

I could use the assistance of Brooklyn Environmental with a difficult cleanup location. I have a vault 5535 F/O 210 w.89th st which is a long term remediation project. The vault is in an area where there is a fuel oil leak from a nearby building. Rather than wait for the building to cleanup the spill, we moved forward with sealing the vault. After numerous attempts, the sealing looks like it has worked and there is no oil migrating into the structure. The is oil seeping from the walls which I suspect is oil absorbed by the walls during the initial leak. These have proved difficult to clean effectively. I would like to have your crew use your soda blast to clean these walls. I have attached a copy of the oil sample. The parking days are Tuesday & Friday 8-11am.

UPDATE: 8/05/02

Bob O'Neil, I&A North Planner made arrangements for this vault to be cleaned again by the special Brooklyn/Queens Environmental Operations team with their steam cleaning and soda blasting technique. The cleanup is scheduled for Tuesday, Aug. 6, 2002.

UPDATE 8/6/2002 @ 18:09 HRS

Mike Knox #38504 of Brklyn/Queens Envir. reported that the cleanup was completed @ 1745 HRS on 8/6. Mike Knox states that the walls are still stained. No solids were removed. 300 gallons of water and cleaning fluids were removed. The structure was double-washed with 35 gallons of BIO-GEN. The walls and floor were steamed cleaned. The crew used 7 bags of baking soda via the Soda blast technique. The Environmental tag # 10792 was removed.

Austin - 8/19/09 - See spill # 9810768. Remediation work of tank rupture in apartment completed in 2003 (note: unable to clean around Con Ed vault due to sability issues) Spill # 0200291 closed, based upon work under # 9810768 - end

Map Identification Number 223



SPILL NUMBER 0101768

20 RIVERSIDE DR

MANHATTAN, NY

Spill Number: 0101768

Close Date: 05/17/2001

TT-Id: 520A-0097-830

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (4)

Approximate distance from property: 2455 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Federal Government
 Caller Name: ARLENE ANDERSON
 DEC Investigator: MXTIPPLE

Spiller: UNKNOWN
 Notifier Name: US COAST GUARD
 Caller Agency: EPA
 Contact for more spill info: RUS MAGILO

Spiller Phone:
 Notifier Phone: (718) 354-4136
 Caller Phone: (732) 906-6803
 Contact Person Phone: (718) 354-4137

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 05/16/2001 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|--|--|------------------|---------|--------------------|---------|----------------------|
| OTHER The following material(s) was dropped or revised by the | OTHER NYS DEC. Call Toxics Targeting for more information | 0 | GALLONS | 0 | GALLONS | SURFACE WATER |
| OTHER PETROLEUM | UNKNOWN | 0 | GALLONS | 0 | GALLONS | |

Caller Remarks:

unknown amount of hds– hydrogen sulfide – being investigated by the coast guard

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIPPLE CONSTRUCTION COMPANY DEWATERING AREA THAT WAS ONCE A LANDFILL, PUMPING CEASED,FDNY DID PRESSURE FLUSH DUE TO READINGS ABOVE LEL

Map Identification Number 224 **APARTMENT BUILDING** **Spill Number: 0610885** **Close Date: 04/25/2007**
 255 WEST END AVE NEW YORK, NY TT-Id: 520A-0090-375

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2475 feet to the WSW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|-----------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: UNKOWN. | Spiller Phone: |
| Notifier Type: Other | Notifier Name: | Notifier Phone: |
| Caller Name: | Caller Agency: | Caller Phone: |
| DEC Investigator: HRPATEL | Contact for more spill info: MIKE | Contact Person Phone: (212) 712-1609 |

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/27/2006 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

HAS BEEN CONTAINED; NOT YET CLEANED;

DEC Investigator Remarks:

12/28/06–Hiralkumar Patel. spoke with Noel at Stuyvesant fuel. he noticed oil coming through wall where fill line runs. believe fill line leak. Stuyvesant spred speedy dry and absorbent pads. they will not do any further cleanup as it is from faulty equipment.

12/29/06–Hiralkumar Patel. visited site. site has 5000 gal tank sitting on concrete block, about 1–2 ft higher than floor, inside concrete vault with access. observed oil stain on wall where fill line enters into tank room. all lines are aboveground except part of fill line that runs under sidewalk. looks like fill line has leak for long time. no oil stains on floor around tank except one area, which is left side of tank room entrance. absorbent pads were there and found free product under it. there is small window on wall right above this oil stain and found small opening between tank room and boiler room wall. found free product in this small opening also.

spoke with Jacob Sirotkin, property manager. Jacob told that he has hired ABC Tank for spill cleanup. he already asked his oil company to stop further delivery. Jacob mentioned that his plumber will open sidewalk and will replace leaking fill line and then ABC will remove contaminated material from site. told Jacob that as tank sitting on concrete, the Department requires tank test. also told him about oil stain and free product on tank room floor and between tank room and boiler room wall must be removed properly.

PBS#: 2–211559

super of building: Rony (212) 712–1609

Jacob Sirotkin (property manger) Jordan Cooper Associates, Inc. 7 Penn Plaza 14th Floor New York, NY 10001 Ph. (212) 613–4611 (O)

(917) 295–7855 (C) FAX (212) 888–0414 Email: jacob@jordancooper.com

received call from Donna (PH. 718–272–2800, FAX 718–272–3147) from ABC tank. explained her about required work. she is preparing proposal for required work and if get approval, will start work on 01/02/07.

sent CSL to Jacob requiring tank test and contaminated soil/material removed inside tank room as well as outside along fill line. letter faxed to Donna at ABC tank. letter emailed to Jacob alongwith PBS correction form as mailing address for management office has been changed.

1/11/07 – Austin – Temporarily assigned to Vought, in Patel's absence

04/05/07–Hiralkumar Patel. left message for Jacob and asked him to submit report by 04/13/07. spoke with Donna at ABC. as per Donna, another person/company replaced leaking fill line, but they did removed 21 drums (18 along fill line on sidewalk and 3 from inside tank room) of contaminated soil and took endpoint samples. endpoint samples are clean. tested tank and found tight. ABC will release entire report as they get paid for work done.

04/12/07–Hiralkumar Patel. received fax from Donna from ABC containing tank test and sample analyticals. tank test found tight tank system. sample analyticals shows soil sample taken at vent pipe. spoke with Donna at ABC. explained her that problem was with fill line as it was leaking. so DEC needs soil sample at fill port and along fill line, not at vent pipe. also asked Donna to send detailed report with observations during line repair, scaled site plan with piping locations, sample location, excavation depth, sample depth etc.

04/24/07–Hiralkumar Patel. received fax from Donna from ABC Tank containing drawing showing sample location. they took soil sample along fill line. no word about depth of excavation, depth of soil sample at fill line, reason for oil found on floor along wall between tank and boiler room. spoke with Jacob. he will meet at site.

04/25/07–Hiralkumar Patel. visited site on 04/24/07. met Jacob on-site. oil stain found on wall where fill line enters into building. area, where oil found along wall between tank and boiler room, has cleaned up and that is lowest part in tank room. no more oil found in that area. based on site observations and oil stains on tank room floor; oil, that was found on floor along wall, could have accumulated in the area that was leaked into tank room from leaking fill line. as per Jacob, ABC dug about 8 ft deep along entire fill line and removed contaminated soil. also they powerwashed tank room, twice. no odors inside tank room.

based on observations during site visit and available documents, case closed.

Map Identification Number 225



SERVICE BOX #15862

W. 90TH ST./COLUMBUS AVE.

MANHATTAN, NY

Spill Number: 0405889

Close Date: 12/21/2004

TT-Id: 520A-0090-836

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 2478 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: W 90TH ST / COLUMBUS AVE

Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Other

Caller Name: TOM MARCINEK

DEC Investigator: SKARAKHA

Spiller: UNKOWN.

Notifier Name: MR. CURTIS

Caller Agency: CON ED

Contact for more spill info: ERT DESK

Spiller Phone:

Notifier Phone: (212) 580-6763

Caller Phone: (212) 580-6763

Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
|-------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 08/30/2004 | | UNKNOWN | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | | PETROLEUM | 1.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

One Gal. of material on 50 gal of water. Clean up pending lab results. ConEd#155122

DEC Investigator Remarks:

e2mis no 155122

Meledez and crew discovered fuel oil had been spilled or had leaked from a from an unknown 3rd party source. He goes on to report that the fuel oil has leached down from street into service box and looks like approx. 1 gallon on top of approx. 50 gallons of water. At this time no oil truck is in the area, but he does feel that this is a 3rd party spill due to the smell of the fuel. Two samples taken PCB & ID, & Flash Point. Clean up pending lab results.

Lab Sequence Number: 04-06889-001 – PCBs < 1 ppm, Flash Point, PMCC > 140 deg F

9/24 AT 12:00 On 9/24 at 11:40 Maiurro # 16702 of UG reported to me that the cleanup completed as of 11:00 HRS on 9/24/2004. PPe's were disposed as solid waste. The tanker removed 200 gallons of mixed liquid. The structure was double-washed with SLIX . The Environmental tag # 18517 was removed.

Map Identification Number 226



IFO

562 WEST END AV

MANHATTAN, NY

Spill Number: 9612897

Close Date: 08/14/2012

TT-Id: 520A-0092-394

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 2514 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Local Agency
 Caller Name: ALBERT GORDON
 DEC Investigator: SFRAHMAN

Spiller: UNKNOWN BUT BELIEVED TO B
 Notifier Name: CONTRACTORS
 Caller Agency: NYC DEP
 Contact for more spill info: CALLER

Spiller Phone:
 Notifier Phone:
 Caller Phone: (718) 595-4714
 Contact Person Phone: (718) 595-4714

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 01/30/1997 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

contractors found oil coming out of the ground while they were digging – dep doing investigation at this time

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was M TIBBE Sondra Martinkat – 1/31/97. Conversation with Al Gordon, DEP. Cracked fill line. Delivery on the 23rd. Odors bad.

Management Company Argo Corp 10 Columbus Circle NY, NY 10019 212-873-4844

Superintendent Luciano 212-873-4888

4k tank – took 2k during delivery.

8/2/05– temporary transferred lead to Woodward

** No further information available regarding the incident. More spill is too old. Therefore concerned person could not be contacted. Spill administratively closed.**

Spill transferred back to Region 2

3/10/08 – Austin – Spill assigned to Ahmed for followup – end

10/27/11 – Austin – Spill Transferred from Ahmed to Rahman – end

Map Identification Number 227 **562 WEST END AVE**
 562 WEST END AVE

MANHATTAN, NY

Spill Number: 1405674

Close Date: 10/09/2014
 TT-Id: 520A-0300-680

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2514 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: DEC
 Caller Name:
 DEC Investigator: SXMAHAT

Spiller: PETER SOLER – PETER SOLER
 Notifier Name:
 Caller Agency:
 Contact for more spill info: PETER SOLER

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (347) 408-9201

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 08/22/2014 | | UNKNOWN | NO | NO |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

Caller Remarks:

Contaminated soil found during the pipe enhancement project performed by Con Ed.

DEC Investigator Remarks:

Contaminated soil found during the pipe enhancement project performed by Con Ed.

8/25/14: Mahat DEC Mahat responded to the site to investigate reported historical spill on the site. Contaminated soil was observed on the vicinity of the fill port. DEC partnered with Super of the building to perform a pressure test on the fill line. A spill will call in the property based on the site visit. Spill is coressed referenced to spill # 1405504.

Peter Soler

**** Super attendant 347.408.9201

8/26/14: Mahat DEC Mahat contacted Mr. Soler inquiring about the process on pressure test. He mentioned a boiler company is schedule to have the fill line presseure test on 8/27/14.

09/02/14: Mahat DEC Mahat received an email from Mr. Higgins mentioning that the pressure test was done on the fill line and it passed the test. Below is her email :

Santosh- We have been advised by Riteway Tank Maintenance Corp that the oil fill line has successfully passed the pressure test of the fill line at the above captioned location. I am sending a copy of the Affidavit from Riteway under separate cover. Thank you. Marina

The fill line test is uploaded on the D2. Hence, the spill was not fresh and this was a historical spill and no further action is required by the Department. No sample were taken and mechanical room was in the best shape possible. Based on the fill observation, test result and background search, the spill will be closed in the database. DEC Demeo was also involved in the case as a mentor. No more requirements by the Department.

Map Identification Number 228 **EXCAVATION SITE** **Spill Number: 1405504** **Close Date: 10/06/2014**
 562 WESTEND AVE MANHATTAN, NY TT-Id: 520A-0302-180

MAP LOCATION INFORMATION **ADDRESS CHANGE INFORMATION**
 Site location mapped by: PARCEL MAPPING (1) Revised street: 562 WEST END AVE
 Approximate distance from property: 2514 feet to the NNW Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: ERT – CON EDISON Spiller Phone:
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: Caller Phone:
 DEC Investigator: RWAUSTIN Contact for more spill info: ERT Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/20/2014 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 1.50 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

Discovery of unknown oil. Cleanup is pending. No waterways or sewer involved.

DEC Investigator Remarks:

emis 237867

8/15/14: Mahat DEC Mahat responded to the site to investigate reported historical spill on the site. Contaminated soil was observed on the vicinity of the fill port. DEC partnered with Super of the building to perform a pressure test on the fill line. A spill will call in the property based on the site visit. New spill # 1405674 will be coressed referenced to this spill.

Peter Soler

**** Super attendant 347.408.9201

Con Edison Point of Contact : Wayne Simmonds 917.577.1321

**** Filed Supervisor

10/6/14 – Austin – Con Ed dicovered fill line spill contamination in soil while conducting utility excavation,in fron of 562 West End Ave. – Con Ed completed work, and disposed of material they removed – Spill associated with the fill line is # 1405674 – See document files for further information – This spill closed – end

Map Identification Number 229 **AMSTERDAM AV** **Spill Number: 9612167** **Close Date: 10/03/1997**
 **BET W.89TH & W.90TH ST** **MANHATTAN, NY** **TT-Id: 520A-0102-208**

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (4)
 Approximate distance from property: 2528 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: AMSTERDAM AVE / W 89TH ST / W 90TH ST
 Revised zip code: 10024

Source of Spill: GASOLINE STATION OR PBS FACILITY Spiller: UNKNOWN Spiller Phone:
 Notifier Type: Other Notifier Name: KBS Notifier Phone:
 Caller Name: MARCO PEDONE Caller Agency: ENVIRONMENTAL MANAGEMENT Caller Phone: (914) 345-1498
 DEC Investigator: O'DOWD Contact for more spill info: MARCO PEDONE Contact Person Phone: (914) 345-1498

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|---|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/09/1997 | | UNKNOWN | YES | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| OTHER | OTHER | 0 | GALLONS | 0 | GALLONS | SOIL |
| The following material(s) was dropped or revised by the NYS DEC. Call Toxics Targeting for more information | | | | | | |
| OTHER PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | |

Caller Remarks:

CALLER REPORTS KBS IS DOING EXCAVATION WORK AND ENCOUNTERED CONTAMINATED SOIL / CALLER BELIEVES SITE IS OLFD GAS STATION / THERE ARE STILL SEVERAL UNDERGROUND TANKS / CALLER WILL BE DOING FURTHER TESTS

 DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

SPOKE TO MR. PEDONE, JUST SOIL CONTAMINATION SO FAR. NO HIM ABOUT PBS OBLIGATION. HE SAID, HE WILL BE AT THE SITE EARLY TOMORROW MORNING. FEBRUARY 7, 1997 TO APRIL 11, 1997- APPROX. 7,400 TONS OF NON-HAZ. PETROLEUM CONTAMINATED SOILS WERE REMOVED FROM THE SITE. THREE USTS WERE REMOVED ALSO. 1X2000 GAL UST, 1X550 GAL UST AND ANOTHER 550 GAL UST. A VAPOR BARRIER WAS LAIN ACROSS THE ENTIRE SITE. THIS VAPOR BARRIER SHOULD BE EFFECTIVE TO MITIGATE ANY UPWARD MOBILITY OF VOLATILE VAPORS, IF ANY ARE PRESENT. DOCUMENTATION SHOWING BEDROCK TO BE COMPETENT AND NO WATER ENCOUNTERED DURING EXCAVATION ACTIVITIES.

| | | | | |
|--|----------------------|-----------------------------------|------------------------------|-------------------------------|
| Map Identification Number 230 | 74 WEST 68 ST | | Spill Number: 8906472 | Close Date: 05/17/1994 |
|  | 74 W 68TH ST | MANHATTAN, NY | | TT-Id: 520A-0095-743 |
| MAP LOCATION INFORMATION | | ADDRESS CHANGE INFORMATION | | |
| Site location mapped by: PARCEL MAPPING (1) | | Revised street: NO CHANGE | | |
| Approximate distance from property: 2550 feet to the SSW | | Revised zip code: NO CHANGE | | |
| Source of Spill: TANK TRUCK | | Spiller: EMPIRE STATE FUEL | Spiller Phone: | |
| Notifier Type: Citizen | | Notifier Name: | Notifier Phone: | |
| Caller Name: P O FUSCO | | Caller Agency: USCG | Caller Phone: (212) 668-7920 | |
| DEC Investigator: SULLIVAN | | Contact for more spill info: | Contact Person Phone: | |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/02/1989 | 05/17/1994 | OTHER | UNKNOWN | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|--------|--------------------|--------|----------------------|
| #2 FUEL OIL | PETROLEUM | 50.00 | POUNDS | 0.00 | POUNDS | SEWER |

Caller Remarks:

WHILE DELIVERING FUEL TO CUSTOMER, HOSE CAME LOOSE AND OIL WAS SPRAYED OVER SIDEWALK, SOME PRODUCT RUN-OFF TO SEWER.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 231

SPILL NUMBER 0202046

Spill Number: 0202046

Close Date: 11/14/2003



574 WEST END AV

MANHATTAN, NY

TT-Id: 520A-0101-157

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2570 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Local Agency
 Caller Name: TONY RIVERA
 DEC Investigator: JXZHAO

Spiller: UNKNOWN
 Notifier Name: MANUEL VALADINE
 Caller Agency: ROTO ROOTER
 Contact for more spill info: MANUEL VALADINE

Spiller Phone:
 Notifier Phone: (212) 595-8599
 Caller Phone: (718) 981-3808
 Contact Person Phone: (212) 595-8599

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 05/27/2002 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SEWER |

Caller Remarks:

CALLER WORKS FOR ROTO ROOTER HIS BEEPER 917-491-5430 – CALLER STATES HE WAS CALLED FOR A SEWER PROBLEM IN THE BASEMENT OF TEH ABOVE APARTMENT COMPLEX, AND AS HE WAS CLEARING THE PIPE A LARGE AMOUNT OF THICK POSS #6 OIL CAME OUT OF THE SEWER LINE – IT IS UNKNOWN WHERE THE OIL IS COMING FROM – THE WATER AND FURNACE TO THE BLDG HAS BEEN SHUT DOWN

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was ZHAO/TIPPLE Referred to DEP.

Map Identification Number 232 **IN ROADWAY**
 20 W. 68TH ST

MANHATTAN, NY

Spill Number: 0308676

Close Date: 11/17/2003
 TT-Id: 520A-0097-224

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2598 feet to the SSW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------|----------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN – Unknown | Spiller Phone: |
| Notifier Type: Local Agency | Notifier Name: THERIN COTTON | Notifier Phone: (212) 689-1520 |
| Caller Name: THERIN COTTON | Caller Agency: DEP NYC | Caller Phone: (212) 689-1520 |
| DEC Investigator: MXTIPPLE | Contact for more spill info: UNK | Contact Person Phone: (000) 000-0000 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 11/15/2003 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:
 caller reporting for citizen who reported odor of petroleum – unk source – unk source – material was cleaned up

DEC Investigator Remarks:
 Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIPPLE

Map Identification Number 233 **1995 BROADWAY**
 1995 BROADWAY

MANHATTAN, NY

Spill Number: 0407958

Close Date: 09/06/2006
 TT-Id: 520A-0095-260

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2625 feet to the SW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|---|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: ROBERT TREBINO | Spiller Phone: (212) 284-3795 |
| Notifier Type: Other | Notifier Name: MARK SALAMACK | Notifier Phone: (718) 624-4842 |
| Caller Name: MARK SALAMACK | Caller Agency: PETROLIUM TANK CLEANERS | Caller Phone: (718) 624-4842 |
| DEC Investigator: HRPATEL | Contact for more spill info: ROBERT TREBINO | Contact Person Phone: (212) 284-3795 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/18/2004 | | OTHER | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #4 FUEL OIL | PETROLEUM | 25.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

about 25 gallons spilled.spill hasnt been cleaned up yet.

DEC Investigator Remarks:

10/20/2004 Sangesland spoke to Mark at PTC. Cross ref prior spill #0105791 Sangesland requested PTC to perform a tank test on this tank.

12/19/05 Feroze. Spill is transferred from Ketani to Feroze.

12/21/05 Feroze. Talked with Mr. Robert Trebino, the property owner and sent him a letter to submit DEC Tank Test Result.

02/02/06. Feroze Called Mr. R. Trebino(212-284-3795) and left a message for him. PBS case of this site is # 2-112399. According to PBS documents they have one tank of 20000 gallons capacity and it is vaulted with access.

02/21/06. Feroze Called Mr. R. Trebino and left a message for him.

02/24/06. Feroze talked with Operator (212-362-1137) of that building. He told me that building Engr. will call me regarding the issue. Cross ref prior spill #0105791. Building Engr. told me to talk to Robert Trambino. 03/02/06 Feroze talked with Robert. He is requested to submit the documents that he has repaired the tank and the system. Fax no of MR. ROBERT 212-742-2626.
 03/15/06. Spill is transferred from Feroze to Kumer Patel.

03/28/06-Hiralkumar Patel. Left message for Robert, property manager and for Mark at Petroleum.

03/29/06-Hiralkumar Patel. Spoke with Mark at Petroleum. he told me that he visited site first in end of 2004. at that time he removed oil/water mix from tank room and he left. when he left site, it was required to wash that room. then Mark got call again

from this site in January this year. when Mark visited site again in Jan. 06, he found that room was flooded again with water having oil on top of it. Petroleum has sent out proposal for cleanup and the owner/manager was not agree with this proposal. Mark doesn't know after that. Spoke with Robert and he told me that the person handling environmental matter at this company is out for vacation and will be back on Mon Apr. 3.

03/30/06–Hiralkumar Patel. visited site at 10:00 AM. Met with Robert Trombino, manager of property and Miro Kormanik, super of building. super is working here for last five years. property has 20,000 gas tank in basement. tank is on legs and have access to bottom of tank. no significant oil on tank, means no leaks from tank. at the time of visit, little water was on floor. no signs of oil on remaining water. floor in in bad condition. one spot of concrete floor was popped up due to underground water pressure. as per super, water is coming into boiler room throughout the year through this open spot. the walls of tank room are in good condition except one location. tank room wall towards street side has approx. 10' long crack and this wall is closest side of building wall to the fill port. this crack is approx. 25' below street level. tank room ceiling is about 10' deep than street level. wall below crack has oil stain and it was shining at time of visit. but no odor in tank room. fill port is on 68th street about 8–10 ft away from building wall. when current super started working at this property, they had same situation of water and oil mix into tank room in 2001. at that time, DEP and fire department responded to site. DEP had took samples and found little oil floating on water. when they had problem in 2001, somebody tested tank system and found fill line was leaking. and they had replaced old fill line and put new line at different location approx. 5 ft away from old fill port. during replacement they have dug out some soil but didn't do any soil investigation. it looks like whatever oil they lost from old fill line leak was coming into tank room through that crack in wall. super doesn't know who removed that oil/water mix from location & tested system and replaced line in 2001. asked super to call back with this information. as per super, water keep coming into tank room after cleanup. Spoke with Mark at Petroleum. as per Mark, they had removed 3700 gal of oil/water mix in end of 2004. when he visited site in Jan. 2006, he found approx. same amount of water/oil at location. the level of oil/water mix was 6–8 inch. and as per property manager Mr. Trombino, nobody has contacted yet for cleanup of tank room after Jan. 2006. but when i visited site, it looks like somebody removed oil/water from location as no significant water level found in tank room. but when i entered into tank room, i found that tank room floor was wet and broken concrete on floor was soaked with water. Spoke with super and he told me that nobody cleaned room after Jan. and as per him there was no water upto 6–8 inch in tank room ever. as per super, water level raise upto 4 inch in lowest part of tank room which is under the tank. no odor complaints in building. super doesn't have daily inventory of oil usage. they order about 6500 gal each time and delivery frequency is depends on whether. they are using #4 heating oil, but PBS record shows #2 heating oil. asked super to submit PBS registration form with necessary corrections.

Discussed with DEC_Austin. as per Austin, i asked Mr. Trombino to call city DEP to find out source of water coming into tank room and to workout to correct any defective water line under/near property. as per Austin, this tank would consider as AST as you can look under and around tank. he suggest me to ask property manager for line tests to find out is any line leaking or not.

Letter sent out to Mr. Trombino and faxed to Mr. Trombino and Mr. Kormanik asking for soil investigation at sidewalk on 68th street where fill port is and where fill pipe runs, tank test to confirm any leak and groundwater samples at sidewalk. letter faxed to manager and super.

Robert Trombino (property manager) Cammeby's Management Co LLC 45 Broadway 25th Floor New York, NY 10006 Ph. (212) 509–9797 Ext.3795 FAX (212) 509–5229

Miro Kormanik (super) Cammeby's Management Co LLC Ph. (212) 362–1159 FAX (212) 362–1491

04/06/06–Hiralkumar Patel. Received call from Abraham from NYCity tank test company (718–731–7011). he did tank test and tank

passed. he has replaced manhole gasket and petrometer. he will take required samples and will submit lab results to Department. Received fax from New York City Tank Testing Inc. showing tank passed in test.

04/21/06–Hiralkumar Patel. Received call from Abraham from NYCity Tank test company. he was suggesting to take groundwater sample from the inside of the building. and will take two soil samples from the location specified in letter.

05/16/06–Hiralkumar Patel. Spoke to Abraham at NYC Tank Test. they took samples on Mon. May 8, 2006 and waiting for lab results. will get lab results probably end of next week. will call once get lab results.

06/06/06–Hiralkumar Patel. Spoke to Abby. he doesn't get results yet. 06/12/06–Hiralkumar Patel. REceived fax from Abby, contains lab results. soil sample was taken next to the fill box at a depth of 3 ft. further penetration was not possible due to an underground vault. water sample was taken from under the tank room. water sample has naphthalene exceeding TGAM limit, but because of little exceedence, DEC Austin suggest to close the case. Spoke to Abby at NYC Tank testing. as per him, there is water table at about 12–15 ft below street level. building wall close to street side has 10 ft crack and it is about 25 ft below street level and as per Abby's information, this crack must be below water level. at time of site visit, i have observed oil stain below this crack.

Left message for Mr. Trombino to send final report. asked to clean all stains from wall and to seal all the cracks inside tank room. asked to send color photographs after cleaning and sealing of tank room.

06/16/06–Hiralkumar Patel. Received message from Mr. Trombino. Left message for Mr. Trombino. 07/10/06–Hiralkumar Patel. Left message for Mr. Trombino. 07/13/06–Hiralkumar Patel. received message from Berny (917–648–5551) from NYC Tank testing. spoke with Berny. they have cleaned wall stains and sealed it. he will check about floor and once done will send final closure report.

08/10/06–Hiralkumar Patel. spoke with Berny. he will send final report in next week. 08/23/06–Hiralkumar Patel. spoke with Berny. he has got final disposal manifest and will send final report in couple of weeks. 08/30/06–Hiralkumar Patel. received letter report through fax from Mr. Bauer from NY City Tank Testing. abstract: – found manhole gasket defective. a new gasket was installed and system was retested and passed – crack in the foundation wall was repaired by chipping 4–6 inches (in depth) of the wall then cemented and water proofed.

found another open spill case at the same site for incident of water flood in 2001. spill # is 0105791. Qasim Abidi in remediation group is working on this old case.

09/06/06–Hiralkumar Patel. received photographs from NYC Tank Testing. based on available information, case closed. refer old spill# 0105791.

09/12/06–Hiralkumar Patel. sent out NFA letter on owner's request. sent copy of letter to Bernie at NYC Tank TEsting and to Qusim at DEC Remediation who was handling case #:0105791.



CLOSED STATUS HAZARDOUS SPILLS – MISC. SPILL CAUSES – EQUIPMENT FAILURE, HUMAN ERROR, TANK OVERFILL, DELIBERATE SPILL, TRAFFIC ACCIDENT, HOUSEKEEPING, ABANDONED DRUM, VANDALISM AND STORMS – WITHIN 1/2 MILE SEARCH RADIUS.
All spills mapped and profiled within 1/8 mile. Between 1/8 mile and 1/2 mile search radius, spills reported to be greater than 100 units and spills reported in the NYSDEC Fall 1998 MTBE Survey are mapped and profiled. Spills reported to be less than 100 units are listed in a table at the end of this section.

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identification Number 234

VAULT 7264

Spill Number: 0505106

Close Date: 01/10/2006



COLUMBUS AV AT W 79 ST

MANHATTAN, NY

TT-Id: 520A-0097-844

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 50 feet to the W*

ADDRESS CHANGE INFORMATION

Revised street: COLUMBUS AVE / W 79TH ST

Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Responsible Party

Caller Name: MARK SCHLEGEL

DEC Investigator: GDBREEN

Spiller: ERT – CON ED

Notifier Name: MR. MORAN

Caller Agency: CONED

Contact for more spill info: ERT DESK'

Spiller Phone: (212) 580-8383

Notifier Phone: (212) 580-6763

Caller Phone: (212) 580-8383

Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 07/28/2005 | | EQUIPMENT FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| DIELECTRIC FLUID | PETROLEUM | 2.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

NO TO ALL 5 QUESTIONS. CLEAN UP PENDING. CON ED REF # 160095. SAMPLE TAKEN.

DEC Investigator Remarks:

160095.000

7-28-05 @ 03:14. S Asfour # 49908 reports that while inspecting v7264 w/s columbus av 50' n/o w 79 st, he discovered 2 gallons of transformer had leaked from the transformer onto the concrete floor and into the sump pit. There was or is no smoke or fire involved. No sewer or waterway affected. No injuries and weather had no affect. Account # w3282 is being used for this incident. There is a drip rate of 1 drop per 10 seconds coming from the throat of the transformer. No measuring device was used to detrmine the amount of the spill. The trap was checked and there is no evidence of a release outside of the structure. Source of the spill is the transformer and the cause is a leak. No private property affected. Environmental yellow tag # 41945 was applied. Water is standing. No visual water movement. Sump pump was found unplugged. No substantial cracks were observed. 1 liquid sample was taken by S Asfour # 49908 from the spill for pcb. Sample priority e . Chain of custody # dd13320. Oil absobent pads were applied to the spill to contain. Cleanup is pending deenergization of equipment.....J Moran # 01182

Map Identification Number 235 **COLUMBIS AVE**
 W. 78TH ST

MANHATTAN, NY

Spill Number: 0101318

Close Date: 05/04/2001
 TT-Id: 520A-0089-887

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 51 feet to the SW*

ADDRESS CHANGE INFORMATION

Revised street: COLUMBUS AVE / W 78TH ST
 Revised zip code: NO CHANGE

Source of Spill: TANK TRUCK
 Notifier Type: Local Agency
 Caller Name: CHEREELLE MAYFIELD
 DEC Investigator: MXTIPPLE

Spiller: UNKNOWN – Unknown
 Notifier Name: MANHATTEN FD
 Caller Agency: NYC DEP
 Contact for more spill info:

Spiller Phone:
 Notifier Phone: (212) 570-4300
 Caller Phone: (718) 595-6777
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 05/03/2001 | | EQUIPMENT FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| DIESEL | PETROLEUM | 50.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

tank truck is leaking on the street
 fd is on scene req a call back to the fire dept

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIPPLE FDNY ON SCENE VAC TRUCK AND SPEEDY DRY REMOVED MOST OF THE FUEL IOL FROM THE PAVEMENT SANITATION SANDED AND SWEEPED THE REMAINING OIL FROM THE ROADWAY

MOISHA MOVING TRUCK WAS THE SOURCE AS PER FDNY

Map Identification Number 236

SPILL NUMBER 9906118

Spill Number: 9906118

Close Date: 08/22/2003



66 WEST 77TH ST

MANHATTAN, NY

TT-Id: 520A-0092-639

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 143 feet to the SW*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Other
 Caller Name: ROBERT CABASSA
 DEC Investigator: RWAUSTIN

Spiller: SERGIO
 Notifier Name:
 Caller Agency: M & B TRUCKING
 Contact for more spill info: SERGIO

Spiller Phone: (212) 362-2956
 Notifier Phone:
 Caller Phone: (718) 328-3275
 Contact Person Phone: (212) 362-2956

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/23/1999 | | TANK OVERFILL | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 10.00 | GALLONS | 10.00 | GALLONS | SOIL |

Caller Remarks:

FAULTY GAUGE LED TO THE TANK BEING OVERFILLED. SPILLED ONTO SIDEWALK AND IS IN PROCESS OF CLEAN UP. EXPECTING TO RECOVER ALL MATERIAL

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was AUSTIN 8/22/03 - AUSTIN - CLOSED DUE TO MINOR NATURE OF SPILL EVENT - ORIG. ASSIGNED TO ROMMEL - END

Map Identification Number 237 **PVT DWELLING/APT. COMPLEX** **Spill Number: 1111702** **Close Date: 01/09/2012**
 45 WEST 81 ST NEW YORK, NY TT-Id: 520A-0269-294

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 155 feet to the NE*

ADDRESS CHANGE INFORMATION

Revised street: 45 W 81ST ST
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Other
 Caller Name:
 DEC Investigator: smsanges

Spiller: G& D TRANSPORTATION
 Notifier Name:
 Caller Agency:
 Contact for more spill info: AL WOODWORTH

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/04/2012 | | HUMAN ERROR | NO | | | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | PETROLEUM | 3.00 | GALLONS | 0.00 | GALLONS | |

Caller Remarks:

spill to paved surface/clean up crew en route

DEC Investigator Remarks:

Overfill shot out vent pipe. 2-3 gal onto sidewalk. Company did cleanup. No drains or soil impacted. Cleanup completed. spill closed.

Map Identification Number 238 **EXCELSIOR HOTEL** **Spill Number: 0013297** **Close Date: 09/15/2003**
 45 WEST 81ST STREET MANHATTAN, NY TT-Id: 520A-0091-204

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 155 feet to the NE*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|--|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: IVAN – EXCELSIOR HOTEL | Spiller Phone: (212) 362–9200 |
| Notifier Type: Other | Notifier Name: IVAN | Notifier Phone: (212) 362–9200 |
| Caller Name: ISAAC MUNGRA | Caller Agency: PETROLEUM TANK CLEANERS | Caller Phone: (718) 624–4842 |
| DEC Investigator: RWAUSTIN | Contact for more spill info: IVAN | Contact Person Phone: (212) 362–9200 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 03/20/2001 | | EQUIPMENT FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #6 FUEL OIL | PETROLEUM | 50.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

LEAK FROM FILL LINE. SPILLED INTO CONCRETE BASEMENT. SPILLER HAS BEEN GIVEN PRICES FOR CLEAN UP AND REPAIRS. NO CLEAN UP OR REPAIRS AT THIS POINT.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was AUSTIN 03/20/2001 Spoke to Ivan Weiner at the Hotel – 212–362–9200. He hired Petroleum Tank Cleaners to clean spill. No drains, oil contained in tank room. No impact to people in hotel.

9/15/03 – AUSTIN – SPILL CONTAINED IN BASEMENT, NO FURTHER ACTION NEEDED FROM DEC – CLOSED IN DATABASE – ORIG. ASSIGNED TO ROMMEL – END

Map Identification Number 239 **430 COLUMBUS AVE**
 430 COLUMBUS AVE

MANHATTAN, NY

Spill Number: 9608499

Close Date: 10/08/1996
 TT-Id: 520A–0092–361

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 164 feet to the N*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER Spiller: STELLAR MANAGMENT Spiller Phone: (212) 873-0955
 Notifier Type: Other Notifier Name: DOMINICK AGOSINO Notifier Phone:
 Caller Name: JIM CAREY Caller Agency: CASTLE OIL CORPORATION Caller Phone: (718) 579-3414
 DEC Investigator: SMMARTIN Contact for more spill info: Contact Person Phone: (212) 873-0955

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/08/1996 | | TANK OVERFILL | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #2 FUEL OIL | PETROLEUM | 20.00 | GALLONS | 20.00 | GALLONS | SOIL |

Caller Remarks:

storage tank overfill – spill has been cleaned up

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was MARTINKAT

Map Identification Number 240 **430 COLUMBUS AVE**
 430 COLUMBUS AVE

Spill Number: 9607683 **Close Date: 09/18/1996**
 MANHATTAN, NY TT-Id: 520A-0092-355

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 164 feet to the N*

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: TANK TRUCK Spiller: JANET MATOS – CASTLE OIL COMPANY Spiller Phone: (718) 579-3413
 Notifier Type: Responsible Party Notifier Name: JANET MATOS Notifier Phone: (718) 579-3413
 Caller Name: JANET MATOS Caller Agency: CASTLE OIL COMPANY Caller Phone: (718) 579-3413
 DEC Investigator: SIGONA Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 09/18/1996 | | TANK OVERFILL | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 10.00 | GALLONS | 10.00 | GALLONS | SOIL |

Caller Remarks:

tank overfill onto concrete

spill was contained clean up almost complete

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 241 **SPILL NUMBER 9802899** **Spill Number: 9802899** **Close Date: 03/03/2003**
 101 WEST 78TH ST NEW YORK, NY TT-Id: 520A-0092-505

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 164 feet to the WSW*

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|----------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: MYSTIC OIL | Spiller Phone: |
| Notifier Type: Responsible Party | Notifier Name: SAL | Notifier Phone: (718) 932-9075 |
| Caller Name: FRAN ARCHEY | Caller Agency: A L EASTMOND | Caller Phone: (718) 378-7000 |
| DEC Investigator: TOMASELLO | Contact for more spill info: SAL | Contact Person Phone: (718) 932-9075 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 06/04/1998 | | TANK OVERFILL | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 150.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

CALLER REPORTING OVERFILL OF TANK. CLEAN UP WILL BEGIN UPON ARRIVAL OF CREW.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

SAME AS 9802892
 - FRAN CALLED AL EASTWOOD 135
 - SPILL OVER 200 GALLONS IN FRONT OF BUILDING. CAME OUT VENT AND MANHOLE.IN STREET AND IN TANK ROOM. EASTMOND CLEANING FOR MYSTIC.
 - FAX TO ECS

| | | | | |
|--|----------------------------------|--------------------------------------|------------------------------|-------------------------------|
| Map Identification Number 242 | APARTMENT BLDG | | Spill Number: 9802892 | Close Date: 03/03/2003 |
|  | 101 W 78TH ST | NEW YORK CITY, NY | | TT-Id: 520A-0092-504 |
| MAP LOCATION INFORMATION | | ADDRESS CHANGE INFORMATION | | |
| Site location mapped by: PARCEL MAPPING (1) | | Revised street: NO CHANGE | | |
| Approximate distance from property: 164 feet to the WSW* | | Revised zip code: NO CHANGE | | |
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: UNK - APARTMENT BLDG | Spiller Phone: | | |
| Notifier Type: Other | Notifier Name: TOM DERITA | Notifier Phone: (718) 932-9075 | | |
| Caller Name: TOM DERITA | Caller Agency: MYSTIC | Caller Phone: (718) 932-9075 | | |
| DEC Investigator: TOMASELLO | Contact for more spill info: UNK | Contact Person Phone: (000) 000-0000 | | |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Unknown RP - DEC Field Response - DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 06/04/1998 | | EQUIPMENT FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 200.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

GAUGE IS FAULTY CAUSING SPILL INTO ALLEY WAY--SPILL CREW HAS BEEN DISPATCHED FOR CLEANUP.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 243

APT. BUILDING
44 WEST 77TH ST

MANHATTAN, NY

Spill Number: 0805295

Close Date: 08/12/2008
TT-Id: 520A-0220-540



MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 166 feet to the SSW*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
Notifier Type: Other
Caller Name:
DEC Investigator: smsanges

Spiller: MR. CHAFETZ - APT. BUILDING
Notifier Name:
Caller Agency:
Contact for more spill info: MR. CHAFETZ

Spiller Phone:
Notifier Phone:
Caller Phone:
Contact Person Phone: (212) 396-8267

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 08/07/2008 | | EQUIPMENT FAILURE | NO | | | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 10.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

FILL LINE FAILURE; CLEAN UP IN PROGRESS AND REPAIR IN PROGRESS AS WELL;

DEC Investigator Remarks:

Leak from fill line into vault room. Room and spill were contained. No drains, no soil. PTC replaced fill line. All work complete. 2 drums of material removed & disposed.

Map Identification Number 244

BASEMENT

Spill Number: 1310806

Close Date: 05/27/2014



35 WEST 81ST ST

MANHATTAN, NY

TT-Id: 520A-0297-240

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 172 feet to the NE*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Other

Caller Name:

DEC Investigator: HRPATEL

Spiller: UNKNOWN

Notifier Name:

Caller Agency:

Contact for more spill info: DAVID KAHN

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: (516) 546-1100

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 02/12/2014 | | EQUIPMENT FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #6 FUEL OIL | PETROLEUM | 15.00 | GALLONS | 0.00 | GALLONS | |

Caller Remarks:

leaking line. Clean up unknown

DEC Investigator Remarks:

02/14/14--Hiralkumar Patel. alternate address: 35 to 39 W 81st Street

PBS #: 2-063673. as per PBS record, the site has one 7,500 gal #6 oil AST on saddles, in-service.

other spill # 0401022 was reported on 04/29/2004 due to 3 gal of fuel spilled onto about 20 gal of water in ConEd service box. clean up done by ConEd. case closed.

81st Dwellers Inc.

property owner c/o Maxwell Kates, Inc. 9 East 38th Street, 6th Floor New York, NY 10016 Attn.: Mitchell Berg PH. (212) 684-8282

2:01 PM:- spoke with Bill at Preferred. they found #6 oil spill onto tank room floor, due to leak in remote fill line. oil seepage was found in area where fill line enters the building. further investigation will be done, once sidewalk opening permit is received. the site has one 7,000 gal #6 oil AST on saddles. Bill noted about 12 ft by 12 ft area of oil spill onto tank room floor. loose oil in tank room has been cleaned up using absorbent.

2:58 PM:– sent letter to Ms. Berg requiring investigation for contamination, endpoint samples and tank system tightness test. asked her to submit report by the end of 04/30/14. letter emailed to Bill.

03/04/14–Hiralkumar Patel. 10:55 AM:– received call from Bill. he mentioned that during cleanup of loose oil from tank room floor, the contractor (Branch Restoration – an asbestos abatement company) found leak from tank itself. Bill mentioned that contractor was in process of removing oil from the tank. asked Bill to confirm product removal from the tank. he will call back. he also mentioned that there is a scaffolding support column, right near where remote fill line is located. this scaffolding belongs to neighbouring building. informed Bill that the Department requires investigation/cleanup of any contaminated material due to leak in fill line. suggested him to excavate small trench, only if it is safe, to remove remote fill line. otherwise case will remain open until required investigation/cleanup is performed. Bill will talk to property manager/owner regarding possibility of fill line excavation.

03/07/14–Hiralkumar Patel. 2:15 PM:– received call from Bill. he confirmed that a temp tank has been installed on street and crew is pumping out oil from leaking tank today. Bill mentioned that the neighbour, whose scaffolding column is near the leaking fill line location, refused to move the scaffolding without a correspondence from DEC. asked Bill to provide neighbour's contact information.

03/10/14–Hiralkumar Patel. received email from Bill (at 4:58 pm on 03/07/14). he mentioned that all the usable oil has been transferred out of the AST into temporary tank. Bill also sent contact info for neighbouring hotel manager.

Ivan Weiner ~ Hotel Manager Excelsior Hotel 45 W 81st Street New York, NY 10024 PH. (212) 362–9200

03/18/14–Hiralkumar Patel. 9:57 AM:– received call from Bill. he mentioned that the existing scaffolding located on fill line area will be removed and a new scaffolding will be placed on 03/20/14. as such, fill line work will happen tomorrow and contractor will excavate and remove leaking fill line and any associated contamination.

03/19/14–Hiralkumar Patel. 10:30 AM:– visited site. met Dennis (516–672–2308) from Preferred. due to gas line in area and support for temporary supply/return lines from temp tank on street, he was waiting for guidance from his supervisor. suggested him to talk to ConEd, if needed. inspected tank room. the tank is aboveground, sitting on floor. no odors noted around tank. inspected area where fill/vent line crosses the building's southern foundation wall. found oil seepage from fill line area. noted a gas line, about 1 ft below the fill/vent location. during site visit, spoke with Evan, manager of next door hotel. requested him to hold on to scaffolding installation in area of fill line work. he will inform the scaffolding company.

2:30 PM:– received call from Dennis. they opened two sidewalk flags located close to building. he found leak in fill line, along the building's foundation wall. asked him to confirm integrity of remaining portion of fill line, to the fill port.

03/20/14–Hiralkumar Patel. 1:05 PM:– received call from Bill. they found crack in fill line, along the building's foundation wall. they removed about 1 yard of contaminated soil. they dug down to 20 inches where bedrock was found. no more contamination observed in sidewall. as no signs of contamination noted in excavation's southern sidewall (towards fill port and street), they did not remove piece of fill pipe towards the fill port. endpoint samples have been submitted for analysis. Bill will submit report, once endpoint sample results are received. informed him to include information about condition of basement floor underneath the tank (once tank is removed) and observations during fill line excavation including information about piece of fill line left under the sidewalk.

05/12/14–Hiralkumar Patel. 3:20 PM:– spoke with Bill. he will review file and call back with update.

05/13/14–Hiralkumar Patel. 2:38 PM:– spoke with Bill. he mentioned that the tank is removed and will submit report by tomorrow.

05/20/14–Hiralkumar Patel. 4:21 PM:– received email from Bill including spill closure report.

05/27/14–Hiralkumar Patel. based on available information, case closed.

Map Identification Number 245 **106 WEST 81ST ST/MANH**
 106 WEST 81ST STREET

NEW YORK CITY, NY

Spill Number: 9007523

Close Date: 10/10/1990
 TT-Id: 520A-0098-757

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 203 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Responsible Party
 Caller Name: JULIE O'BRIEN
 DEC Investigator: WILSON

Spiller: PETRO HEAT & POWER
 Notifier Name:
 Caller Agency: PETRO HEAT & POWER
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone: (718) 545-4500
 Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/09/1990 | 10/10/1990 | TANK OVERFILL | UNKNOWN | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 1.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

SPEEDRY DRY APPLIED, PICKED UP & DISPOSED.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 246 **SPILL NUMBER 0200505**
 25 W 81ST ST

MANHATTAN, NY

Spill Number: 0200505

Close Date: 07/09/2003
 TT-Id: 520A-0091-329

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 242 feet to the NE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Other
 Caller Name: NICK PASCAL
 DEC Investigator: SMSANGES

Spiller:
 Notifier Name:
 Caller Agency: HESS
 Contact for more spill info: LUKE

Spiller Phone:
 Notifier Phone:
 Caller Phone: (201) 489-5100
 Contact Person Phone: (212) 874-1356

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 04/15/2002 | | EQUIPMENT FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 5.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

the gadge at the apartment house is off by 900 gallons – the superintendent at the apartments is doing the clean up now

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SANGESLAND

Map Identification Number 247 **64 WEST 82ND ST/MANH**
 64 WEST 82ND STREET

MANHATTAN, NY

Spill Number: 9000007

Close Date: 07/12/2006
 TT-Id: 520A-0091-746

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 252 feet to the NE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: Spiller Phone:
 Notifier Type: Other Notifier Name: Notifier Phone:
 Caller Name: RALPH NAPLATANO Caller Agency: BAERENKLAU OIL CO Caller Phone: (718) 647-9229
 DEC Investigator: SXLASDIN Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 04/01/1990 | | EQUIPMENT FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #2 FUEL OIL | PETROLEUM | 5.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

FUEL LINE IS LEAKING GOING TO THE FURNACE.

DEC Investigator Remarks:

7/12/06. 5 gallons spilled in 1990, close spill

Map Identification Number 248 **55 WEST 76TH STREET** **NEW YORK, NY** **Spill Number: 9414562** **Close Date: 02/04/1995**
 55 WEST 76TH STREET TT-Id: 520A-0092-144

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 253 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: Spiller Phone: (212) 595-4275
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:
 Caller Name: MR. CULLEN Caller Agency: CASTLE OIL CORP. Caller Phone: (718) 823-8800
 DEC Investigator: O'DOWD Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 02/03/1995 | 02/04/1995 | EQUIPMENT FAILURE | UNKNOWN | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | 10.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

PIPE CRACKED ON A 550 GAL. OIL TANK IN BASEMENT OF AN APARTMENT BLDG. FIRE DEPT. ON SCENE ALONG WITH CASTLE OIL REP.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

10/10/95: This is additional information about material spilled from the translation of the old spill file: FUEL OIL.

Map Identification Number 249

HOME/APT
74 WEST 82 ST



MANHATTAN, NY

Spill Number: 1308427

Close Date: 07/08/2014
TT-Id: 520A-0293-430

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 253 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: 74 W 82ND ST
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
Notifier Type: Other
Caller Name:
DEC Investigator: TJDEMEO

Spiller: 74 WEST 82 ST
Notifier Name:
Caller Agency:
Contact for more spill info: TONY LARA

Spiller Phone:
Notifier Phone:
Caller Phone:
Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 11/19/2013 | | EQUIPMENT FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 20.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

spill to inside and outside/clean up pending

DEC Investigator Remarks:

11/20/13 TJD T/C with Anthony Lara of Riteway Tank – he states the spill was reported due to a preclosing walk-through of property this past Thursday (11/14/13) – pending real estate transaction. Report spill is suspected to be caused by overfill of 275 basement AST. Anthony Lara states the vent piping is dislodged from tank and there is contaminated sand on concrete floor around tank – no separate phase product is observed. The vent pipe outside has some dry staining on wall – appears historical. Petroleum odors are reported to exist inside structure. Riteway has not yet been retained for cleanup – will provide DEC update within a few days. No active leak.

7/8/14 TJD File review. Closure report has been received from Riteway Tank – as per report, spill cause was a faulty gauge on 275 AST basement tank. Riteway temporarily relocated tank to facilitate spill cleanup. Following the removal of contaminated absorbents from the concrete basement floor, Riteway proceeded with an investigation of subsurface soils followed by the removal of 21 drums of contaminated soils to approximate excavation dimensions of 5x7x3 ft bgs. Upon the completion of excavation, residual soils were screened with a PID until no further contamination was detected. Endpoint samples were collected from base/sidewalls of open excavation prior to backfill. A review of the laboratory data from the sampling event reveal all target analytes are within acceptable concentrations. All required closure documentation has been received and uploaded to DECDOCS. No further action is required. Spill closed.

Map Identification Number 250  **57 W. 76TH STREET**
 57 W. 76TH STREET

MANHATTAN, NY

Spill Number: 9308078

Close Date: 09/29/1993
 TT-Id: 520A-0091-998

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 253 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Other
 Caller Name: ABBY GOLDMAN
 DEC Investigator: TOMASELLO

Spiller:
 Notifier Name:
 Caller Agency:
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone: (212) 874-1884
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------------|---------------------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 09/27/1993 | 09/29/1993 | HUMAN ERROR | UNKNOWN | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #4 FUEL OIL MERCURY | PETROLEUM HAZARDOUS MATERIAL | -1.00 0 | GALLONS UNKNOWN | 0.00 0 | GALLONS UNKNOWN | SOIL SOIL |

Caller Remarks:

CLEANING BAVOMITEUE & LEAKED TO APARTMENT FLOOR PA NOTIFIED ON SCENE BUREAU OF HAZ WASTE HEALTH DEPT. ANALYSER READING TAKEN NEEDS CONTRACTOR & CALL BACK.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 251 **108 WEST 80TH ST/MANH**
 108 WEST 80TH STREET

NEW YORK CITY, NY

Spill Number: 9003894

Close Date: 07/09/1990
 TT-Id: 520A-0091-757

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 272 feet to the NW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Responsible Party
 Caller Name: FRANK O'DONNELL
 DEC Investigator: KSTANG

Spiller: BAERENKLAU
 Notifier Name:
 Caller Agency: BAERENKLAU
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone: (718) 647-4200
 Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 07/09/1990 | 07/09/1990 | HUMAN ERROR | UNKNOWN | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | 1.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

FUEL SPILLED FROM VENT, SPEEDY DRY BEING USED, TO PICK UP & DISPOSE.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TANG

Map Identification Number 252 **101 WEST 81ST ST**
 101 WEST 81ST ST

Spill Number: 9511954 **Close Date: 12/21/1995**
 MANHATTAN, NY TT-Id: 520A-0097-831

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 293 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|-------------------------------------|-------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: MR CAREY – CASTLE OIL CORP | Spiller Phone: (718) 579-3414 |
| Notifier Type: Responsible Party | Notifier Name: DRIVER | Notifier Phone: |
| Caller Name: JOHN BARRICELLA | Caller Agency: T S TRUCKING COMP | Caller Phone: (718) 499-2900 |
| DEC Investigator: SMMARTIN | Contact for more spill info: | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 12/21/1995 | | EQUIPMENT FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | 4.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

EQUIPMENT FAILURE CAUSED SPILL ONTO THE SIDE OF THE BUILDING AND INTO THE SNOW – CALLER IS A TRUCKING COMP FOR CASTLE OIL & HAD VERY LITTLE INFO

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was MARTINKAT

Map Identification Number 253 **ENDICOTT APARTMENT CORP.** **Spill Number: 1000110** **Close Date: 04/06/2010**
 101 WEST 81ST STREET MANHATTAN, NY TT-Id: 520A-0248-490

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 293 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL VEHICLE
 Notifier Type: Other
 Caller Name:
 DEC Investigator: jbvought

Spiller: CASTLE OIL
 Notifier Name:
 Caller Agency:
 Contact for more spill info: MILLIE LOPEZ

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 04/03/2010 | | HUMAN ERROR | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #4 FUEL OIL | PETROLEUM | 40.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

APPROX 35-40 GALLONS TO ALLEYWAY PAVEMENT DUE TO FUEL DELIVERY TO WRONG ADDRESS. CLEANUP PENDING.

DEC Investigator Remarks:

04/03/10-Vought-Primary off-hours responder. Called and spoke to Millie Lopez (Ph:718-579-3413) and spill on concrete due to miss-delivery. Cleanup being performed by Riteway Tank (Anthony Lara 718-855-7270 cell:917-709-3317). Lopez also indicated that spill was in alleyway, no sewers were affected and spill cleaned using speedy dry. Vought called Riteway (Lara) for update. Vought left message for Lara to return call with confirmation of cleanup. Vought spoke to Lara and no oil in basement and Castle cleaned oil out of vent pipe. Lara will call back with further information. Vought received call and spill was to two 1250 gallon USTs and Riteway pumped fuel out of tanks as #6 fuel was delivered to #2 fuel oil tanks. Spill cleaned by Castle Oil and this confirmed by Lara. Vought required possible powerwash of alleyway and Riteway (Lara) to perform site visit to determine if powerwash is warranted. Lara will perform site visit and return call to Vought. Lara noted that impacted debris remained under the stair metal staircase (oil saturated leaves and dirt).

4/6/10-Vought-Called PBS #2-249092 contact Stuart Bardin (Halstead Mgmt Co 212-396-8266) to confirm presence of debris under staircase. Barin on vacation and Vought left message for his emergency contact Gayle Whitney also at Halstead (212-396-8272) to confirm the presence of oil saturated debris under the staircase. DEC Patel performing site visit. Vought received call from Patel who was onsite and had inspected impacted area under staircase and noted difficulty accessing area as well as lack of olfactory odors and that spill was on concrete. Patel noted that spill could be closed. Spill closed by Vought. Vought called Whitney and left message of same.

Map Identification Number 254 **APART**
 101 WEST 81ST STREET

MANHATTAN, NY

Spill Number: 0602795

Close Date: 06/13/2006
 TT-Id: 520A-0097-395

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 293 feet to the N

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
 Notifier Type: Other
 Caller Name:
 DEC Investigator: rmpiper

Spiller: MARCUS- SUPER - APART
 Notifier Name:
 Caller Agency:
 Contact for more spill info: MARCUS- SUPER

Spiller Phone: (212) 362-5100
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (212) 362-5100

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 06/13/2006 | | EQUIPMENT FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 15.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

DEFECTIVE GAUGE ON TANK: CONTAINED AND CLEAN UP CREW ON SCENE CLEANING UP: SIDEWALK ONLY NO WATER EFFECTED

DEC Investigator Remarks:

DEC Piper spoke w/ Robert Iaria at Metro. Spill was due to faulty gauge on tank. 10-15 gallons spilled to concrete. Crew responded and site is cleaned. Piper spoke w/ Super of bldg., as per him, they have cleaned up as best as possible. A stain is still present. He is satisfied w/ the cleanup. Closed.

Map Identification Number 255 **BASEMENT SPILL**
 446 COLUMBUS AV

MANHATTAN, NY

Spill Number: 0514785

Close Date: 04/18/2006
 TT-Id: 520A-0097-833

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 293 feet to the N

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|-----------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: | Spiller Phone: |
| Notifier Type: Fire Department | Notifier Name: CAPT SMITH | Notifier Phone: (212) 570-4261 |
| Caller Name: CAPT SMITH | Caller Agency: NYCFD | Caller Phone: (212) 570-4261 |
| DEC Investigator: HRPATEL | Contact for more spill info: NYFD | Contact Person Phone: (212) 570-4261 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 03/25/2006 | | EQUIPMENT FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SEWER |

Caller Remarks:

cause was broken gauge on oil burner in basement. spill occurred on the basement floor and into a sump pump. Unknown quantity.
 Haz-Mat operations number: 212-360-4480

DEC Investigator Remarks:

03/27/06-Hiralkumar Patel. Received spill report during off hours duty on Saturday Mar 25. Spoke with Captain Smith. as per Mr. Smith they have responded to spill and all cleaned up. they have sucked out 120 gal of oil/water mixture from catch basin in boiler room. Visited site. Met with Mr. Chris, tenant and Mr. Joe, a technician who was repairing faulty gauge. as spoke with Mr. Joe, there was a oil leak from pressure gauge on burner. this burner system comes under commercial property management. simultaneously they had water leak from heat pump so oil water mixed in small burner room. this burner room floor has some small cracks and few open spots at wall. some bottles, wood pieces etc. were on floor. when entered into burner room, there was no odor in burner room and the faulty gauge was taken out and pipe was capped with plug. no more leakage observed. there was water on floor close to door leading to walkway towards street. there was one drain in middle of walkway, which is the lowest point of walkway. oil probably went down to this drain. behind the small burner room is the large boiler room having two boilers in it. this boiler room comes under residential management property. and wall between burner room and boiler room has openings between bricks. and as nobody knows what time leakage started, oil went down to large boiler room. this boiler room has one catch basin in corner and one drain in middle of room. spoke with super Mr. Dexter Ghent (ph. 212-362-5108) who is handling residential property. as per Mr. Ghent they have made boiler room floor in last november and drain in boiler room is inactive leading nowhere and filled with cement. floor didn't have any cracks. the catch basin is in corner of boiler room near the entrance door. fire department has removed 120 gal of oil/water mix from this catch basin. as per Mr. Ghent they only run sump pump only they have any water in it. and they never run it in last three months. so no oil went to city sewer system through catch basin pump. fire department has cleaned this boiler room with speedie dry, but there was still strong odor in boiler room as wall toward burner room had little oil on it. this boiler room has one door and one small opening at other end in wall between burner room and boiler room. small fan was running inside boiler room throwing out air from boiler room as door kept open, but this fan was not

sufficient. there were no odor in other part of building or upstairs in commercial/residential area except that large boiler room. commercial facility using #2 oil and residential facility is using #4 heating oil.

based on site observations, i recommended Mr. Ghent to replace soaked speedie dry with fresh one, to remove remaining water from catch basin, put some absorbent pads to remove any oil left in it, to put one big fan outside of boiler room to throw out large amount of air before entering into boiler room for cleaning as they don't have any experience in cleaning oil spill. also asked him to clean burner room as it still had water on floor. Talked with Mr. Jim Reid, who is manager of commercial property, and asked him to clean both burner room and boiler room. also asked Mr. Reid to contact environmental consultant to remaining cleanup and investigation.

Jim Reid 101 W 70 Street Manhattan, NY 10023 Ph. (212) 712-6182 FAX (212) 724-6386

ADDRESS for residential property: Endicott Apartments 101 W 81st Street Manhattan, NY 10024 Ph. (212) 362-5108 FAX (212) 362-0970

because of possible discharge of oil into city sewer through drain in walkway, notified DEP. DEP case # 1307993

03/28/06-Hiralkumar Patel. Spoke with Jim Reid. as per Jim there is no more odor in any part of building. all cleaned up. contaminated material disposed off from site. Spoke with Mr. Ghent on site and there is no more odor in boiler room. there are no cracks in catch basin floor. all cleaned up.

CSL sent out requesting summary of cleanup process, condition of floor and color photographs of floor after cleanup.

04/18/06-Hiralkumar Patel. Received letter and photographs from James Reid. - cause of spill was a faulty pressure gauge on the boiler - fire department vacuumed most of the oil into one 55 gal drum and two 15 gal drums - removed remainder of oil with absorbent material. - condition of the impacted floor area is completely clean of any oil. the composition of the floors are concrete. the floor area in spill has a few small cracks. the floor area in residential boiler room is a new concrete floor, with no cracks. - sump pumps in boiler room were disconnected, removed and cleaned.

invoice from Petroleum Tank Cleaners and contaminated material disposal manifest also attached with letter. photographs looks clear.

Left message for Mr. Ghent. Spoke with Mr. Ghent and he doesn't have any odor complaints. based on available information and photographs, case is closed. NFA letter sent out to Jim Reid. Faxed to Mr. Reid and Mr. Ghent.

Map Identification Number 256**SIDEWALK**

32 WEST 82ND ST

MANHATTAN, NY

Spill Number: 0401035**Close Date: 03/17/2005**

TT-Id: 520A-0093-113

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 327 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

| | | |
|----------------------------|-------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: MARINO | Spiller Phone: (212) 724-0790 |
| Notifier Type: Other | Notifier Name: PASCAL,NICK | Notifier Phone: (201) 489-5100 |
| Caller Name: PASCAL,NICK | Caller Agency: HESS | Caller Phone: (201) 489-5100 |
| DEC Investigator: SMSANGES | Contact for more spill info: MARINO | Contact Person Phone: (212) 724-0790 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 04/29/2004 | | EQUIPMENT FAILURE | YES | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #6 FUEL OIL | PETROLEUM | 10.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

about 10 gallons of #6 oil spilled due to a faulty gauge on the tank.spill is going to be cleaned up

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SANGESLAND Sangesland spoke to Nick Pascal at Hess. He said it was a 10 gal #6 fuel oil spill on the sidewalk. No spill in the basement.

Eastmond was hired to do cleanup.

| | | | |
|--|-----------------------------|------------------------------|-------------------------------|
| Map Identification Number 257 | SPILL NUMBER 0104721 | Spill Number: 0104721 | Close Date: 08/06/2001 |
|  | 32 WEST 82ND ST | MANHATTAN, NY | TT-Id: 520A-0091-250 |

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 327 feet to the NE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|----------------------------------|------------------------------|------------------------------|
| Source of Spill: TANK TRUCK | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Responsible Party | Notifier Name: ISRAIL UNGER | Notifier Phone: |
| Caller Name: SCOTT WILLIAMS | Caller Agency: AMERADA HESS | Caller Phone: (201) 489-5100 |
| DEC Investigator: MXTIPPLE | Contact for more spill info: | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 08/01/2001 | | EQUIPMENT FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 15.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

gauge was not operating correctly causing spill. currently contained and cleanup is scheduled.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIPPLE ROADWAY CLEANED

Map Identification Number 258 **PUBLIC SCHOOL 44**
 100 WEST 77TH ST

MANHATTAN, NY

Spill Number: 9600690

Close Date: 04/15/1996
 TT-Id: 520A-0092-320

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 336 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
 Notifier Type: Other
 Caller Name: GARLAND MCARDLE
 DEC Investigator: JMKRIMGO

Spiller: PUBLIC SCHOOL 44
 Notifier Name: DRIVER – STEVE FLORENO
 Caller Agency: COSTAL OIL CO.
 Contact for more spill info:

Spiller Phone: (718) 361-3700
 Notifier Phone: (718) 746-2458
 Caller Phone: (718) 746-2458
 Contact Person Phone: (718) 361-3700

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 04/15/1996 | | EQUIPMENT FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 10.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

faulty customer hydrometer gadge caused spill onto dirt spill is contained at this time

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was KRIMGOLD CONTAMINATED SOIL REMOVED AND DISPOSED OF

Map Identification Number 259 **COLUMBUS AVE & 76TH ST** **Spill Number: 9509190** **Close Date: 10/25/1995**
 COLUMBUS AVE & 76TH ST MANHATTAN, NY TT-Id: 520A-0092-899

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 337 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: COLUMBUS AVE / W 76TH ST
 Revised zip code: 10024

| | | |
|-----------------------------------|-------------------------------|------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: LIRO CONSTRUCTION OR | Spiller Phone: |
| Notifier Type: Local Agency | Notifier Name: ANNONYMOUS | Notifier Phone: |
| Caller Name: CHARLES LIUZZA | Caller Agency: DEP | Caller Phone: (718) 337-4357 |
| DEC Investigator: SIGONA | Contact for more spill info: | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/25/1995 | | DELIBERATE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN MATERIAL | OTHER | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

CALLER STATES HE RECEIVED CALL FROM PERSON REPORTING SUBJECTS WERE BURYING WHAT APPEARED TO BE A JUNK OIL TANK

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 260

MARBOROS REALTY

Spill Number: 1501064

Close Date: 07/10/2015



22 WEST 77TH ST

NEW YORK, NY

TT-Id: 520A-0308-993

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 353 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL VEHICLE
 Notifier Type: Other
 Caller Name:
 DEC Investigator: HRPATEL

Spiller: JOSEPH ZUBIN – UNITED METRO ENERGY
 Notifier Name:
 Caller Agency:
 Contact for more spill info: JOSEPH ZUBIN

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (347) 539-1477

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 04/30/2015 | | EQUIPMENT FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #4 FUEL OIL | PETROLEUM | 5.00 | GALLONS | 0.00 | GALLONS | |

Caller Remarks:

Gauge not working correctly on bld equipment, millro en rte for c/u

DEC Investigator Remarks:

5/1/15: Mahat DEC Mahat contacted Mr. Joseph Zubin @ 347.539.1477 United Metro Energy inquiring about the spill and its nature. Spill occurred during the delivery due to faulty electronic meter and petro-meter. Approximately 10 gallon #4 fuel oil was strictly spilled from the vent line impacting the soil/ grass under the vent port. There spill inside the building. Milro Environmental was on site to remove the contaminated soil from the site and collect an end point sample for the confirmation. A spill closure report including manifest will be submitted to DEC Attention.

PBS: 2-420999

An email was sent out to the management shortly after the phone conversation to repair the spill prevention equipment.

Mr. Howard D. Ohayon,

As per our phone conversation, please provide the confirmation that petro-meter has been fixed and properly calibrated prior to next delivery. Once, I reviewed the confirmation I will promptly remove the hold status on my database.

Let me know if you have any question and concerns about this email.

DEC is waiting for spill closure report and spill prevention equipment repair report.

05/07/15–Hiralkumar Patel. 8:37 AM:– received email from Dot including lab result of four soil samples. soil samples were collected from bottom, east sidewall, west sidewall and north sidewall. no contamination noted in samples. Dot inquired if they can backfill the excavation. email is missing information about excavation size and south sidewall sample result. 2:13 PM:– sent email to Dot and asked to submit site map with excavation dimensions and sample locations. 2:48 PM:– received email from Dot including site map. the south sidewall of the excavation was the building's foundation wall. less than 10 ppm recorded on PID in endpoint samples. excavation was 3 ft by 5 ft by 2 ft in size. 3:15 PM:– sent email to Dot. informed her that based on submitted information, no further remediation is needed outside the building and excavation can be backfilled. inquired her about spill cleanup inside the building. 3:41 PM:– received email from Dot stating that there was no impact to the interior of the building and spill was all outside.

6/16/15: Mahat DEC Mahat received an confirmation from the Management that petrometer has been finxed via email. Petrometer is working fine

Please close file and allow oil deliveries

H. David Ohayon Marbrose Realty 43 west 75 New York NY 10023

07/10/15–Hiralkumar Patel. received email from Dot (at 1:07 PM on 06/05/15) including closure report.

case closed.

Map Identification Number 261



SPILL NUMBER 0211129

22 WEST 77TH ST

MANHATTAN, NY

Spill Number: 0211129

Close Date: 02/06/2003

TT-Id: 520A-0091-401

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 353 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL VEHICLE

Notifier Type: Responsible Party

Caller Name: JOHN BARRICELLA

DEC Investigator: RWAUSTIN

Spiller: CALLER – T & S TRUCKING CO

Notifier Name:

Caller Agency: T & S TRUCKING CO.

Contact for more spill info: CALLER

Spiller Phone:

Notifier Phone:

Caller Phone: (718) 499-2900

Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 02/06/2003 | | EQUIPMENT FAILURE | YES | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #4 FUEL OIL | PETROLEUM | 10.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

spill went to sidewalk and street. fill box failure. cleanup crew on scene.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was AUSTIN 2/6/03 – AUSTIN, DDO – SPOKE WITH SPILLER (T&S TRUCKING AND SITE MGT. AGENT (MARBROSE REALTY – DAVID – 212-769-3706) – SPILL OCCURED WHEN NOZZLE WAS IMPROPERLY CONNECTED TO FILL BOX, AND DISCONNECTED HALFWAY THROUGH 2000 GAL. DELIVERY – DELIVERY WAS STOPPED, AND IMPACT WAS TO SIDEWALK AND GUTTER – RP CLEANED UP WITH DRISORB – RP WILL DO PRESSURE WASH TO COMPLETE CLEANUP TO SATISFACTION OF MGT. AGENT. CLOSE

Map Identification Number 262

APARTMENT
15 WEST 81ST ST

MANHATTAN, NY

Spill Number: 0909623

Close Date: 12/01/2009
TT-Id: 520A-0233-973

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 361 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
Notifier Type: Other
Caller Name:
DEC Investigator: smsanges

Spiller: LEWIS MARTIN – LEWIS MARTIN
Notifier Name:
Caller Agency:
Contact for more spill info: MILLIE LOPEZ

Spiller Phone:
Notifier Phone:
Caller Phone:
Contact Person Phone: (718) 579-3413

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 11/30/2009 | | EQUIPMENT FAILURE | NO | | | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | PETROLEUM | 30.00 | GALLONS | 0.00 | GALLONS | |

Caller Remarks:

Caller reporting 30 gallons of #6 fuel oil spilled to ground. clean up in progress.

DEC Investigator Remarks:

11/30/2009 4PM – Piper spoke to Millie Lopez at Castle Oil. She was sending a crew to the site to cleanup. Oil came out the vent line onto Cement area and a grated sump like area. Spill is contained and is being cleaned up. Need to call in the morning to confirm cleanup. 12/01/2009 – Sangesland spoke to Millie at Castle. Cleanup was completed, most of the oil was contained in a small grated box area. Everything was contained and cleanup went well.

Map Identification Number 263 **60 WEST 76TH ST** **Spill Number: 9702507** **Close Date: 05/29/1997**
 **60 WEST 76TH ST** **MANHATTAN, NY** **TT-Id: 520A-0092-418**

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 402 feet to the SSW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: MIKE HELFONT – MYSTIC TRANSPORTATION Spiller Phone: (718) 932-9075
 Notifier Type: Responsible Party Notifier Name: GREG BALDARI Notifier Phone:
 Caller Name: MIKE HELFONT Caller Agency: MYSTIC TRANSPORTATION Caller Phone: (718) 932-9075
 DEC Investigator: WESTERLIND Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 05/29/1997 | | EQUIPMENT FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 10.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

gauge was off and driver overfilled tank – spill crew on way to clean up

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 264  **129 WEST 77TH STREET** **Spill Number: 9308723** **Close Date: 10/19/1993**
 129 WEST 77TH STREET MANHATTAN, NY TT-Id: 520A-0092-002

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 409 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|------------------------------|------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: | Spiller Phone: |
| Notifier Type: Other | Notifier Name: | Notifier Phone: |
| Caller Name: FRANK O'DONNELL | Caller Agency: BAERENKLAU | Caller Phone: (718) 647-4200 |
| DEC Investigator: CAMMISA | Contact for more spill info: | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 10/19/1993 | 10/19/1993 | EQUIPMENT FAILURE | UNKNOWN | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | SOIL |

Caller Remarks:

VENT PLUGGED (PIPE) – CLEANED UP W/ SPEEDY DRY.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

10/10/95: This is additional information about material spilled from the translation of the old spill file: 1 PINT.

Map Identification Number 265

APT BUILDING
127 WEST 79 ST

MANHATTAN, NY

Spill Number: 1007020

Close Date: 12/04/2012
TT-Id: 520A-0255-645

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 414 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: 127 W 79TH ST
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
Notifier Type: Other
Caller Name:
DEC Investigator: SFRAHMAN

Spiller: MICHAELLE MCCARTHY – CH GREENTHAL
Notifier Name:
Caller Agency:
Contact for more spill info: CH GREENTHAL MCCARTHY

Spiller Phone:
Notifier Phone:
Caller Phone:
Contact Person Phone: (212) 340-9300

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 09/29/2010 | | EQUIPMENT FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | |

Caller Remarks:

7000gal agt/unsure if there is contamination under tank

DEC Investigator Remarks:

Sangesland spoke to Jerry at Controlled Combustion. He said the tank is wrapped in cement block in the basement. Oil started coming through the weep holes under the tank enclosure. Tank was drained and temp tank set up. They have the building engineer making drawings for a new tank.

Sangesland asked Jerry to break a 1ft x 1 ft hole near the weep hole to look under the tank and see how much of a spill problem is there. Jerry will do this in the next 1-2 days and set up a time for DEC to visit the site.

12/04/12 AST has been removed from the property. End point sample shows residual contamination within acceptable range. The cement floor under the tank was in good condition. Case closed.(sr)

Map Identification Number 266 **APARTMENT COMPLEX**
 11 WEST 81ST ST

NEW YORK, NY

Spill Number: 9700916

Close Date: 04/21/1997
 TT-Id: 520A-0092-408

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 423 feet to the ENE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Other
 Caller Name: JIM CAREY
 DEC Investigator: SMMARTIN

Spiller: JOE - APARTMENT COMPLEX
 Notifier Name: CARLOS FIGUEROA
 Caller Agency: CASTLE OIL CORPORATION
 Contact for more spill info: JOE

Spiller Phone: (212) 877-8944
 Notifier Phone: (718) 579-3414
 Caller Phone: (718) 579-3414
 Contact Person Phone: (212) 877-8944

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 04/21/1997 | | TANK OVERFILL | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 10.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

OVERFILL OF A STORAGE TANK CAUSED SPILL ONTO A CONCRETE BACK YARD CLEAN UP CREW IS ENROUTE AT THIS TIME

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was MARTINKAT

Map Identification Number 267 **ALLEYWAY - DRUM RUN**
 11 W.81ST STREET

MANHATTAN, NY

Spill Number: 1203278

Close Date: 08/02/2012
 TT-Id: 520A-0275-647

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 423 feet to the ENE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: unk Spiller Phone:
 Notifier Type: Other Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: Caller Phone:
 DEC Investigator: RMPIPER Contact for more spill info: FF MULLEN Contact Person Phone: 212-570-4244

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 07/03/2012 | | ABANDONED DRUM | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| GASOLINE | PETROLEUM | 0 | UNKNOWN | 0 | UNKNOWN | |

Caller Remarks:

2 5 GALLON CANS OF GASOLINE, LEAKING SLOWLY. CONFINED TO DRUM BY FD.

DEC Investigator Remarks:

8/1/12- referred to NYC DEP Hazmat as it was gasoline. Not found. Closed.

Map Identification Number 268 **35 W. 82ND ST**
 35 W. 82ND STREET

MANHATTAN, NY

Spill Number: 9415054

Close Date: 06/20/1995
 TT-Id: 520A-0092-153

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 436 feet to the NE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER Spiller: SAME Spiller Phone:
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:
 Caller Name: MARC POSEN SUMMIT Caller Agency: SUMMIT TRANSPORT Caller Phone: (201) 836-4220
 DEC Investigator: SMMARTIN Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 02/16/1995 | 06/20/1995 | EQUIPMENT FAILURE | UNKNOWN | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | PETROLEUM | 10.00 | GALLONS | 10.00 | GALLONS | SOIL |

Caller Remarks:

FAULTY GAUGE – CLEANED UP. CALLER STATED SUPERINTENDANT OF COMPLEX WAS ON SCENE. BUT DID NOT HAVE NAME OR PHONE NUMBER FOR HIM.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was MARTINKAT

Map Identification Number 269

BASEMENT

131 WEST 78TH ST



MANHATTAN, NY

Spill Number: 1214810

Close Date: 01/31/2013

TT-Id: 520A-0280-960

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 444 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Responsible Party

Caller Name:

DEC Investigator: HRPATEL

Spiller: ANDREW – FRED M SCHILDWALHTER AND SONS

Notifier Name:

Caller Agency:

Contact for more spill info: ANDREW

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: (718) 828-2500

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/21/2013 | | EQUIPMENT FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | 5.00 | GALLONS | 0.00 | GALLONS | |

Caller Remarks:

5 gal spilled to concrete. Clean up is pending crew arrival.

DEC Investigator Remarks:

01/23/13--Hiralkumar Patel. alternate addresses: none no PBS or other spills found.

11:46 AM:-- spoke with Andrew. he mentioned that FDNY reported spill to them as found oil in tank room. during oil delivery, oil came out of gauge line and spill around tank. oil company crew has cleaned the spill and replaced gauge line. they will go back today to check. asked Andrew to call after today's inspection.

11:54 AM:-- left message for previous owner, who sold property recently.

Realty Corp. PH. (212) 787-7335

previous owner

01/29/13--Hiralkumar Patel. received message from Jean Dennison (at 11:35 AM on 01/28/13), property owner.

Jean Dennison

property owner Ph. (914) 772-5649

1:27 PM:-- left message for Jene.

01/31/13--Hiralkumar Patel. 1:40 received call from Ms. Dennison. she mentioned that some oil came out of gauge on tank top during delivery. oil company has cleaned the spill. she mentioned that the site has two 275 gal ASTs on legs. she confirmed no leak from tank bottom and no more odors in building.

case closed.

Map Identification Number 270



ROXY HARDWARE

469 COLUMBUS AVE

MANHATTAN, NY

Spill Number: 0010667

Close Date: 01/12/2004

TT-Id: 520A-0101-371

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 477 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

| | | |
|--|--|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: PETRO OIL – PETRO OIL | Spiller Phone: (718) 628–3300 |
| Notifier Type: Responsible Party | Notifier Name: ED RUSSELL | Notifier Phone: (718) 628–3300 |
| Caller Name: JOANNE LOENING | Caller Agency: PETRO OIL | Caller Phone: (718) 628–3300 |
| DEC Investigator: JMKRIMGO | Contact for more spill info: PETRO OIL | Contact Person Phone: (718) 628–3300 |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/23/2000 | | HUMAN ERROR | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #2 FUEL OIL | PETROLEUM | 275.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

OIL DELIVERY AT ABOVE LOCATION. DRIVER PUT MATERIAL INTO ABANDONED TANK BY ERROR. MATERIAL SPILLED IN BASEMENT. CREW ON SITE AND CONTAINMENT/CLEANUP IN PROGRESS. TOTAL AMOUNT OF DELIVERY WAS 275 GALLONS.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was KRIMGOLD Some oil went thru the cracks in the concrete floor. Cont. soil will be removed by Milro. Also will take post-excavation samples and report back to DEC.

1/11/01. According to the soil analytical results presented by Milro, no residual contamination above TAGM numbers left in soil. NFA.

Map Identification Number 271 **APARTMENT BUILDING**
 135 WEST 79TH ST

MANHATTAN, NY

Spill Number: 1004259

Close Date: 01/24/2011
 TT-Id: 520A-0253-034

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 486 feet to the WNW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PASSENGER VEHICLE
 Notifier Type: Other
 Caller Name:
 DEC Investigator: RMPIPER

Spiller: CRAIG HEARD – CO-OP BUILDING
 Notifier Name:
 Caller Agency:
 Contact for more spill info: MARK SALANICK

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (917) 559-5519

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 07/16/2010 | | EQUIPMENT FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #6 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | |

Caller Remarks:

Caller reporting a spill of #6 Fuel oil to floor. Clean up is pending.

DEC Investigator Remarks:

As per Mark, two problems with this tank.

1) Leaking fill line which runs along an old coal chute to the basement. 2) Tank itself appears to be leaking, but the owners don't want to test it. They need to clean the tank room to be able to monitor if the tank is actually leaking.

DEC recieved clore report documenting cleanup and tank removal. See edocs if warranted. Spill closed.

Map Identification Number 272 **473 COLUMBUS AVE/81 & 82**
 473 COLUMBUS AVE/81 & 82

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 528 feet to the NNE

NEW YORK, NY

ADDRESS CHANGE INFORMATION
 Revised street: 473 COLUMBUS AVE
 Revised zip code: 10024

Spill Number: 9607793

Close Date: 09/24/1996
 TT-Id: 520A-0093-195

Source of Spill: COMMERCIAL VEHICLE Spiller: CALLER – CON ED Spiller Phone:
 Notifier Type: Responsible Party Notifier Name: NR BRENNEN Notifier Phone:
 Caller Name: LISA PRIMEGGIA Caller Agency: CON ED Caller Phone: (212) 580-6763
 DEC Investigator: JHOCONNE Contact for more spill info: CALLER Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 09/20/1996 | | EQUIPMENT FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| ANTIFREEZE | OTHER | 1.00 | GALLONS | 1.00 | GALLONS | SOIL |

Caller Remarks:

BEOKEN HEATER HOSE

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL

Map Identification Number 273 **WEST 79TH STREET AND CENTRAL PARK** **MANHATTAN, NY** **Spill Number: 0105883** **Close Date: 07/29/2002**
 TT-Id: 520A-0288-326

MAP LOCATION INFORMATION
 Site location mapped by: MANUAL MAPPING (4)
 Approximate distance from property: 529 feet to the ESE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: 10024

Source of Spill: COMMERCIAL VEHICLE Spiller: SERGIO WONG – NYC TRANSIT AUTHORITY Spiller Phone:
 Notifier Type: Responsible Party Notifier Name: SAME Notifier Phone:
 Caller Name: MR SERGIO WONG Caller Agency: NYC TRANSIT AUTHORITY Caller Phone: (718) 243-4891
 DEC Investigator: MCTIBBE Contact for more spill info: SERGIO WONG Contact Person Phone: (718) 243-4891

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 08/31/2001 | | EQUIPMENT FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| MOTOR OIL | PETROLEUM | 6.00 | GALLONS | 6.00 | GALLONS | SOIL |

Caller Remarks:

BUS NUMBER 1021 MOTOR OIL LINE LEAKED CAUSING THE SPILL

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIBBE CONTAINED AND CLEANED BY NYCT.

Map Identification Number 274

8223

211 CENTRAL PARK WEST

MANHATTAN, NY

Spill Number: 9906089

Close Date: 11/02/2004

TT-Id: 520A-0097-034

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)

Approximate distance from property: 542 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: 10024

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Responsible Party

Caller Name: RICHARD ROACH

DEC Investigator: JHOCONNE

Spiller: CON EDISON

Notifier Name: DENNIS ROMANO

Caller Agency: CON EDISON

Contact for more spill info:

Spiller Phone: (212) 580-6763

Notifier Phone: (212) 338-3352

Caller Phone: (212) 580-6763

Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 08/21/1999 | | EQUIPMENT FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| TRANSFORMER OIL | PETROLEUM | 2.00 | GALLONS | 2.00 | GALLONS | SOIL |

Caller Remarks:

VAULT 8223. LEAK FROM TRANSFORMER. CONTAINED WITHIN VAULT. HISTORICAL DATA INDICATES 81 PPM OF PCB'S. SAMPLES TAKEN. CLEAN UP PENDING TEST RESULTS. CON EDISON REFERENCE NUMBER 127351.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL

E2MIS 127351

08/21/99 10:08 L.ROMAN #27270 OP.SUP.I&A REPORTS: R.SCALIA #27138 I&A ON ROUTINE WORK IN VAULT 8223 FOUND APPROX. 2 GALS OF OIL FROM BOTTOM LEAK OF TRANSFORMER ON APPROX. 30 GALS OF WATER. NO VISUAL MOVEMENT, NO WATERWAY, NO SMOKE, NO FIRE, NO SUMP, NO CRACKS, NO SEWER, NO SEWER CONECTION, NO SUMPUMP. TOOK SAMPLE AND HUNG SIGN # 17759. * VAULT HAS WEEP HOLES THAT WERE FOUND CLOGGED TO AJACENT VAULT, AJACENT VAULT HAS A SUMP AND PUMP WHICH WAS PLUGGED IN. HAVE NO SIGN OF OIL IN THIS VAULT OR SUMP, UNPLUGGED PUMP AND BLOCKED WEEP HOLES. HAVE PCB 81PPM FROM HISTORY IN V-8223

RESULTS OF LAB ANALYSIS 99-08784 RECEIVED ON 8/21/99 @1746 HRS. AROCLOR 1254 PCB 114 PPM.

8/22/99 I&A OS Roman #27270 reports transformer and vault drained of di-electric fluid by Astoria >50PPM tanker. In accordance with Astoria records, tanker drained 396 gallons. In accordance with CINDE database, maximum capacity of transformer is 385 gallons. Also, secondary disconnect was started. After drain, two 50lb bags of oil absorbant were placed on vault floor. Final cleanup is pending transformer removal.

6/23/00 20:00 OGS R. Oniell (56615) reports cleanup completed by G. Anelli (14059) I&A. 200 gal liuid removed via over 50 PPM Corporate Tanker. 4 drum solid debris removed directly from site via Transportation Barrel lick up from site. Debirs transported to Astoria via Corporate transportation. Cleanup complete.

Transformer replaced 6/23/2000.

Map Identification Number 275



211 CENTRAL PARK W/MANH

211 CENTRAL PARK WEST

MANHATTAN, NY

Spill Number: 9010890

Close Date: 01/11/1991

TT-Id: 520A-0097-033

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)

Approximate distance from property: 542 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: 10024

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: BERESFORD APT COMPLEX Spiller Phone: (212) 787-2100
 Notifier Type: Other Notifier Name: Notifier Phone:
 Caller Name: NESTOR PARALITITI Caller Agency: HESS Caller Phone: (201) 489-5100
 DEC Investigator: O'DOWD Contact for more spill info: Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/11/1991 | 01/11/1991 | TANK OVERFILL | UNKNOWN | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | PETROLEUM | 3.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

TANK GAUGE MALFUNCTION,OIL CAME OUT OF VENT, SPILL CONTAINED ON WALL & SIDEWALK, SUPER & DRIVER DOING CLEAN UP.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 276 **CENTRAL PARK** **Spill Number: 0812909** **Close Date: 03/02/2009**
 211 CENTRAL PARK WEST NEW YORK, NY TT-Id: 520A-0226-327

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (2)
 Approximate distance from property: 542 feet to the ENE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: 10024

Source of Spill: COMMERCIAL VEHICLE Spiller: RAYMOND ROVINO - HESS OIL Spiller Phone:
 Notifier Type: Other Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: HESS Caller Phone:
 DEC Investigator: vszhune Contact for more spill info: RAYMOND ROVINO Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 02/27/2009 | | EQUIPMENT FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | PETROLEUM | 10.00 | GALLONS | 0.00 | GALLONS | |

Caller Remarks:

Equipment failure on delivery truck for heating oil; cleanup crew is en route. No water, soil or drains involved.

DEC Investigator Remarks:

02/27/09–Zhune spoke to Ray Rovino from Hess Oil (201)4371017. he said the hose got disconnected from the fill line due to mechanical failure. Approximately 5–10 gallons of #6 oil went to the side walk and run down about 30–40 ft on the curb. No sewer, no soil impacted. A Hess Oil crew did the cleaned up. Spill Closed.

Map Identification Number 277 **34–36 WEST 83RD ST**
 34–36 WEST 83RD ST

Spill Number: 9711001 **Close Date: 02/19/2003**
 MANHATTAN, NY TT–Id: 520A–0089–877

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 568 feet to the NE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|-------------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: CALLER – 34–36 83RD ST | Spiller Phone: (718) 932–9075 |
| Notifier Type: Responsible Party | Notifier Name: CHARLIE BOETTIGER | Notifier Phone: (718) 932–9075 |
| Caller Name: CHARLIE BOETTIGER | Caller Agency: MYSTIC OIL | Caller Phone: (718) 932–9075 |
| DEC Investigator: TOMASELLO | Contact for more spill info: CALLER | Contact Person Phone: (718) 932–9075 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 12/31/1997 | | EQUIPMENT FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 25.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

caller stated that a bad fill line in building caused leak, in basement to building.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 278 **7,9,11 WEST 82ND ST/MANH**
 7,9,11 WEST 82ND STREET

NEW YORK CITY, NY

Spill Number: 8903548

Close Date: 07/10/1989
 TT-Id: 520A-0093-132

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)
 Approximate distance from property: 600 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Federal Government
 Caller Name: MARGARET CHONG
 DEC Investigator: SIGONA

Spiller:
 Notifier Name:
 Caller Agency: USEPA
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone: (201) 458-8730
 Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 06/30/1989 | 07/10/1989 | HOUSEKEEPING | UNKNOWN | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | -1.00 | UNKNOWN | 0.00 | UNKNOWN | SEWER |

Caller Remarks:

CONTRACTOR REMOVED ASBESTOS, PUT IN 40FT TRAILOR (OPEN TOP), CONTRACTOR PARKED TRAILER IN FRONT OF HOUSE, RAIN WASHED ASBESTOS ON STREET & IN SEWER, DAY CARE CENTER NEARBY.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

07/10/89: DEC NOTIFIED DEP, NYCDOS ENVIRON ENFORCEMENT & ECO RIVERA, INVESTIGATION & CLEAN UP WILL BE ORDERED IF SPILL IS CONFIRMED.

Map Identification Number 279 **8 OZ IN MANHOLE # 30582** **Spill Number: 0613236** **Close Date: 04/24/2007**
 WEST 75 STREET & COLUMBUS AVE MANHATTAN, NY TT-Id: 520A-0089-978

MAP LOCATION INFORMATION
 Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 600 feet to the SW

ADDRESS CHANGE INFORMATION
 Revised street: W 75TH ST / COLUMBUS AVE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: ERTS – CON EDISON MH # 30582 Spiller Phone: (212) 580-8383
 Notifier Type: Local Agency Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: Caller Phone:
 DEC Investigator: gdbreen Contact for more spill info: ERTS Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 03/09/2007 | | EQUIPMENT FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIELECTRIC FLUID | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

SPILL AMOUNT IS 8 OUNCES, CLEANUP PENDING EQUIPMENT BEING TAKEN OUT OF SERVICE: CONED # 204856

DEC Investigator Remarks:

04/24/07 – See e-docs for Con Ed report detailing cleanup and closure. 204856. see eDocs

Map Identification Number 280 **27 W 74TH STREET** **Spill Number: 8911278** **Close Date: 03/10/2003**
 27 W 74TH STREET MANHATTAN, NY TT-Id: 520A-0091-740

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 849 feet to the SSW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: SAME Spiller Phone:
 Notifier Type: Other Notifier Name: Notifier Phone:
 Caller Name: RICH HOUSTON Caller Agency: BARENKLAU OIL CO. Caller Phone: (718) 647-4200
 DEC Investigator: FINGER Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 02/27/1990 | | EQUIPMENT FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|--------|--------------------|--------|----------------------|
| #2 FUEL OIL | PETROLEUM | 100.00 | POUNDS | 0.00 | POUNDS | SOIL |

Caller Remarks:
 FUEL LEAKED ONTO CONCRETE.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 281 **BASEMENT** **Spill Number: 1402418** **Close Date: 02/02/2015**
 175 W 76TH ST NEW YORK, NY TT-Id: 520A-0298-360

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 901 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: PROPERTY OWNER Spiller Phone:
 Notifier Type: Other Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: FRANK GALDUN Caller Phone:
 DEC Investigator: HRPATEL Contact for more spill info: Contact Person Phone: (646) 542-3465

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
|------------------|---------------------|-------------------|-------------------------|---------|---------------------|---------|----------------------|
| 06/04/2014 | | EQUIPMENT FAILURE | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | | PETROLEUM | 200.00 | GALLONS | 0.00 | GALLONS | |

Caller Remarks:

Caller advised aprx 200 gal of oil spilled into basement. Clean up is pending.

DEC Investigator Remarks:

6/4/14 TJD Teleconference with Frank Galdun (environmental consultant). Two open spills are currently being managed by Patel at this property (1402418 & 1309030). New report is associated with a technician working on heating system who changed position on a temporary valve causing the current tank temporary tank system to discharge return (unburned) product through old out of service overhead piping to the former AST location in an adjacent room. Product migrated over concrete surfaces and entered a sump pit (4x4x3). Super is reported to have contained and recovered most product with the exception of the sump. At time of phone contact – Frank indicated PAL Environmental was retained to pump sump with an expected ETA on Friday 6/6/14. DeMeo informed Frank this plan was unacceptable and reuired the building owner's to retain a qualified contractor to pump out sump, pressure wash affected concrete surfaces (recover wash water), evaluate vapor impacts and mitigate with ventilation equipment as necessary. Zhune was dispatched as AH Secondary to inspect. As Patel has several open spills on this site – spill will be managed to closure with other open spills. Zhune to enter notes and photos from inspection results.

6/6/14– Zhune responded to this site. Met Frank Galdum from Merril Environmetal as per Frank the plumber was doing repair in a pipe around the boiler and mistakenly turned the valve, oil flow throught the abandoned supply line and discharged into the former tank room. The oil moved from the tank room into the sump pump located in the boiler room and into a small area of soil located close to the sump. There was little oil odor in the basement. I inspected the floor on top of the boiler. There are a doctor's office and one apartment in this floor. There was no odors in the doctor office. I spoke to the tenant of the apartment and he said no odor in his apartment. Frank said he was trying to contact the owner of the buidlding to hire a contractor to pump the sump that nigh tbut because of the jwch hollyday could not get him. He said that tomorrow 6/5/14 in the morning PAL Environmental will clean the spill. I asked Frank to cover the sump with plastic and before to leave the site I checked an the sump was covered with plastic.

6/6/14–Frank called and said PAL has couple of days cleaning up the spill. They pumped out the oil from the sump. They are reomving the soil from the small area close to the sump and they are removing the debris from the tank room.

06/16/14–Hiralkumar Patel. 8:04 AM:– received message from Frank. 9:18 AM:– spoke with Frank. he mentioned that someone opened valve on old return line on boiler. so oil spilled onto former tank room floor (as tank removed) and pooled along wall between former tank and boiler room. from there, oil seeped under boiler room floor. currently, contractor is removing floor around boiler room sump and will continue remediation. he also mentioned that no product noted in monitoring well installed in sewer

trap pit area. asked Frank to sent email with update on all three spills.

06/25/14–Hiralkumar Patel. 11:27 AM:– sent email to Frank inquiring update.

06/30/14–Hiralkumar Patel. 9:58 AM:– received email from Frank. this spill was reported due to floating heating oil in the basement sump pit adjacent to the exterior side of the AST vault wall. initially, the accumulated product was thought to have been caused by an oil leak from the overhead portion of the abandoned feed pipe that formerly led from the AST to the boiler. while this pipe did leak a minor amount of product (which was cleaned up), the actual discharge occurred at the base of the feed line in the boiler room (a portion of this feed line is underground beneath the two boilers). the basement floor was opened in this area and impacted soil and free product was removed. in addition, a vacuum truck was used on three separate occasions to remove water and oil from the basement sump. the leaking pipe has been entirely disconnected from the system. a minor volume of water does accumulate in the sump, but it is currently free of product. as a precaution, sorbent pads are placed on the water to absorb residual product that may accumulate but it is believed that remediation was successful. monitoring of conditions in the sump shall be conducted to verify that product is not re-accumulating. the soil removed from beneath the floor slab was resting directly on bedrock. the sump pit is concrete-lined and is approximately four feet wide, four feet long and four feet deep.

09/26/14–Hiralkumar Patel. 4:03 PM:– sent email to Frank inquiring updates. email copied to Mr. Eisenberg.

11/12/14–Hiralkumar Patel. 1:08 PM:– left message for Frank. 1:18 PM:– received call from Frank. they are still collecting minor product from the sump. he will send email with update. 1:44 PM:– received email from Frank including update. two subsequent visits to the Site with PAL Environmental included additional water removal and removal of an additional portion of the floor slab to access and drum oil-impacted fill and rock under the slab. liquids in the sump have also been pumped out on these occasions. the most recent of these subsequent events was Friday, November 7, 2014. at that time product was observed as a slight sheen on the water in the sump with no observed intrusion of additional oil. one final visit will be conducted to clean the sidewalls of the sump and to remove the oil sheen. a full report on the activities completed at the site will be prepared after the final visit.

02/02/15–Hiralkumar Patel. 3:20 PM:– received email from Frank including cleanup report.

02/05/15–Hiralkumar Patel. case closed based on available information. 2:36 PM:– sent spill closure letter to Ms. Eisenberg. letter emailed to Ms. Eisenberg and Frank.

also refer spill #: 1309030 and 1311311.

Map Identification Number 282



54 WEST 74TH ST

54 WEST 74TH ST

MANHATTAN, NY

Spill Number: 9511281

Close Date: 11/22/1996

TT-Id: 520A-0095-769

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 930 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: SEMOR Spiller Phone: (212) 496-7841
 Notifier Type: Other Notifier Name: SEMOR Notifier Phone: (212) 496-7841
 Caller Name: BOB DECK Caller Agency: PETROLEUM TANK CLEANERS Caller Phone: (718) 624-4842
 DEC Investigator: MCTIBBE Contact for more spill info: SEMOR Contact Person Phone: (212) 496-7841

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 12/07/1995 | | EQUIPMENT FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #6 FUEL OIL | PETROLEUM | 100.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

CLOGGED VENT CAUSED OVERFILL LOOSING MANHOLE AND OIL SPRAYING OUT ENROUTE NOW FOR ASSESSMENT AND CLEAN UP

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIBBE MARK TIBBE WAS DOWN AT SITE ON DEC 6, 1995 AT 12:00 PM/COMING ON MONDAY DEC. 11, 1995 – MORNING PTC. CLEANED BY PTC.

Map Identification Number 283 **54 WEST 74TH STREET CONDO** **Spill Number: 9511197** **Close Date: 11/22/1996**
 54 WEST 74TH STREET MANHATTAN, NY TT-Id: 520A-0095-768

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 930 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: SHEFKI MARDJEKAJ – 54 WEST 74TH STREET CONDO Spiller Phone: (212) 496-7841
 Notifier Type: Responsible Party Notifier Name: SHEFKI MARDJEKAJ Notifier Phone: (212) 496-7841
 Caller Name: SHEFKI MARDJEKAJ Caller Agency: 54 WEST 74TH STREET CONDO Caller Phone: (212) 496-7841
 DEC Investigator: MCTIBBE Contact for more spill info: SHEFKI MARDJEKAJ Contact Person Phone: (212) 496-7841

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 12/02/1995 | | TANK OVERFILL | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | PETROLEUM | 200.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

OVERFILL CAUSED ENOUGH PRESSURE TO BLOW OFF MAN HOLE ON TANK. INTO CONCRETE BASEMENT. CONTAINED WITHIN BASEMENT. UNKNOWN CONTRACTOR TO BE CALLED TO PUMP OUT PRODUCT AND STEAM CLEAN BASEMENT. MAN HOLE TO BE CHECKED AND REPAIRED AS NECESSARY.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIBBE CLEANED BY RP. TANK REPAIRED.

Map Identification Number 284

RESIDENT

54 WEST 74TH STREET

NEW YORK, NY

Spill Number: 1407071

Close Date: 04/06/2016

TT-Id: 520A-0300-704

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 930 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING

Notifier Type: Other

Caller Name:

DEC Investigator: vszhune

Spiller: GLEN - MILLROSE

Notifier Name:

Caller Agency:

Contact for more spill info: GLEN

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: (646) 489-1123

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 10/06/2014 | | EQUIPMENT FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #4 FUEL OIL | PETROLEUM | 100.00 | GALLONS | 0.00 | GALLONS | |

Caller Remarks:

caller reporting that a 3,000 gallon oil tank had a spill of approx 100 gallons, spill happened after driver left after filling tank, no resurces affected

DEC Investigator Remarks:

10/7/14–Zhune responded this spill. Met Glen(Managing Agent). As per Glen the building received an oil delivery today. After the delivery someone complained oil smell. Glen went to the basement of the building and search the smell and found approximately 100 gallons of oil #4 on the floor of the basement where a part of the fill line is located. Glen called the oil company. The oil company recommended him to call Riteway. I observed oil on the floor of a store room and oil seeping to the next room. The spill was contained with speedi-dry. There was no odor inside the building. Rite way was on the site doing the cleanup. They are going to perform a subsurface invetigation since the floor was not solid with cracks. Glen also said that apparently the connection of the fill line broke and caused the spill.

3/18/15–David Chan sent the following email. Since the update that Rob Hill sent, the client requested that we type them a letter regarding the additional remediation/work needed for 54 West 74th, so that they can submit it to their insurance company (please see attached). We have not heard back yet from them.

Their contact info:

Marbrose Realty 43 West 75th St ~ suite-C New York, NY

917-751-1478 Contact: Francisco

4/6/16–David Chan from Rite way email two spill closure letters, the site plan, the soil analytical results and waste manifest. The letters stated that Riteway Tank Maintenance Corp. was contracted to remediate subsurface contamination that occurred on October 6, 2014. A total of 23 drums of impacted soil and material were removed from the impacted area. Letter sent 4/5/16 at 4:13pm said a total of 4 endpoint samples were taken on October 28 2014. Letter sent 4/5/17 at 5:16 pm said 4 borings/samples were taken on October 28, 2014.

Samples return November 12, 2104 and all 4 endpoint samples taken contined anlytes from both semi volatile and volatiles organic compounds exceeded NYSDEC CP-51 Soil Cleanup Gidance Policy.

Further remediation of the area is required in order to remove the remaining impacted soil in the excavation. Once all contamination has been remediated an end point sample will be retrieved and sent to a certified lab for analysis.

An additional 63 drums was remediated from the area. Per request of the NYSDEC a water sample was taken of the area due to remediation reaching bedrock as directed, the results returned negative from contamination and within State regulatory limits.

The area is clean and free of contamination.

As per the Riteway letter the area was excavated two times. Soil is all excavated after second excavation. Due to DEC site visit

no further excavation possible due to bedrock on sides and bottom. No sheen on groundwater and spill closed as per discussed with J. Vought.

Map Identification Number 285

VAULT #6342

Spill Number: 9606147

Close Date: 02/09/2005



IFO 453 AMSTERDAM AVE

MANHATTAN, NY

TT-Id: 520A-0098-766

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 959 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: 10024

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Responsible Party
 Caller Name: LISA PRIMEGGIA
 DEC Investigator: JHOCONNE

Spiller: TIM SOILCH – CON EDISON
 Notifier Name: JAY USINO
 Caller Agency: CON ED
 Contact for more spill info: LISA PRIMEGGIA

Spiller Phone: (212) 580-6764
 Notifier Phone: (212) 338-3352
 Caller Phone: (212) 580-6763
 Contact Person Phone: (212) 580-6763

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 08/13/1996 | | EQUIPMENT FAILURE | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| TRANSFORMER OIL | PETROLEUM | 200.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

WAS PCB OIL – SEWER WAS ALSO POSSIBLY AFFECTED – WILL BE CLENAED UP TODAY

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL

8/13/96, Katz notes: Attempted to de-energize transformer that leaked into vault. Crew to remain on-site until completion – anticipated this afternoon or evening. Have tanker truck scheduled to remove oil. Notify DEP. PCB concentration?

2/9/05: Con Ed inspected vault: Site visit was performed and no oil was found – Also, CINDE database indicates site was visited by a crew after the initial incident and no report of oil was made. Close out. (JHO)

Map Identification Number 286 **200 WEST 79TH ST/MANH**
 200 WEST 79TH STREET

NEW YORK CITY, NY

Spill Number: 9011809

Close Date: 05/25/1995
 TT-Id: 520A-0097-842

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1064 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Other
 Caller Name: BOB DECK
 DEC Investigator: WILSON

Spiller: UNKNOWN
 Notifier Name:
 Caller Agency: PETRO TANK CLEANERS
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone: (718) 624-4842
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/08/1991 | 05/25/1995 | HUMAN ERROR | UNKNOWN | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 100.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

ELECTRICAL CONTRACTOR DRILLED INTO FUEL LINE, SPILL CONTAINED IN TANK ROOM, PETRO TANK CLEANERS TO CLEAN UP WITH VAC TRUCK & SORBENT.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 287 **10 WEST 86TH ST**
 10 WEST 86TH ST

MANHATTAN, NY

Spill Number: 9603097

Close Date: 07/10/1997
 TT-Id: 520A-0092-328

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1376 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: WATER MAIN BREAK Spiller Phone:
 Notifier Type: Other Notifier Name: LARRY KNAFO Notifier Phone: (212) 374-5500
 Caller Name: HOWARD LEVY Caller Agency: NYC DEP Caller Phone: (718) 595-6700
 DEC Investigator: MMMULQUE Contact for more spill info: NICK MERCKLING – DEP Contact Person Phone: (917) 769-1157

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Unable or Unwilling RP – DEC Field Response – DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 06/05/1996 | | EQUIPMENT FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #4 FUEL OIL | PETROLEUM | 300.00 | GALLONS | 300.00 | GALLONS | SOIL |

Caller Remarks:

water main break caused 5 ft of water to go into basement of above address with an oil slick on surface request call or response from dec

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was MULQUEEN WATER MAIN BREAK FLOODED BASEMENT DISPLACING OIL IN TANK AND FURNACE. DEP REQUESTED THAT DEC HIRE A CONTRACTOR TO CLEAN UP SPILL.

Map Identification Number 288 160 WEST 73RD STREET
 160 WEST 73RD STREET

MANHATTAN, NY Spill Number: 9307715 Close Date: 02/27/2004
 TT-Id: 520A-0097-812

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1406 feet to the SW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: Spiller Phone:
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:
 Caller Name: NEIL IBROCI Caller Agency: SOLIL MAT. Caller Phone: (212) 265-2280
 DEC Investigator: SMSANGES Contact for more spill info: Contact Person Phone:

| | | | | | | | |
|------------------|---|-------------------|-------------------------|---------|---------------------|---------|----------------------|
| Category: | Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters. | | | | | | |
| Class: | Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency | | | | | | |
| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
| 09/24/1993 | | EQUIPMENT FAILURE | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | | PETROLEUM | 3000 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

SPILL CONTAINED IN TANK CREW ON SCENE FOR CLEAN UP – ABC CONTRACTING – IWCS CONTACTED. SUME FUM FLOODED.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SANGESLAND 10/10/95: This Is Additional Information About Material Spilled From The Translation Of The Old Spill File: ~2" On Floor.3/17/2003 – Closed Due To The Nature / Extent Of The Spill Report.2/23/2004 – Case Transferred To Sangeslandproperty Manager Harvey Kamen (212-265-2280)-(Fax 212-582-0186) Called To Say The Building Is Being Refinanced And Needs A Proper Closure.2/24/2004 – Sangesland Made A Site Visit. Tank Room Appears To Be Secure. Minor Oil Drips– Poor Housekeeping, But Basically Secure. Sangesland Requested Documentation Relating To The Tank Cleanout/Repair Performed In 1993.2/27/2004 Sangesland Received A Statement From Abc Tank That They Cleaned The Subject Oil Spill On Oct 29, 1993 And Later Patched The Existing Tank With Metal Welds And An Epoxy Liner.The Spill Repair/Cleanup Is Now Properly Documented And This Spill Is Formally Closed Out.

Map Identification Number 289 **WEST 74TH ST/ BRODWAY** **Spill Number: 9509544** **Close Date: 12/10/1996**
 WEST 74TH ST/ BROADWAY NYC, NY TT-Id: 520A-0090-930

MAP LOCATION INFORMATION
 Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 1493 feet to the WSW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-------------------------------------|--|--------------------------------------|
| Source of Spill: COMMERCIAL VEHICLE | Spiller: | Spiller Phone: |
| Notifier Type: Fire Department | Notifier Name: KREGLER,WILLIAM | Notifier Phone: (917) 769-0483 |
| Caller Name: KREGLER,WILLIAM | Caller Agency: NYC FIRE DEPT | Caller Phone: (917) 769-0483 |
| DEC Investigator: GUTIERREZ | Contact for more spill info: KREGLER,WILLIAM | Contact Person Phone: (917) 769-0483 |

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|------------------|-------------------------|---------------------|
| 11/02/1995 | | TRAFFIC ACCIDENT | NO | NO |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

Caller Remarks:

RESPONDING TO ACCIDENT CALL NO FURTHER INFO AT THIS TIME

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 290 **APARTMENT BUILDING**
 203 W. 85TH ST.

MANHATTAN, NY

Spill Number: 0310337

Close Date: 12/10/2003
 TT-Id: 520A-0091-473

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1630 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
 Notifier Type: Responsible Party
 Caller Name: ROBERT HILL
 DEC Investigator: CESAWYER

Spiller: ROBERT HILL – CHURMAN RAGBIR
 Notifier Name: CHURMAN RAGBIR
 Caller Agency: CASTLE OIL
 Contact for more spill info: PAUL BRUSCO

Spiller Phone: (718) 579-3414
 Notifier Phone: (718) 579-3414
 Caller Phone: (718) 579-3414
 Contact Person Phone: (212) 595-9590

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 12/05/2003 | | EQUIPMENT FAILURE | NO | NO |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

Caller Remarks:

blew a fill line to make sure the whistle worked before filling the apartment building.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SAWYER minor spill to sidewalk out of vent line

All cleaned

Map Identification Number 291

CENTRAL PARK LAKE
CENTRAL PARK LAKE



MANHATTAN, NY

Spill Number: 9106326

Close Date: 09/15/2009

TT-Id: 520A-0095-745

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING – LARGE SITE
Approximate distance from property: 1781 feet to the SSE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
Notifier Type: Responsible Party
Caller Name: TOM BAUDONKA
DEC Investigator: JBVOUGHT

Spiller: THOMAS BAUDANZA – NYC PARKS DEPARTMENT
Notifier Name:
Caller Agency: NYC PARKS DEPT
Contact for more spill info:

Spiller Phone:
Notifier Phone:
Caller Phone: (212) 360-1421
Contact Person Phone:

Category: Known release which created a fire/explosion hazards (inside or outdoors), drinking water supply contamination, or significant releases to surface waters.
Class: Unknown RP – DEC Field Response – DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | Resource(s) Affected |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|--------------------------------|----------------------|
| 09/11/1991 | | HUMAN ERROR | NO | | NO | | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected | |
| #2 FUEL OIL | PETROLEUM | 250.00 | GALLONS | 250.00 | GALLONS | SOIL SURFACE WATER SEWER | |

Caller Remarks:

DURING ABOVEGROUND TANK MAINTENANCE, INTERCONNECTING PIPE BROKE. LEAKED TO ASPHALT AREA, STORM DRAIN, & LAKE. SORBENT PADS APPLIED TO LAKE & DRAIN. WILL FIX PIPE. DEP NOTIFIED.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIPPLE 5/10/04 – AUSTIN – TRANSFERRED FROM SULLIVAN TO TIPPLE – END

8/23/05 – Raphael Ketani. Case transferred to Jeff Vought.

09/14/09–Vought–File review by Vought:

Photographs of Cleanup–unknown date. Shows application of boom and sweep and impacted lake shoreline.

Wall Street Journal Article–10/2/91. Title is Oil Spill in Central Park . Spill was 250 gallons of #2 fuel oil. Spill occurred 9/11 when workers at a park maintenance yard near West 79th Street attempted to remove two large oil storage tanks. A connecting transfer pipe snapped and the oil leaked into a nearby storm sewer that empties directly into the rowboat lake. Oil was covering 80% of the lake. Parks Department authorized state to cleanup the spill. Cleanup efforts included boom and sweep. Five days later boating resumed in eastern segment and cleanup continued on more polluted western end. Nine days later after the spill, the state cleanup team had completed its work and both parts of the lake were opened again for boating. .

Article–Unknown Author and Date. Small summary and photo with same info as Journal article above.

Contract Payment Package (Winston Contracting) 9/12/91 thru 10/8/91. Work included boats, boom, sweeping, drums and disposal.

Letter from DEC Tomasello to Thomas Baudanza (NYC Parks)–2/10/92. Enclosed please find the bill for the oil spill cleanup by Winston Contracting Corp at Central Park Lake..... . NYC Parks has opportunity to pay the contractors directly for the work that was performed.

ISR–9/28/92. Signed ISR.

Letter from DEC Plesnarski to DEC Oliver–10/27/92.

The above spill project is recommended for immediate close out by your office since the investigations on each spill indicate either no spiller, no petroleum spilled or no fund monies spent.

Liquid TPH Analyticals (Central Park)–4/9/93. Samples collected on 4/1/93. Analyticals show petroleum constituents all below 1ppb.

09/15/09–Vought–08/17/09–Vought–Vought reviewed site with DEC Austin and spill closed as spill cleanup completed to lake evidenced by photographs analyticals and Wall Street Journal Article and repeated site visits to Central Park lake over the years by Vought. Vought called and spoke to NYSOAG Ross and they have no record of spill (supporting fact that NYC Parks paid contractor directly). Spill closed by Vought. Need for final ISR awaiting callback from DEC Farrar.

08/18/09–Vought–Spoke to DEC Farrar and as Att. Gen. Close Date box is filled out in UIS, no Final ISR needed.

Map Identification Number 292 **FEEDER M51**
 WEST END AVE / 84 STREET

MANHATTAN, NY

Spill Number: 0514145

Close Date: 10/10/2006
 TT-Id: 520A-0098-432

MAP LOCATION INFORMATION
 Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 2039 feet to the NNW

ADDRESS CHANGE INFORMATION
 Revised street: WEST END AVE / W 84TH ST
 Revised zip code: 10024

| | | |
|--|---|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: ERT DESK – CON EDISON FEEDER M51 | Spiller Phone: (212) 580-8383 |
| Notifier Type: Responsible Party | Notifier Name: JOHN MERAN | Notifier Phone: (212) 580-6763 |
| Caller Name: JOHN MERAN | Caller Agency: CONED | Caller Phone: (212) 580-6763 |
| DEC Investigator: JHOCONNE | Contact for more spill info: ERT DESK' | Contact Person Phone: (212) 580-8383 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 03/10/2006 | | EQUIPMENT FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIELECTRIC FLUID | PETROLEUM | 300.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

FEEDER IS LEAKING AND THEY ARE LOOSING 7 GALLONS PER HOUR AND ARE STILL INVESTIGATING: MAYBE IN WATERWAYS BECAUSE FEEDER RUNS UNDER WATER: DISPATCHED A BOAT AND CREW ARE WORKING ON FINDING AT THIS TIME.

163283.000

DEC Investigator Remarks:

3/10/06, 12:00 PM: Spoke with Mike Pillig, Con Ed Transmission Ops. They suspect it is an inventory issue, not an actual leak. However, they have dispatched the PFT vans to check the feeder run. (JHO)

3/14/06 – small leak located at 84th St. & West End Ave., Manhattan. Excavation will be sampled prior to backfilling. (JHO)

10/6/06: e-mail from Mike Pillig:

Below is a diagram of the excavation and sample results for the 1st round of sampling [SEE E-DOCS – JHO]. The results have been written in on the diagram to facilitate your review. As you will see, there were three samples that were above 10,000 ppm. They were wall samples WW-4 (13,200ppm), EW-2(14,000 ppm), and floor sample SF-3 (30,200 ppm). The rough dimensions of the excavation

are 8' W X 30' L X 8' D. There is one sample that was either lost or not analyzed but I did not resample because we had samples below 10,000 ppm on either side.

We since removed additional soil in the areas of the elevated levels. The walls were resampled in the two locations and the results are below. Both are now below 10,000 ppm.

Lastly, the area of the heaviest contamination, that being the floor was excavated to an approximate depth of 10.5 feet. A sample was taken in the center of the floor slightly offset from the exact leak location. The results, also below 10,000 ppm, are below. Also, there had been a distinct odor of old oil in the excavation up until the last effort to excavate the floor. At the time I took the last sample, the odor no longer was noticeable. Couple of photos for you as well. Close out. (JHO)

~~~~~ e2mis no. 163283: see eDocs

10-Mar-2006 @ 10:25 hours Leak Committee declared a Dielectric Alert on Feeder M51 due to a U.S.I. Leak Detection System alarm of 7 gallons per hour & a approximate discrepancy of 300 gallons. No Oil Leak Has Been Confirmed. The feeder M51 runs between the West 49Th Street S/S and the Sprainbrook S/S. The feeder crosses the Harlem River Between the 155Th Street and 225Th Street Bridges. ERT notified at 10:45 hours to have boat dispatched to patrol River crossing. Chem Lab dispatching PFT vans to patrol feeder run. Gas Corrosion & Transmission Operations dispatched to inspect all underground structures along the run of the feeder. Substation Operations inspecting all associated equipment.

Update, Friday, March 10, 1800 hrs Per Charles Carrillo, Senior Specialist, Transmission Operations, 70 manholes have been inspected and no evidence of a leak has been detected. There are ten more manhole openings (e.g., freeze pits) that need to be inspected. The PFT vans have patrolled the entire feeder run without detecting evidence of a leak.

As of 07:00 3/11/06 all manholes have been checked except for 1 service box. There is a car parked over it and there is no access. Subsurface structures were checked in Manhattan also. ERT boat ran in Harlem River and did not find anything.

At 07:00 3/11/06 Leak committee convened and discussed findings. CSD monitoring of tanks and flowmeters does not show leak trend. USi model has problems with data since bypass valves are open at the cooling plants. Also water loops at W49th St were swapped on 3/8/06 and Sprainbrook Pura shut down on 3/10/06. Model may be slow in responding to changes. Since manhole search was completed and PFT vans did not find any signals, it was decided to stop leak search efforts and continue to monitor USi system.

At approx. 12:00 hrs. during the search for the leak, the PFT van detected PFT in the area of 84th St and West End Ave. Subsurface structures were inspected and approx. 10 gallons of oil in a manhole at the intersection of 84th St. and West End Ave was discovered. Barholes were made and Chem Lab has taken samples from the barholes and PFT is being detected. Trans Ops and the Chem lab are continuing to zero in on the exact leak location. We will continue to barhole and sample until a spot to dig has been established.

Update: Leon Paretsky, Tues, March 14--0930 hrs The leak was located @ 84th St & WEA and clamped at 2030 hrs on Monday, March 14th.

Update: 3/15/06 Presently, an excavation approximately 8'X 8' has been dug to make room for the installation of the permanent repair barrel. We are continuing to dig down below the feeders until the visibly stained soil has been removed. Once the excavation has been completed, we will arrange for post-ex sampling.

**Map Identification Number 293** **APARTMENT BUILDING**  
 505 WEST END AVE

MANHATTAN, NY

**Spill Number: 0604433**

**Close Date: 10/26/2007**  
 TT-Id: 520A-0101-339

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2178 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: VSZHUNE

Spiller: MARK SALAMACK – APART  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: MARK SALAMACK

Spiller Phone: (917) 559-5519 ext. C  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (917) 559-5519 ext. C

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 07/20/2006 |                     | EQUIPMENT FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 800.00           | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

SLUDGE BUILD UP IN OIL BURNER CAUSED A SPILL, CLEANING UP AT THIS TIME:

**DEC Investigator Remarks:**

07/20/06-Vought-Site visit by DEC Vought and DEC Zhune with super of building (Carlos 212-787-7895). As per Carlos: 5000-gallon #6 fuel oil AST was cleaned on 7/17/06 by Petroleum Tank Cleaners (PTC). On 7/19/06, super was notified by resident of oil odors and discovered spill of #6 fuel oil to secondary containment. As per Carlos, tank was operational after it was cleaned by PTC. A fuel order delivery was also received (Stuyvesant Fuel) on 7/17/06 after the tank was cleaned by PTC. No spill occurred during delivery and at time of DEC site visit no spill was observed out of vent pipe. Tank and secondary containment will be removed and replaced as per Carlos. No further odor complaints were received. Vought called DEP and issued report (#1407818) for impact to sump. DEC requires: 1) Tank tightness test of new or repaired system 2) written statement regarding condition of concrete and cleanup procedures. As per Carlos, DEC letter should be sent to:

505 WEA Owners Corp. Gerard J. Picasso 1133 Broadway New York, NY Ph: 212-807-6969 attn: Lisa or Gerard.

07/31/06-Zhune sent TTF letter to Mr. Picasso.

08/28/06 Owner sent invoices of clean up and rental of temporary tank.

8/29/06-Zhune called Carlos (Super) Ph 917-838-9952. He said they are still in the process of removing old tank.

09/27/07 Petroleum tank submitted the following information: ON 20 July 2006 Petroleum Tank was notified of an oil spill at 505 east End Avenue in Manhattan. They found that the existing above ground 5,000 gallon #6 fuel storage tank had begun to leak. The room was littered with debris. The tank was immediately emptied and the room cleaned. The contaminated debris was placed into drums along with absorbent that was used to take up the oil. The tank was removed and the floor was washed with a pressure washer. The floor was a solid cement floor free of any cracks or voids. For this reason no soil samples were taken. A New tank has been installed by Eastmond & Sons.

10/13/2007 Eastmont sent the following Report: At our time of our (Eastmond & Sons)involvement in the new tank installation at the above referenced location the fuel oil tank room has been already cleaned. There were no sign of an oil spill that would require collecting soil samples. Neither cracks nor holes would have compromised the ground beneath the concrete were present Due to an influx of water in the lower exterior foundation wall, it it was my desicion to install a new concrete pad with a gutter built into the one side of the concrete to allow the incoming water to be channeled directly to an existing sump outside the tank area. In order to maintain a containment area for the new tank, additional concrete block were installed on top of the new concrete pad as a dike wall within the tank area to eliminte the possibility of oil ever entering the channel. Case Closed

**Map Identification Number 294** **STREET** **Spill Number: 0307135** **Close Date: 11/07/2003**  
 WEST 69TH ST/COLUMBUS AV MANHATTAN, NY TT-Id: 520A-0090-817

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 2216 feet to the SSW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                                  |                                      |
|-----------------------------------|--------------------------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: UNKNOWN                                 | Spiller Phone:                       |
| Notifier Type: Fire Department    | Notifier Name: FDNY DISPATCH                     | Notifier Phone:                      |
| Caller Name: FIREFIGHTER DICKSON  | Caller Agency: FDNY HAZMAT 1                     | Caller Phone: (347) 539-0559         |
| DEC Investigator: CESAUYER        | Contact for more spill info: FIREFIGHTER DICKSON | Contact Person Phone: (347) 539-0559 |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/07/2003 |                     | TANK OVERFILL  | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 100.00           | GALLONS | 0.00               | GALLONS | SOIL                 |

-----  
Caller Remarks:fd doing clean up. spill from #9 to #51 west 69th st.  
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## DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SAWYER 10/7/03 TIPPLE UPDATED// SAWYER RESPONDED TO SCENE.////////

10/7/03 0645 Hrs – Sawyer – I responded to the site to find a packaged boiler connected to a 1500 gallon tank. The spill was contained and outlined a pattern outside the vent pipe of the boiler spilling, down onto the boiler, onto the tank and down the street to 55 West 69Th Street. There were two 55 gallon drums and one 35 gallon drum sitting on the side walk with over filled #2 fuel. When I arrived another project manager from Maximum Mechanical Corp. was there. He said this was not his project, but since he was in the area his company wanted him to stop by.

He informed me that the real PM a George Leoutsakos would be arriving momentarily. The super of the building Ruben called the PM a couple of times before he arrived at 9:30 am. George said he had contracted USA Tank Cleaners to clean up the contained spill and clean out or take the drums. In addition to the Fire Department who wrote the super a citation, the NYPD and ConED emergency health and safety were also there at various times.

10/16/03 1400 Hrs – Sawyer – Ruben the super called and informed me that USA Tank Cleaners returned and cleaned the gutters to a higher level than normal. Closed.

**Map Identification Number 295****FEEDER M52**

WEST END AVE / 86TH ST

MANHATTAN, NY

**Spill Number: 9812964****Close Date: 08/07/2006**

TT-Id: 520A-0102-211

## MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 2324 feet to the NNW

## ADDRESS CHANGE INFORMATION

Revised street: W 86TH ST / WEST END AVE

Revised zip code: 10024

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Responsible Party

Caller Name: FRANK MASSERIA

DEC Investigator: JHOCONNE

Spiller: CON EDISON

Notifier Name: MR HAGGERTY

Caller Agency: CON EDISON

Contact for more spill info: FRANK MASSERIA

Spiller Phone: (212) 580-6763

Notifier Phone:

Caller Phone: (212) 580-6763

Contact Person Phone: (212) 580-6763

-----  
Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |         | Penalty Recommended |         |                      |
|------------------|---------------------|-------------------|-------------------------|---------|---------------------|---------|----------------------|
| 01/21/1999       |                     | EQUIPMENT FAILURE | NO                      |         | NO                  |         |                      |
| Material Spilled |                     | Material Class    | Quantity Spilled        | Units   | Quantity Recovered  | Units   | Resource(s) Affected |
| DIELECTRIC FLUID |                     | PETROLEUM         | 282.00                  | GALLONS | 0.00                | GALLONS | SOIL                 |

Caller Remarks:

LEAK IN FEEDER LINE THAT RUNS BETWEEN THE TWO SUBSTATIONS – LEAK IS APPROX 1.5 GALS PER HOUR – APPROX 200 GALS MISSING FROM RESEVOIR CON ED 122598 – LINE IS 80 MILES LONG AND LEAK COULD BE SOMEWHERE BETWWEN THE 2 – UNK PCB COUNT

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL

1/21/99: ERT Piczatowski – Based on flow meter trending, not on reservoir level drop. Pulling manholes and 2 PFT truck are out. Capacity of feeder is 308,153 gallons. (JHO)

1/23/99: Leak located at West End Avenue at West 86th St., Manhattan.

1/25/99: spoke to John Heggerty, S&TO Central Ops. Final leak volume calculation is 282 gallons. (CAE)

1/25/99: CIG Romero reports temp clamp as of 0200 on 1/23/99. West End Ave. 10 feet north of W. 86th Street. (CAE)

Field notes: 1/25/99 On location at 12:53. Met with Gerry Materazzo, Joe Floryshak (Con Ed) and George Vasilev (MEG). Repairs made. Materazzo reports that bedrock was only a couple of inches below feeder. Had to jack hammer out to put barrel on. Vasilev put in well this morning to bedrock – recovered 90 gallons mostly oil. During excavation removed 5 yards contaminated soil. Oil is entering sewer on corner of W. End Ave. & W. 86th St. MEG maintaining boom. MEG to return on Friday to check well and sewer (change sorbent).

Chem Lab arrived and collected 2 soil samples from west wall of excavation a couple of feet north of the spot on the feeder where the leak was (leak at 4 o'clock on feeder facing south). Samples looked dark and wet – collected from behind the shoring.

After samples collected I told Materazzo he could backfill. (CAE)

10/18/02: submitted for closure by Con Ed (see e2mis report which follows). Sent back to Con Ed requesting soil sample results and additional information on well. This spill added to Appendix B site no. 41, and transferred from Engelhardt to O'Connell. (JHO)

3/10/03: letter from Con Edison EH&S Remediation group requesting to combine this spill with Appendix B site 29 (sp. 9012291).

(JHO)

3/25/04: Draft site investigation work plan submitted by Con Edison. (JHO)

10/7/04: Comment letter on SIWP sent out. (JHO)

5/17/05: revised SIWP (incorporating DEC comments) approved. (SKA)

3/30/06: Con Ed submits site investigation report. Report assigned to Shaun Bollers for review. (JHO)

8/7/06: Report indicates that no residual soil or groundwater contamination was detected during the site investigation activities. Based on these results, spill is closed. (JHO)

----- e2mis no. 122-598:

21-JAN-1999 @ 13:40 HRS. FLOW METER TRENDING ON FDR M52 AT WEST 49TH ST S/S PUMPHOUSES INDICATES A DISCREPANCY OF APPROXIMATELY 200 GALLONS. LEAK RATE OF 1.5 GALLONS PER HOUR. LEAK COMMITTEE CONVENED. UT AND GAS CORROSION INSPECTING MANHOLES ON RUN OF FEEDER. PFT VAN DISPATCHED TO PATROL RUN OF FEEDER. SUBSTATION OPERATIONS INSPECTING PUMPHOUSES, PURS AND POTHEADS. FEEDER RUN FROM WEST 49TH ST S/S TO SPRAINBROOK SUBSTATION.

DEC# 98-12964 Conference call 13:30. TO crews to check Manhattan and Westchester manholes. CGO crews to check Bronx manholes. CSD to check Pumphouses and Purs and valves at Sprainbrook Sta. PFT van #1 to go South from 125th St and B'Way. PFT van #2 to go North from 125th St and B'Way. MEG notified to standby and arrived on location at 125th St and B'Way at 16:00. VNR notified and crews standing by in yard in Harlem. ATC notified for possible air monitoring if necessary. As per CIG S&D was not called out to check the Harlem River at Tremont Ave since the fluid loss (1.5 GPH) would not be able to be seen on the surface.

20:15 all manholes in Westchester have been checked - no leak found. At 20:20 Chem Lab found indications of PFT at 84th St and West End Ave. Barhole crew to barhole area.

20:30 conference call: Large signal found in subsurface @ 85th St.; Manhattan Area completely checked for PFT; PFT van to check Bronx run; All Bronx manholes checked - except MH27009- no leak found; At 21:30 Manhattan manholes have been checked - no leak. At 21:40 all Pumphouses and Purs checked - no leak. Barholes finished on 11-7 shift 1/22/99. PFT samples taken. Highest PFT indications found at intersection of West End Ave & 86th St. Excavation crew on location and excavation started at 09:30 at intersection of 86th St and West End Ave. MH27009 checked - no leak. Area excavated - no leak found. 19:00 conference call: Higher concentration found north of 1st excavation. 2nd excavation started approx 30' north of 1st. Dielectric fluid found in trench. Excavation continues south - Leak found and clamped by 02:00 1/23/99. Chem lab took samples and reported 99-00700 <1.0ppm PCB's; 99-00755 .466 ppm total benzene in soil and 99-00701 23.5 and 23.4 total benzene in oil. No TCLP results were given. Temp EPA ID# NYP004035317 received from ERT for CTW disposal. Excavation continues for permanent repairs. Welding started at 15:00 1/23/99. 220 style repair barrel welded over temp clamp @ 04:15 1/24/99. ETI made inspection of weld. CSD notified. MEG removed 43 cubic yards of soil and 100 gallons of fluid from trench at leak site at 23:00 1/23/99. MEG installed recovery well at leak location. During well installation MEG removed an additional 90 gallons of dielectric fluid from trench. DEC notified of leak and well installation. Chris Engelhardt (NYSDEC) requested soil samples to be taken by Chem Lab.

MEG could not take samples from soil at bottom of trench since bottom of trench is rock. On 4/1/99 and 4/9/99 MEG removed booms

from sewers – approx 1 cubic yard of material each time. CSD reports 288 gallons lost due to leak. Report from MEG geologist received on 4/7/99. On 8/3/99, 8/12/99, 8/20/99, 8/27/99, 9/1/99, 9/10/99, 9/16/99, 9/24/99, 9/30/99, 10/20/99 MEG replaced sorbents in sewers at 86th St and West End Ave and disposed of 1 cubic yard of material.

Sample ID No. 99-00700 For what parameters? X PCB X BENZENE Recovered oil 190 GALLONS Excavated contaminated soil, bluestone. Excavated soil/bluestone 43 CUBIC YARDS Wells installed. Cleanup completed on 01/23/99 at 23:00

**Map Identification Number 296** **WISE TOWERS** **NEW YORK, NY** **Spill Number: 9416405** **Close Date: 05/30/1996**  
 49 WEST 89TH STREET TT-Id: 520A-0098-783

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2326 feet to the NNE

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                                  |                                      |                               |
|--------------------------------------------------|--------------------------------------|-------------------------------|
| Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER | Spiller: NYC HOUSING AUTHORITY       | Spiller Phone: (212) 306-3142 |
| Notifier Type: Responsible Party                 | Notifier Name:                       | Notifier Phone:               |
| Caller Name: ED MALONE                           | Caller Agency: NYC HOUSING AUTHORITY | Caller Phone: (212) 306-8480  |
| DEC Investigator: HEALY                          | Contact for more spill info:         | Contact Person Phone:         |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 03/20/1995       |                     | TANK OVERFILL    | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 365.00           | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

**Caller Remarks:**

TRUCK DRIVER WAS INSTRUCTED TO FILL THE WRONG TANK. OIL WAS CONTAINED IN VAULT BUT CONCRETE FLOOR IN VAULT HAD HOLE IN IT-OIL SEEPED INTO GROUND. WINSTON TO REMEDIATE.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

**The following DEC Investigator Remarks were available prior to 1/1/2002:**

Spill number closed out following operation of a vapor recovery system at the site from April 1995 through March 1996. Air sample

were taken approximately monthly, and indicated progressive removal of all petroleum vapors from the subsurface. Final monitoring with HNu meter on March 13 showed no vapors.

**Map Identification Number 297****APARTMENT BUILDING**

19 WEST 89TH STREET

NEW YORK CITY, NY

**Spill Number: 0310328****Close Date: 02/20/2004**

TT-Id: 520A-0098-775

## MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 2332 feet to the NE

## ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING

Notifier Type: Tank Tester

Caller Name: ANTHONY LARA

DEC Investigator: CESA WYER

Spiller: ANTHONY LARA – APARTMENT BUILDING

Notifier Name: ANTHONY LARA

Caller Agency: PETROLUEM TANK CLEANERS

Contact for more spill info: ANTHONY LARA

Spiller Phone: (718) 625-4842

Notifier Phone: (718) 624-4842

Caller Phone: (718) 624-4842

Contact Person Phone: (718) 625-4842

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 12/05/2003 |                     | EQUIPMENT FAILURE | NO                      | NO                  |

## NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

## Caller Remarks:

noticed fill line was leaking, oil leaked out: fill line being replaced and oil cleaned up.

## DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SAWYER 12/10/2003 Sangesland spoke with Big Anthony at Petroleum Tank Cleaners about the site.

Property manager: Barry Zonon of Tri Management 212-675-0593

On 12/5/03 the building owner/manager called PTC to say he had a leak around his fill line. PTC inspected the line and gave the owner 2 proposals. One proposal was to remove and replace the fill line (from front of building, down an old coal chute into the basement). This proposal was approved by the owner and was being done on 12/10/2003.

The second proposal was to clean up the contamination in both the basement and in front of the building. As of 12/10/03 this proposal had NOT been approved by the owner.

2/20/04 – Sawyer – Talked to PTC and they confirmed that they removed one fill pipe and cemented the area and installed a new one. Closed.

**Map Identification Number 298** **TRANSFORMER** **Spill Number: 1205821** **Close Date: 08/01/2013**  
 W 78TH ST & RIVERSIDE DR MANHATTAN, NY TT-Id: 520A-0279-316

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 2367 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: W 78TH ST / RIVERSIDE DR  
 Revised zip code: 10024

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: ERT – CON EDISON Spiller Phone:  
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: Caller Phone:  
 DEC Investigator: RWAUSTIN Contact for more spill info: ERT Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 09/11/2012 |                     | EQUIPMENT FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIELECTRIC FLUID | PETROLEUM      | 150.00           | GALLONS | 0.00               | GALLONS |                      |

Caller Remarks:

On going leak contained inside vault. Cleanup is pending.

DEC Investigator Remarks:

8/1/13 – Austin – Originally reported as 150 gals, Con Ed revised the quantity to 30 gals of dielectric fluid spilled in the vault from the faulty transformer – Con Ed contained and cleaned up the spill, and replaced the transformer – See eDocs files for further information – Spill closed – end

**Map Identification Number 299**

**ROADSIDE**

**Spill Number: 0107530**

**Close Date: 09/01/2003**



2000 BROADWAY

MANHATTAN, NY

TT-Id: 520A-0095-261

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2413 feet to the SW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: TANK TRUCK  
 Notifier Type: Responsible Party  
 Caller Name: TONY PERETTA  
 DEC Investigator: RWAUSTIN

Spiller: TONY PERRATA – MYSTIC TRANSPORTATION  
 Notifier Name:  
 Caller Agency: MYSTIC TRANSPORTATION  
 Contact for more spill info: TONY PERETTA

Spiller Phone: (718) 932-9075 ext. 2  
 Notifier Phone:  
 Caller Phone: (718) 932-9075 ext. 2  
 Contact Person Phone: (718) 932-9075

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 10/23/2001 |                     | EQUIPMENT FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 100.00           | GALLONS | 75.00              | GALLONS | SOIL                 |

**Caller Remarks:**

DECK HOSE BROKE ON TANK TRUCK CAUSING SPILL – SEWER ALSO AFFECTED CLEAN UP CREW CONTACTED

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was AUSTIN 10/23/01 ROBERT CROSSEN ON SITE. HOSE ON MYSTIC FUEL DELIVERY TRUCK BROKE, ABOUT 100 GALLONS SPRAYED OUT BEFOR THE DRIVER COULD SHUT OFF. OIL OVER 3 TREES, 3 CAR, SIDE WALK, AND BUILDING. SEVERAL PEDESTRIANS ALSO WERE COVERED. MYSTIC RESPONDED AND HIRED CASTLTON TO RESPOND. VACED UP PRODUCT, CLEANED CATCH BASIN ABOUT 25 GALLONS LOST TO STORM SEWER, CARS WERE CLEANED AND THE TREES HOSED DOWN. CLEANUP SATISFACTORY. CASTLTON WILL SEND REPORT WITH DISPOSAL RECEIPTS. DEP ISSUED APPERANCE TICKET. REPORT DUE 11/30/01

9/01/03 – AUSTIN – REQUESTED REPORT RECD 11/2/01 BY DEC. CLOSE SPILL IN DATABASE – ORIG. ASSIGNED TO CROSSEN, WHO WAS ASSISTING WITH REGIONAL SPILL REPSONSE COVERAGE DURING THE WTC EVEN – END

**Map Identification Number 300** **144 WEST 90TH STREET**  
 144 WEST 90TH STREET

MANHATTAN, NY

**Spill Number: 9209074**

**Close Date: 11/05/1992**  
 TT-Id: 520A-0091-913

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2508 feet to the NNE

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
 Notifier Type: Other  
 Caller Name: JIM CAREY  
 DEC Investigator: KSTANG

Spiller:  
 Notifier Name:  
 Caller Agency: CASTLE OIL  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (718) 823-8800  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 11/05/1992 | 11/05/1992          | EQUIPMENT FAILURE | UNKNOWN                 |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 100.00           | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

DEFECTIVE GAGE-SPILL ON CONCRETE FLOOR OF BOILER ROOM-ALSO OUTSIDE ON PAVEMENT AT VENT AND SOME IN STORM DRAIN SCHOOL INITIATING CLEANUP

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TANG

**Map Identification Number 301** **VAULTS V9112/V9328/V9500/SB12447**  
 WEST 68TH ST AND BROADWAY

MANHATTAN, NY

**Spill Number: 1102137**

**Close Date: 07/22/2011**  
 TT-Id: 520A-0263-299

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 2532 feet to the SW

**ADDRESS CHANGE INFORMATION**

Revised street: WEST 68TH ST / BROADWAY  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: CYRSTAL HEATING Spiller Phone:  
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: Caller Phone:  
 DEC Investigator: RWAUSTIN Contact for more spill info: ERT Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 05/26/2011 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected        |
|------------------|----------------|------------------|---------|--------------------|---------|-----------------------------|
|                  |                | Units            |         | Units              |         |                             |
| #4 FUEL OIL      | PETROLEUM      | 170.00           | GALLONS | 170.00             | GALLONS | IMPERVIOUS SURFACE, UTILITY |

Caller Remarks:

170 gallons of #2 was lost to vaults v9328, v9500, v9112 and manhole sb1244 due to loss from delivery truck, clean up pending

DEC Investigator Remarks:

6/2/11 – Raphael Ketani. I spoke to David Duke at the Con Ed environmental desk (212) 580-8383. He sent me the EMIS report (#225923). A total of 71 gals. of fuel oil had spilled into the 3 vaults and the manhole. These are vaults V9112, V9328, V9500 and SB12447. PCB and flash point samples were taken. One sample had 13 ppm of PCB. Clean Ventures came and sucked out the oil and cleaned the vaults and manhole. The work was completed on 5/31/11.

7/22/11 – Austin – See spill # 1102131, for the fuel truck spill. Thee adjoining Con Ed service vaults were impacted – Con Ed contained and cleaned up the spill – See the documents in eDocs files for more info – Spill closed – end

**Map Identification Number 302**



**ON SOUTH SIDE OF WEST 68 STREET  
 BETWEEN AMSTERDAM AVE AND  
 BROADWAY**

MANHATTAN, NY

**Spill Number: 1102131**

**Close Date: 06/06/2011**  
 TT-Id: 520A-0263-404

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (4)  
 Approximate distance from property: 2582 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: S SIDE OF W 68TH ST  
 Revised zip code: NO CHANGE

|                                        |                                                |                                      |
|----------------------------------------|------------------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: 1995 BROADWAY                         | Spiller Phone:                       |
| Notifier Type: Other                   | Notifier Name:                                 | Notifier Phone:                      |
| Caller Name:                           | Caller Agency:                                 | Caller Phone:                        |
| DEC Investigator: RVKETANI             | Contact for more spill info: DIV CHIEF CARLSEN | Contact Person Phone: (718) 430-0220 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 05/26/2011 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected                                 |
|------------------|----------------|------------------|---------|--------------------|---------|------------------------------------------------------|
| #4 FUEL OIL      | PETROLEUM      | 200.00           | GALLONS | 200.00             | GALLONS | INDOOR AIR<br>SEWER<br>IMPERVIOUS SURFACE<br>UTILITY |

Caller Remarks:

spill coming from unknown source – FD on scene now – no other information avail

DEC Investigator Remarks:

FD on scene.Approx 70 gallon #4 oil on the street,spilled from delivery truck.FD in the process of checking the tank room.FD could not provide truck company's name.Raphael Ketani responding to the site.

5/26/11 – Raphael Ketani. I arrived on the scene and saw about 20 pieces of NYFD equipment along Broadway, in front of the affected building (1995 Broadway), along West 68th Street, and along Amsterdam Avenue – the other street bounding West 68th Street. I met Deputy Chief Carlsen of the NYFD Division 3, Mr. Elliott – DOS inspector, Eric Sutphen – HESS (732) 750-6000, and Gavin\_Ajahi Navarro – DEP Hazmat. Later, a Con Ed representative was on site.

I saw a line of free product along the curb on the south side of West 68th Street. Free product had pooled in front of the driveway to the garage for 1995 Broadway and in front of the driveway to the neighboring condominium building to the west. There was a little staining of a manhole cover which was in front of the driveway to the neighboring building. This made a line of about 120 feet of free product. The sidewalk and 3 Con Ed vaults next to 1995 Broadway were also affected (associated spill #1102137/EMIS #225923). The entire width of the sidewalk (15') was covered in oil next to the middle Con Ed vault. There was oil on the side of the building. This affected only some metal sheeting. I looked inside the middle vault (the only one I could easily see into) and didn't see free product inside, except for in a square, depression in the bottom of the vault. The fill port was in the sidewalk about 4 feet from the middle vault and was covered in oil. The passenger side of three parked cars were also covered in oil. The Crystal Transportation fuel delivery truck was still parked on site.

I spoke to Mr. Sutphen regarding how the spill happened and how bad it was. He said that about 150 gals. of #4 oil sprayed onto the street and the sidewalk and 60 gals. spilled under the tank in 1995 Broadway. He said that the building received a delivery yesterday up to a total volume of 8,000 gal. for the 20,000 gal. The super ordered another delivery today and the delivery truck driver pumped more oil into the tank. However, in the process of making the delivery, the oil started spraying out of the fill port in the sidewalk. It turned out that the gauge on the tank wasn't reading the volumes correctly. I asked Mr. Sutphen why the super. didn't know how much he needed. Mr. Sutphen said that the only way to tell how much oil should be delivered was for the super to keep delivery records. Mr. Sutphen didn't know whether the super kept such records. I told Mr. Sutphen about the stained Con Ed manhole cover and that some oil may have gotten down there. I also asked him about the sprayed cars. He said that the super told him that the owners will take their cars to the car wash and the building will reimburse them for the expense.

After viewing the spill on the street, I met the super and he showed me the tank room. The AST was on saddles. I could see a large stain with absorbent sand at the right end and a pool of free product under the left end of the tank. The super showed me the place on top of the tank where the oil had escaped and run down the sides. It seemed as if about 40 or 50 gallons of oil had spilled out. The vapors were noticeable in the tank room and less noticeable in the boiler room adjacent to the tank room. The odors were very slight outside of these two rooms and were not apparent in the basement hallway.

At about 1:30PM, the guzzler from Riteway Tank arrived. The delivery truck driver drove his truck away and the crew from Riteway started sucking up the oil on the street. The NYFD brought in their small fire truck for spraying the Con Ed vaults, if they should catch fire. I spoke to the crew from Riteway and they said that they will clean up the tank room after they clean up the street. The NYFD started removing their trucks. Everything looked to be under control. So I left the scene.

6/2/11 – Raphael Ketani. I tried to contact Mr. Sutphen (732) 750-6000 to see whether the spill had been cleaned up, but I could only leave a message. I contacted the Con Ed environmental desk (212) 580-8383, but they couldn't talk to me at the time regarding cleaning up the manhole (spill #1102137/EMIS #225923).

A little while later, I spoke to David Duke at the Con Ed environmental desk. He sent me the EMIS report. A total of 71 gals. of fuel oil had spilled into the 3 vaults and the manhole. These are vaults V9112, V9328, V9500 and SB12447. PCB and flash point samples were taken. One sample had 13 ppm of PCB. Clean Ventures came and sucked out the oil and cleaned the vaults and manhole. The work was completed on 5/31/11.

6/3/11 – Raphael Ketani. I made an unannounced site visit. I inspected the street and the sidewalk. All of the oil had been cleaned up. There were no oil odors and only very faint staining on the asphalt. The side of the building had also been cleaned. Next, I met Warren Ward, Jr., the building engineer (212) 362-1137/1139 – warrenw@cammebys.com. He showed me the tank room. The tank room was next to the boiler room. There were no oil odors. I sensed light oil odors only when Mr. Ward opened up the doors to the tank room. I asked him whether anyone had complained of odors. He said No. I could see many dark oil stains on the floor under the right end of the tank. Mr. Ward said that Riteway was coming back to repeat the power washing at this end. I saw two long, wide, wet oil marks on the side of the tank. I asked Mr. Ward whether any fittings or the man way gasket was leaking. He said that the stains were due to the original overfill and that nothing was loose. Next, I saw a line of drip marks under the left end of the tank. Again, I asked Mr. Ward whether there was a problem such as a seam that was about to open up. Mr. Ward said that this was also due to the overfill.

I returned to the office and contacted Eric Sutphen (732) 750-6637. I told Mr. Sutphen about the staining on the floor under each end of the tank and about the wide stains on the side of the tank. I added that someone needed to look at the top and under side

of the tank to see whether there are any loose fittings or whether a seam is about to break. Mr. Sutphen said that he will call Riteway and have them check out the situation and do more cleaning.

A little while later, Mr. Sutphen called and told me that Riteway is going to return to the tank today and check out the stains and the tank itself.

6/6/11 – Raphael Ketani. Mr. Sutphen (732) 750–6637 called me back. He said that Riteway was at the site friday (6/3/11). They cleaned up the top of the tank and the sides. Absorbent pads were put down to absorb any further dripping. The bottom of the tank was checked and there are no leaking seams. Mr. Sutphen added that the dripping is coming from the pillar (an enclosure around the vent pipe that is built into the surface covering for the building and contains the vent pipe). A few gallons of oil became trapped there and this is what is dripping out. The pads should be sufficient to contain the dripping.

As the spill was completely cleaned up on the street, in the Con Ed vaults and manhole, and is now very minor dripping of a small quantity of oil that is contained by the absorbent pads, and as there are no vapors outside of the tank room, I have determined that there are no impacts nor threats to the environment or to people. Therefore, I am closing the spill case.

**THE FOLLOWING CLOSED SPILLS FOR THIS CATEGORY WERE REPORTED BETWEEN 1/8 MILE AND 1/2 MILE FROM THE SUBJECT ADDRESS. THESE SPILLS WERE REPORTED TO BE LESS THAN 100 UNITS IN QUANTITY AND CAUSED BY: EQUIPMENT FAILURE, HUMAN ERROR, TANK OVERFILL, DELIBERATE SPILL, TRAFFIC ACCIDENT, HOUSEKEEPING, ABANDONED DRUM, VANDALISM OR STORMS. THESE SPILLS ARE NEITHER MAPPED NOR PROFILED IN THIS REPORT.**

| FACILITY ID | FACILITY NAME            | STREET                    | CITY      |
|-------------|--------------------------|---------------------------|-----------|
| 1310773     | APT COMPLEX              | 15 WEST 75TH ST           | MANHATTAN |
| 9911443     | SPILL NUMBER 9911443     | 14 W 83RD ST              | MANHATTAN |
| 1502684     | CENTRAL PARK             | W81 STREET                | MANHATTAN |
| 0311537     | CENTRAL PARK BUILD.      | 81ST STREET & WEST DRIVE  | NYC       |
| 9809382     | MANHOLE #29445           | CENTRAL PARK W AND W 77TH | MANHATTAN |
| 9007953     | 221–26 CENTRAL PARK WEST | 221–26 CENTRAL PARK WEST  | MANHATTAN |
| 1402568     | IFO                      | 106 WEST 75TH STREET      | MANHATTAN |
| 9914622     | MANHOLE #29453           | W 82ND ST & CENTRAL PK WS | MANHATTAN |
| 0650371     | APARTMENT                | 48 WEST 84TH STREET       | NEW YORK  |
| 0211813     | SPILL NUMBER 0211813     | 227 CENTRAL PARK WEST     | MANHATTAN |
| 9305485     | 169 WEST 80TH STREET     | 169 WEST 80TH STREET      | MANHATTAN |
| 9408575     | 40 W. 84TH STREET        | 40 W. 84TH STREET         | MANHATTAN |
| 9812027     | SPILL NUMBER 9812027     | 36 WEST 84TH ST           | MANHATTAN |
| 0608978     | APARTMENT                | 170 WEST 78TH STREET      | NEW YORK  |
| 0803964     | STREET COMPRESSOR        | 421 AMSTERDAM AVE         | NEW YORK  |
| 1311311     | APT BUILDING             | 175 WEST 76 ST            | NEW YORK  |
| 1309030     | APT BUILDING             | 175 WEST 76TH STREET      | NEW YORK  |
| 9415205     | 155 W. 83RD ST           | 155 W. 83RD ST            | MANHATTAN |
| 9311290     | 155 WEST 83TH STREET     | 155 WEST 83TH STREET      | MANHATTAN |
| 0108699     | SPILL NUMBER 0108699     | 155 WEST 83RD ST          | MANHATTAN |
| 0000233     | SPILL NUMBER 0000233     | 155 WEST 83RD ST          | MANHATTAN |

|         |                                                  |                           |               |
|---------|--------------------------------------------------|---------------------------|---------------|
| 0100096 | PROHIBITION                                      | 503 COLUMBUS AVE          | NEW YORK      |
| 9603575 | 455 AMSTERDAM AVE                                | 455 AMSTERDAM AVE         | MANHATTAN     |
| 9510636 | 54 WEST 74TH ST                                  | 54 WEST 74TH ST           | MANHATTAN     |
| 1407072 | TANK ROOM                                        | 54 WEST 74TH ST           | MANHATTAN     |
| 0101621 | ' VAULT 8754'                                    | 135 WEST 74TH ST          | MANHATTAN     |
| 9904107 | MANHOLE 25886                                    | WEST 79TH ST/AMSTERDAM AV | MANHATTAN     |
| 9606869 | ' AMSTERDAM AVE'                                 | WEST 79 TH STREET         | NYC           |
| 1501989 | STREET                                           | AMSTERDAM AVE AND 79TH ST | MANHATTAN     |
| 0110393 | 79TH ST                                          | AMSTERDAM AVE & 79TH ST   | NEW YORK CITY |
| 0107341 | PS 87                                            | WEST 78TH/AMSTERDAM AVE   | MANHATTAN     |
| 9911724 | 31 WEST 84TH ST                                  | 31 WEST 84TH ST           | MANHATTAN     |
| 9203092 | 36 W 74TH ST                                     | 36 W 74TH ST              | NYC           |
| 1505956 | SOIL                                             | 15 W 84TH ST              | MANHATTAN     |
| 9802298 | SPILL NUMBER 9802298                             | 424 AMSTERDAM AVE         | MANHATTAN     |
| 0109776 | BRUSCO RES                                       | 67 WEST 73RD ST           | MANHATTAN     |
| 9711224 | RESIDENCE                                        | 412 AMSTERDAM AVE         | NEW YORK      |
| 0304747 | APT BUILDING                                     | 200 WEST 79TH ST          | MANHATTAN     |
| 0013001 | SPILL NUMBER 0013001                             | 201 WEST 77TH ST          | MANHATTAN     |
| 9512768 | 10 WEST 74TH ST                                  | 10 WEST 74TH ST           | MANHATTAN     |
| 0211227 | X                                                | 10 WEST 74TH ST           | MANHATTAN     |
| 0105683 | 23 WEST 73RD ST                                  | 23 WEST 73RD ST           | MANHATTAN     |
| 0503395 | CON ED VEHICLE 60565                             | 344 AMSTERDAM AVE/W 76TH  | MANHATTAN     |
| 9900719 | SPILL NUMBER 9900719                             | 241 CENTRAL PARK WEST     | NEW YORK      |
| 9400203 | 125 W. 73RD STREET                               | 125 W. 73RD STREET        | NEW YORK      |
| 1401469 | COMMERCIAL BUILDING – VERIZON TELEPHONE EXCHANGE | 125 WEST 73RD STREET      | MANHATTAN     |
| 1110255 | COURT YARD                                       | 125 WEST 73RD ST          | MANHATTAN     |
| 1100737 | VERIZON BUILDING                                 | 125 WEST 73RD ST          | MANHATTAN     |
| 0601028 | VERIZON                                          | 125 WEST 73RD STREET      | MANHATTAN     |
| 0100776 | VERIZON                                          | 125 WEST 73RD ST          | NEW YORK      |
| 8907431 | 203 W 77TH ST/RENT A WREC                        | 203 WEST 77TH STREET      | NEW YORK CITY |
| 9815538 | VAULT #5776                                      | 106-48 WEST 85ST          | MANHATTAN     |
| 1411311 | CONCRETE FLOOR                                   | 334 AMSTERDAM AVE         | NEW YORK      |
| 0713513 | ROADWAY                                          | 279 COLUMBUS AVE          | MANHATTAN     |
| 9604061 | APT BUILDING                                     | 204 WEST 81ST ST          | MANHATTAN     |
| 9406607 | 204 W. 81ST STREET                               | 204 W. 81ST STREET        | NEW YORK      |
| 9510710 | 206 W. 80TH ST                                   | 206 W. 80TH ST            | NEW YORK      |
| 0100236 | RESIDENCE                                        | 135 CENTRAL PARK WEST     | MANHATTAN     |
| 9612346 | APT HOUSE                                        | 215 W.78TH ST             | NEW YORK      |
| 0313117 | SPILL NUMBER 0313117                             | 215 WEST 78TH ST          | MANHATTAN     |
| 9511396 | 100 WEST 73RD ST                                 | 100 WEST 73RD ST          | NEW YORK      |
| 0110078 | SPILL NUMBER 0110078                             | 215 WEST 79TH ST          | MANHATTAN     |
| 0601224 | NATIONAL CAR RENTAL                              | 219 WEST 77TH STREET      | NEW YORK      |
| 0710705 | APPT BUILDING                                    | 157 WEST 73RD STREET      | NEW YORK      |
| 9514644 | 220 WEST 79TH ST                                 | 220 WEST 79TH ST          | NEW YORK CITY |

|         |                                   |                               |               |
|---------|-----------------------------------|-------------------------------|---------------|
| 9313678 | 130 WEST 73RD STREET              | 130 WEST 73RD STREET          | NEW YORK      |
| 9313651 | 130 WEST 73RD STREET              | 130 WEST 73RD STREET          | MANHATTAN     |
| 9315420 | 216 WEST 76TH STREET              | 216 WEST 76TH STREET          | MANHATTAN     |
| 0312459 | SPILL NUMBER 0312459              | 160 WEST 85TH STREET          | MANHATTAN     |
| 8809399 | 41 W. 72ND ST                     | 41 W. 72ND ST                 | MANHATTAN     |
| 9000624 | 85TH ST&CENTRAL PARK WEST         | 85TH ST&CENTRAL PARK WEST     | NEW YORK CITY |
| 0609200 | MIKVAH                            | 232-234 WEST 78 STREET        | MANHATTAN     |
| 1300513 | RUDIN MANAGEMENT                  | 40 WEST 86TH ST               | MANHATTAN     |
| 1214441 | CORLISS ESTATE INC                | 40 WEST 86TH ST               | NEW YORK      |
| 1104762 | PRIVATE DWELLING                  | 40 WEST 86TH                  | MANHATTAN     |
| 0109971 | 40 WEST 86TH STREET               | 40 WEST 86TH STREET           | MANHATTAN     |
| 9306612 | 1 WEST 85TH STREET                | 1 WEST 85TH STREET            | NEW YORK      |
| 9306185 | 1 WEST 85TH STREET                | 1 WEST 85TH STREET            | MANHATTAN     |
| 0310188 | SIDEWALK                          | 1 WEST 85TH STREET            | NEW YORK      |
| 1112010 | SOIL                              | 2182 BROADWAY                 | NEW YORK      |
| 0305398 | TM0964                            | 225 W. 77TH ST                | MANHATTAN     |
| 9811944 | 117 WEST 72 STREET                | WALTER COOK FUNERAL HOME      | MANHATTAN     |
| 9712410 | OFFICE BLDG - FORMER FUNERAL HOME | 117 WEST 72ND ST              | MANHATTAN     |
| 9310292 | 117 WEST 72ND STREET              | 117 WEST 72ND STREET          | MANHATTAN     |
| 9213253 | 117 WEST 72ND STREET              | 117 WEST 72ND STREET          | MANHATTAN     |
| 9110170 | 117 W 72ND ST/WALTER B.C.         | 117 W 72ND ST                 | NYC           |
| 9403602 | 121 WEST 72ND STREET              | 121 WEST 72ND STREET          | NEW YORK CITY |
| 9212855 | 2130 BROADWAY                     | 2130 BROADWAY                 | NYC           |
| 9104154 | 150 W 73RD ST                     | 150 W 73RD ST                 | NYC           |
| 9904453 | MANHOLE #29419                    | W 73RD ST & CENTRAL PK W      | MANHATTAN     |
| 9400795 | 131 W.72ND STREET                 | 131 W. 72ND STREET            | NEW YORK      |
| 1010759 | ALEXANDER WOLFE REALTY            | 10 WEST 86 TH ST              | MANHATTAN     |
| 9911339 | WALKER RESIDENCE                  | 225 WEST 80TH ST              | MANHATTAN     |
| 1000721 | IN THE ROADWAY                    | 240 WEST 79TH ST              | MANHATTAN     |
| 9211310 | 76TH ST BET. BROADWAY             | 76TH ST BET BROADWAY          | NEW YORK      |
| 0708111 | TRANSIT                           | WEST 86TH /COLUMBUS AVE       | NEW YORK      |
| 0601467 | LEAK FROM TRANSFORMER #3057       | WEST 86 STREET & COLUMBUS AVE | MANHATTAN     |
| 0110610 | SPILL NUMBER 0110610              | 86TH ST & COLUMBUS AV         | MANHATTAN     |
| 0105629 | ROADWAY                           | W 86TH ST & COLUMBUS AVE      | NEW YORK      |
| 0404419 | INTERSECTION                      | 72ND ST / COLUMBUS AVE        | MANHATTAN     |
| 0709217 | APRTMENT                          | 140 WEST 86TH STREET          | MANHATTEN     |
| 0500614 | BULILDING                         | 140 WEST 86TH STREET          | MANHATTAN     |
| 0804641 | ON STREET                         | BROADWAY /75TH STREET         | MANHATTAN     |
| 0409950 | RESIDENCE                         | 163 WEST 85TH ST              | MANHATTAN     |
| 1405120 | ROADWAY                           | 77TH / BROADWAY               | MANHATTEN     |
| 9709701 | APT BLDG                          | 2112 BROADWAY                 | MANHATTAN     |
| 0301262 | SPILL NUMBER 0301262              | 2100 BROADWAY                 | NEW YORK      |
| 0301257 | APPLE BANK                        | 2112 BROADWAY                 | MANHATTAN     |
| 9516341 | 269-75 AMSTERDAM AVENUE           | 269-75 AMSTERDAM AVENUE       | NEW YORK      |

|         |                           |                               |               |
|---------|---------------------------|-------------------------------|---------------|
| 0601671 | ROADWAY                   | 79TH STREET/ BROADWAY         | MANHATTAN     |
| 0711780 | APRT                      | 50 WEST 72ND STREET           | NEW YORK      |
| 0510405 | APARTMENT                 | 45 WEST 86TH STREET           | MANHATTAN     |
| 0209508 | SPILL NUMBER 0209508      | 27 W 86TH ST                  | MANHATTAN     |
| 0409728 | 20 WEST 72ND ST           | 20 WEST 72ND ST               | MANHATTAN     |
| 9008767 | 123 WEST 86TH ST/MANH     | 123 WEST 86TH STREET          | NEW YORK CITY |
| 0110029 | SPILL NUMBER 0110029      | 115 W. 86TH ST                | MANHATTAN     |
| 9407299 | 21 W. 86TH ST             | 21 W. 86TH ST                 | MANHATTAN     |
| 9712363 | 127 WEST 86TH ST          | 127 WEST 86TH ST              | MANHATTAN     |
| 0707626 | STREET SPILL              | 86TH ST/CENTRAL PL WEST       | MANHATTAN     |
| 9314384 | 235 WEST 76TH STREET      | 235 WEST 76TH STREET          | MANHATTAN     |
| 0811804 | 235 WEST 76TH ST          | 235 WEST 76TH ST              | MANHATTEN     |
| 0000737 | CARAN PROPERTIES          | 235 W 75TH ST                 | MANHATTAN     |
| 9911858 | BELLECLAIRE HOTEL         | 250 W 77TH ST                 | NEW YORK      |
| 9911658 | BELLECLAIRE HOTEL         | 250 WEST 77TH STREET          | NEW YORK      |
| 0603176 | BELLE CLAIRE HOTEL        | 250 WEST 77TH STRET           | MANHATTAN     |
| 0212729 | BELLECLAIRE HOTEL         | 250 WEST 77TH STREET          | NEW YORK      |
| 9809564 | 131 W 86TH ST             | 131 W 86TH ST                 | MANHATTAN     |
| 0610931 | THE JEWISH CENTER / APART | 131 WEST 86TH ST              | NEW YORK      |
| 9211666 | 233 W. 77TH ST.           | 233 W. 77TH ST.               | MANHATTAN     |
| 0308388 | SPILL NUMBER 0308388      | CENTRAL PK WEST/72ND ST       | MANHATTAN     |
| 0809874 | ODOR COMPLAIN             | 250 W. 78TH ST                | MANHATTAN     |
| 9210572 | 203 WEST 85TH AVE         | 203 WEST 85TH AVE             | MANHATTAN     |
| 9814593 | 115 CENTRAL PARK WEST     | 115 CENTRAL PARK WEST         | MANHATTAN     |
| 9611715 | 241 WEST 75TH ST          | 241 WEST 75TH ST              | MANHATTAN     |
| 9004567 | 124 WEST 87TH ST/MANH     | 124 WEST 87TH STREET          | NEW YORK CITY |
| 9009087 | 242 WEST 76TH ST/MANH     | 242 WEST 76TH STREET          | NEW YORK CITY |
| 0010100 | VAULT 2188                | 258 AMSTERDAM AV              | MANHATTAN     |
| 9911265 | 133-135 WEST 71ST STREET  | 133-135 WEST 71ST STREET      | MANHATTAN     |
| 9608042 | APARTMENT BUILDING        | 17 WEST 71ST ST               | NEW YORK CITY |
| 9612997 | 249 WEST 76TH ST          | 249 WEST 76TH ST              | MANHATTAN     |
| 1002489 | PRIVATE DWELLING          | 142 WEST 87TH STREET APT. 1B  | MANHATTAN     |
| 0612514 | FIVE GAL IN VS #8706      | WEST 71 STREET & COLUMBUS AVE | MANHATTAN     |
| 9516342 | AMSTERDAM AVE / COR       | W. 72ND ST/ AMSTERDAM AVE     | MANHATTAN     |
| 9411753 | AMSTERDAM AVE / W 72ND ST | AMSTERDAM AVE / W 72ND ST     | MANHATTAN     |
| 9711062 | 2109 BROADWAY             | 2109 BROADWAY                 | MANHATTAN     |
| 9400880 | 252 W 76TH ST             | 252 W 76TH ST                 | MANHATTAN     |
| 9010504 | 174 WEST 72ND ST/MANH     | 174 WEST 72ND STREET          | NEW YORK CITY |
| 1214306 | RESIDENTIAL PROPERTY      | 424 WESTEND AVE               | NEW YORK      |
| 0308515 | SPILL NUMBER 0308515      | 424 WEST END AV               | MANHATTAN     |
| 8809554 | 200 WEST 86TH ST          | 200 W. 86TH ST                | MANHATTAN     |
| 0510057 | APRT BUILDING             | 200 W 86TH ST                 | MANHATTAN     |
| 0011825 | 200 WEST 86TH STREET      | 200 WEST 86TH STREET          | MANHATTAN     |
| 9907551 | VAULT 4597                | 354-360 WEST END AVE          | NEW YORK      |

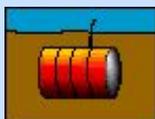
|         |                                     |                           |               |
|---------|-------------------------------------|---------------------------|---------------|
| 9007524 | 37 WEST 87TH ST/MANH                | 37 WEST 87TH STREET       | NEW YORK CITY |
| 9214440 | CENTRAL PARK LAKE                   | 74TH ST / 75TH ST         | MANHATTAN     |
| 1503431 | ROADWAY                             | WEST 76 ST WEST END ST    | MANHATTEN     |
| 1306753 | APT BUILDING                        | 112 WEST 71 ST            | NEW YORK      |
| 9811566 | APARTMENT BLDG                      | 245 WEST 74TH ST          | MANHATTAN     |
| 9514752 | 245 W 74TH ST                       | 245 W 74TH ST             | MANHATTAN     |
| 8808089 | 245 WEST 74TH ST/MANHATTA           | 245 WEST 74TH STREET      | NEW YORK CITY |
| 0610110 | 171 WEST 71ST ST CORPORAT           | 171 WEST 71ST ST          | MANHATTAN     |
| 9308063 | 470 WEST END AVE.                   | 470 WEST END AVE.         | MANHATTAN     |
| 1309212 | LEAKING #6 FUEL OIL FILL LINE       | 470 WEST END AVENUE       | MANHATTAN     |
| 1213648 | SPILL OF #6 FUEL OIL TO PAVEMENT    | 176 WEST 87TH ST          | MANHATTAN     |
| 9900060 | MANHOLE 27538                       | WEST 85TH ST              | MANHATTAN     |
| 1005809 | SOIL CONTAMINATION AROUND FILL LINE | 2350 BROADWAY             | MANHATTAN     |
| 8905373 | THE DANIELLE                        | 140 W 71ST ST             | MANHATTAN     |
| 0008110 | MANHOLE 49876                       | 81ST ST/WEST END AVE      | MANHATTAN     |
| 9814400 | VAULT 9262                          | WEST 82ND ST+WEST END AVE | NEW YORK      |
| 0711988 | RESIDANCE                           | 490 WEST END AVE          | NEW YORK      |
| 0312441 | SPILL NUMBER 0312441                | 490 WEST END AVE          | MANHATTAN     |
| 0408279 | AMERICAN MUSIC ACADEMY              | 117 WEST 70TH STREET      | MANHATTAN     |
| 0003469 | SPILL NUMBER 0003469                | 117 WEST 70TH ST          | MANHATTAN     |
| 9414934 | 167 WEST 87TH STREET                | 167 WEST 87TH ST          | MANHATTAN     |
| 9414917 | 167 WEST 87TH STREET                | 167 WEST 87TH STREET      | MANHATTAN     |
| 0308671 | FRONT OF                            | 310 WEST END AVE          | MANHATTAN     |
| 0211665 | SPILL NUMBER 0211665                | 31 WEST 70TH ST           | MANHATTAN     |
| 9514647 | 125-127 W 70TH ST                   | 125-127 W 70TH ST         | MANHATTAN     |
| 9812057 | PROJECT FIND                        | 160 WEST 71ST STREET      | MANHATTAN     |
| 9611068 | 300 WEST END                        | 300 WEST END AVE          | NEW YORK      |
| 9512171 | 300 WEST END AVE                    | 300 WEST END AVENUE       | MANHATTAN     |
| 9512127 | 300 WEST END AVENUE                 | 300 WEST END AVENUE       | MANHATTAN     |
| 1411626 | APT BUILDING                        | 300 WEST END AVE          | NY            |
| 0303268 | IN ROADWAY                          | IFO 72 W 88TH ST          | MANHATTAN     |
| 0706336 | DRUM RUN                            | WEST 87TH & AMSTERDAM AVE | NEW YORK      |
| 9309189 | 498 WEST END AVENUE                 | 498 WEST END AVENUE       | MANHATTAN     |
| 0209976 | CALHOUN SCHOOL                      | 433 WEST END AVENUE       | MANHATTAN     |
| 9910343 | SPILL NUMBER 9910343                | 411 WEST END AVE          | MANHATTAN     |
| 1408775 | UNKNOWN COMMERCIAL                  | 393 WEST END AVE          | NEW YORK      |
| 0902447 | IN THE STREET                       | 441 WESTEND AVE           | MANHATTAN     |
| 0001972 | SPILL NUMBER 0001972                | 441 WEST END AVE          | MANHATTAN     |
| 0209204 | SPILL NUMBER 0209204                | 290 WEST END AVE          | MANHATTAN     |
| 0712390 | NYC TRANSIT BUS                     | WEST 86TH & BROADWAY      | MANHATTEN     |
| 0704052 | 15 GALLON HYDRAULIC FLUID RELEASE   | 247 WEST 72 STREET        | MANHATTAN     |
| 9200885 | 306 W 78TH ST                       | 306 W 78TH ST             | NYC           |
| 9907731 | SPILL NUMBER 9907731                | 2345 BROADWAY             | MANHATTAN     |
| 9607614 | APARTMENT BLDG                      | 104 WEST 70TH ST          | MANHATTAN     |

|         |                                   |                                             |               |
|---------|-----------------------------------|---------------------------------------------|---------------|
| 1107587 | MANHOLE 49908                     | WEST 84TH ST AND WEST END AVE               | MANHATTAN     |
| 9301318 | 325 WEST END AVE                  | 325 WEST END AVE                            | MANHATTAN     |
| 9515270 | DEBRA BURNS                       | 270 WEST 73RD STREET                        | MANHATTAN     |
| 9909521 | 514 WEST END AVENUE               | 514 WEST END AVE                            | MANHATTAN     |
| 9414188 | 514 WEST END AVENUE               | 514 WEST AVENUE                             | MANHATTAN     |
| 0913348 | GERALD J PICASSO – MANAGING AGENT | 514 WEST END AVE                            | MANHATTAN     |
| 1310341 | APT BUILDING                      | 101 CENTRAL PARK WEST                       | NEW YORK      |
| 1006809 | APARTMENT HOUSE                   | 253 WEST 72ND                               | MANHATTAN     |
| 0808763 | ROADWAY                           | WEST 79 TH ST BY WESTEND AVE & RIVERSIDE DR | MANHATTAN     |
| 0708027 | APTS                              | 495 WEST END AVE                            | MANHATTAN     |
| 0814056 | APARTMENT BUILDING                | 240 WEST 72ND ST                            | MANHATTAN     |
| 9407285 | 154 W. 70TH STREET                | 154 W. 70TH ST                              | MANHATTAN     |
| 1203045 | APARTMENT BUILDING                | 2030 BROADWAY                               | MANHATTAN     |
| 9516146 | 201 W 70TH ST                     | 201 W 70TH ST                               | MANHATTAN     |
| 9214267 | 276 W 86 STREET                   | 276 W 86TH STREET                           | MANHATTAN     |
| 0701893 | EDEN RESIDENCE                    | 321 WEST 78TH ST 4A                         | NEW YORK      |
| 0701554 | BATHROOM APT 4A                   | 321 WEST 78TH ST                            | MANHATTAN     |
| 0410461 | 522 WEST END AVE                  | 522 WEST END AVE                            | MANHATTAN     |
| 9808617 | APARTMENT BLDG                    | 115 WEST 69TH ST                            | MANHATTAN     |
| 0008242 | MANHOLE 61729                     | WESTEND AVE 85TH ST                         | MANHATTAN     |
| 0412575 | RTVS #5993                        | WEST 88TH /AMSTERDAM AVE                    | MANHATTAN     |
| 9413585 | 19 W. 69TH ST                     | 19 W. 69TH ST                               | MANHATTAN     |
| 0105493 | GLIEBERMAN RESIDENCE              | 133 WEST 69TH ST                            | MANHATTAN     |
| 9109064 | 135 W 69TH ST/D SANDBORN          | 135 W 69TH ST/D SANDBORN                    | MANHATTAN     |
| 0208108 | X                                 | 11 WEST 69TH ST                             | MANHATTAN     |
| 9412996 | RESIDENCE                         | 321 WEST 82ND STREET                        | NEW YORK CITY |
| 9007056 | 320 WEST 76TH ST/MANH             | 320 WEST 76TH STREET                        | NEW YORK CITY |
| 9011296 | 98 RIVERSIDE DR/MANH              | 98 RIVERSIDE DRIVE                          | NEW YORK CITY |
| 9503832 | 80 RIVERSIDE DRIVE                | 80 RIVERSIDE DRIVE                          | NEW YORK      |
| 1210202 | INSIDE                            | 80 RIVERSIDE DRIVE                          | NEW YORK      |
| 0805195 | APARTMENT BUILD                   | 316 WEST 84TH STREET                        | MANHATTAN     |
| 9410131 | CHRISTIAN COMMUNITY INC.          | 309 W. 74TH ST.                             | NEW YORK      |
| 8804857 | HARSHIT CONSTRUCTION              | 246 W 88TH ST                               | NYC           |
| 0512072 | BUILDING                          | 255 WEST 71ST STREET                        | MANHATTAN     |
| 0013657 | SPILL NUMBER 0013657              | 60 RIVERSIDE DR                             | NEW YORK      |
| 9313840 | 261 WEST 71ST STREET              | 261 WEST 71ST STREET                        | MANHATTAN     |
| 9311832 | 39 WEST 89TH STREET               | 39 WEST 89TH STREET                         | MANHATTAN     |
| 9210925 | 39 WEST 89TH STREET               | 39 WEST 89TH STREET                         | MANHATTAN     |
| 1216853 | APARTMENT BUILDING                | 310 W 85TH ST                               | MANHATTAN     |
| 9412865 | 205 WEST 88TH ST                  | 205 WEST 88TH ST                            | MANHATTAN     |
| 9313957 | 35 WEST 89TH STREET               | 35 WEST 89TH STREET                         | MANHATTAN     |
| 0900272 | APARTMENT HOUSE                   | 260 WEST END AVE                            | NEW YORK CITY |
| 1203665 | TO ROADWAY                        | 79TH ST @ RIVERSIDE DR                      | MAHATTAN      |
| 0506702 | TRANSIT STREET SPILL              | WEST 79TH AND RIVERSIDE D                   | MANHATTAN     |

|         |                                                 |                                      |               |
|---------|-------------------------------------------------|--------------------------------------|---------------|
| 0506110 | NYS TRANSIT                                     | 79TH ST & RIVERSIDE AVE              | MANHATTAN     |
| 9500014 | 244 W. 71ST STREET                              | 244 W. 71ST STREET                   | MANHATTAN     |
| 1203088 | OPEN EXCAVATION SITE                            | 86TH ST AND WEST END AVE             | MANHATTAN     |
| 9308724 | 269 WEST 71ST STREET                            | 269 WEST 71ST STREET                 | MANHATTAN     |
| 9410867 | 271 W. 71ST STREET                              | 271 W. 71ST                          | MANHATTAN     |
| 0210053 | VAULT #5625                                     | CENTRAL PARK WEST/W 69TH             | MANHATTAN     |
| 9302362 | COLUMBIA AVE                                    | CON ED                               |               |
| 1012274 | PVT DWELLING/APT BUILDING                       | 129 WEST 89 ST                       | MANHATTAN     |
| 1012266 | SIDEWALK AND APT                                | 129 WEST 89TH ST                     | MANHATTAN     |
| 9506709 | 137 WEST 89TH STREET                            | 137 WEST 89TH STREET                 | NEW YORK      |
| 9911285 | SPILL NUMBER 9911285                            | 107 W. 68TH ST                       | MANHATTAN     |
| 9305204 | 552 WEST END AVENUE                             | 552 WEST END AVENUE                  | MANHATTAN     |
| 0907992 | 35 UNIT BROWNSTONE                              | 182 COLUMBUS AVE                     | MANHATTAN     |
| 1600580 | ROADWAY                                         | 89TH STREET/ AMSTERDAM AVE           | NEW YORK      |
| 0008812 | SPILL NUMBER 0008812                            | 25 WEST 68TH ST                      | MANHATTAN     |
| 0504055 | CLERMONT RIDING ACA                             | 175 WEST 89TH STREET                 | NEW YORK      |
| 0413122 | RESIDENTIAL BUILDING                            | 22 RIVERSIDE DRIVE                   | MANHATTAN     |
| 9712539 | 4 WEST 90TH ST                                  | 4 WEST 90TH ST                       | MANHATTAN     |
| 9412328 | 337 W. 84TH ST                                  | 337 W. 84TH ST                       | MANHATTAN     |
| 9602292 | 295 CENTRAL PARK WEST                           | 295 CENTRAL PARK WEST                | MANHATTAN     |
| 9000229 | 295 CENTRAL PARK WEST/MAN                       | 295 CENTRAL PARK WEST                | NEW YORK CITY |
| 0704133 | CENTRAL PARK 79TH ST MAIN                       | OFF EAST DRIVE                       | NEW YORK      |
| 1108171 | INTERSECTION                                    | WEST END AVE 87 STREET               | NEW YORK      |
| 9412863 | 255 WEST END AVENUE                             | 255 WEST END AVENUE                  | MANHATTAN     |
| 9812671 | VAULT #4957                                     | W 90TH ST W OF COLUMBUS A            | NEW YORK      |
| 0906423 | APT BLDG                                        | 80 CENTRAL PARK WEST                 | MANHATTAN     |
| 1215526 | APARTMENT BLDG                                  | 110 RIVERSIDE DR                     | MANHATTAN     |
| 0500375 | 240 WEST END AVE                                | 240 WEST END AVE                     | MANHATTAN     |
| 0200670 | 87TH STREET AND                                 | WESTEND AVE                          | MANHATTAN     |
| 1200956 | NYCT TRANSMISSION FLUID SPILL                   | WEST END AVE BET 71ST ST AND 72ND ST | NEW YORK      |
| 1009288 | APARTMENT BUILDING                              | 216 WEST 89TH ST                     | MANHATTAN     |
| 9712590 | 243 WEST END AVE                                | 243 WEST END AVE                     | MANHATTAN     |
| 9603159 | 243 WEST END AVE                                | 243 WEST END AVE                     | MANHATTAN     |
| 9600407 | 243 W. END AVE                                  | 243 W. END AVE                       | MANHATTAN     |
| 0814271 | 212383; W 68 ST AND BROADWAY                    | W 68 ST AND BROADWAY                 | NEW YORK      |
| 0107104 | SPILL NUMBER 0107104                            | 234 WEST END AVENUE                  | MANHATTAN     |
| 0900413 | UNKNOWN                                         | 55 WEST 90TH STREET                  | MANHATTAN     |
| 9713753 | 255 WEST 88TH STREET                            | 255 WEST 88TH STREET                 | MANHATTAN     |
| 9211392 | 27 W 90TH STREET                                | 27 W 90TH STREET                     | NEW YORK      |
| 0307849 | SPILL NUMBER 0307849                            | W 68TH ST & CENTRAL PK W             | MANHATTAN     |
| 0812066 | 300 CENTRAL PARK WEST/WEST 90 ST AND WEST 91 ST | 300 CENTRAL PARK WEST                | MANHATTAN     |
| 0807623 | EAST NY TRUCK SHOP                              | 1997 BROADWAY                        | NEW YORK      |
| 9913314 | APT HOUSE                                       | 328 WEST 86TH ST                     | MANHATTAN     |
| 0412763 | COOPER SQUARE REALITY                           | 235 WEST END AVE                     | MANHATTAN     |



***NO OIL STORAGE FACILITIES LARGER THAN 400,000 GALLONS IDENTIFIED WITHIN 1/8 MILE SEARCH RADIUS***



**PETROLEUM BULK STORAGE FACILITIES LESS THAN 400,000 GALLONS IDENTIFIED WITHIN THE 1/8 MILE SEARCH RADIUS**

PLEASE NOTE: \* Compass directions can vary substantially for sites located very close to the subject property address.

**Map Identification Number 303**      **AMERICAN MUSEUM OF NATURAL HISTORY**      **Facility Id: 2-611190**      **Source: NYS DEC**  
 AMERICAN MUSEUM OF NATURAL HISTORY      NEW YORK, 10024      TT-Id: 640A-0086-712

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 111 feet to the ESE\*

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: KALA HARINARAYANAN  
 Owner Name: KALA HARINARAYANAN – SR. DIRECTOR OF EHS  
 Owner Company: AMERICAN MUSEUM OF NATURAL HISTORY  
 Owner Address: 200 CENTRAL PARK WEST, NEW YORK, NY 10024

Operator Phone #: (212) 769-5226  
 Owner Type:

| TANK NUMBER | TANK STATUS       | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                            | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------------|--------------|------------------|------------------------------------------|--------------|-----------|------------|
| 1           | In Service        | Diesel       | 6000             | Underground                              | 01/01/2005   |           |            |
| 2           | Closed – In Place | Diesel       | 1080             | Underground                              | 01/01/1989   |           | 05/28/2001 |
| 3           | In Service        | Diesel       | 1080             | Abovegrnd – In Contact w/Imperv. Barrier | 01/01/2004   |           |            |
| 4           | In Service        | Diesel       | 500              | Abovegrnd – In Contact w/Imperv. Barrier | 01/01/1997   |           |            |
| 5           | In Service        | Diesel       | 200              | Abovegrnd – In Contact w/Imperv. Barrier | 01/01/2005   |           |            |
| 6           | In Service        | Diesel       | 50               | Abovegrnd – In Contact w/Imperv. Barrier | 01/01/1988   |           |            |

TANK NUMBER: 1      TANK TYPE: Fiberglass Reinforced Plastic (FRP)      TK INT. PROTECTION: None  
 TANK EXT. PROTECTION: Fiberglass      TANK LEAK DETECTN: Interstitial – Electronic Monitoring      TK SEC. CONTAINMNT: Double-Walled (Underground)  
 PIPING EXT. PROTECTN: Fiberglass      PIPING LEAK DETECTN: Interstitial – Electronic Monitoring      PIPE SEC. CONTAINMNT: Double-Walled (Underground)  
 PIPING TYPE: Steel/Carbon Steel/Iron      PIPING LOCATION: Aboveground/Underground Combination  
 OVERFILL PROTECTION: High Level Alarm      SPILL PREVENTION: Catch Basin      DISPENSER METHOD: Suction  
 Automatic Shut-Off

TANK NUMBER: 2      TANK TYPE: Steel/Carbon Steel/Iron      TK INT. PROTECTION: Epoxy Liner  
 TANK EXT. PROTECTION: None      TANK LEAK DETECTN: Interstitial – Electronic Monitoring      TK SEC. CONTAINMNT: Double-Walled (Underground)  
 PIPING EXT. PROTECTN: None      PIPING LEAK DETECTN: None      PIPE SEC. CONTAINMNT: None  
 PIPING TYPE: Galvanized Steel      PIPING LOCATION: Aboveground/Underground Combination  
 OVERFILL PROTECTION: High Level Alarm      SPILL PREVENTION: Catch Basin      DISPENSER METHOD: Suction

TANK NUMBER: 3      TANK TYPE: Steel/Carbon Steel/Iron      TK INT. PROTECTION: None  
 TANK EXT. PROTECTION: Painted/Asphalt Coating      TANK LEAK DETECTN: Imperv. Barrier/Concrete Pad (A/G)      TK SEC. CONTAINMNT: Vault (w/access)

\*\*\*\* TANK INFO FOR THIS SITE CONTINUES ON NEXT PAGE \*\*\*\*

|                                                                                                                                                                                                                  |                                                                                                                                                                                               |                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PIPING EXT. PROTECTN: None<br>PIPING TYPE: Galvanized Steel<br>OVERFILL PROTECTION: High Level Alarm<br>Automatic Shut-Off                                                                                       | PIPING LEAK DETECTN: Other<br>PIPING LOCATION: Aboveground<br>SPILL PREVENTION: Other                                                                                                         | PIPE SEC. CONTAINMNT: Unmodified Double-Wall (Abovegrd)<br>DISPENSER METHOD: Suction                                                                       |
| TANK NUMBER: 4<br>TANK EXT. PROTECTION: Painted/Asphalt Coating<br>PIPING EXT. PROTECTN: Painted/Asphalt Coating<br>PIPING TYPE: Galvanized Steel<br>OVERFILL PROTECTION: High Level Alarm<br>Automatic Shut-Off | TANK TYPE: Steel/Carbon Steel/Iron<br>TANK LEAK DETECTN: Imperv. Barrier/Concrete Pad (A/G)<br>PIPING LEAK DETECTN: Other<br>PIPING LOCATION: Aboveground<br>SPILL PREVENTION: Other          | TK INT. PROTECTION: None<br>TK SEC. CONTAINMNT: Diking (Aboveground)<br>PIPE SEC. CONTAINMNT: None<br>DISPENSER METHOD: Suction                            |
| TANK NUMBER: 5<br>TANK EXT. PROTECTION: Painted/Asphalt Coating<br>PIPING EXT. PROTECTN: None<br>PIPING TYPE: Galvanized Steel<br>OVERFILL PROTECTION: High Level Alarm<br>Automatic Shut-Off                    | TANK TYPE: Steel/Carbon Steel/Iron<br>TANK LEAK DETECTN: In-Tank System (ATG)<br>PIPING LEAK DETECTN: Other<br>PIPING LOCATION: Aboveground<br>SPILL PREVENTION: Other                        | TK INT. PROTECTION: None<br>TK SEC. CONTAINMNT: Diking (Aboveground)<br>PIPE SEC. CONTAINMNT: None<br>DISPENSER METHOD: Suction                            |
| TANK NUMBER: 6<br>TANK EXT. PROTECTION: Painted/Asphalt Coating<br>PIPING EXT. PROTECTN: None<br>PIPING TYPE: Galvanized Steel<br>OVERFILL PROTECTION: High Level Alarm<br>Automatic Shut-Off                    | TANK TYPE: Steel/Carbon Steel/Iron<br>TANK LEAK DETECTN: Imperv. Barrier/Concrete Pad (A/G)<br>Other<br>PIPING LEAK DETECTN: Other<br>PIPING LOCATION: Aboveground<br>SPILL PREVENTION: Other | TK INT. PROTECTION: None<br>TK SEC. CONTAINMNT: Diking (Aboveground)<br>Impervious Underlayment<br>PIPE SEC. CONTAINMNT: None<br>DISPENSER METHOD: Suction |

**Map Identification Number 304**    **AMERICAN MUSEUM OF NATUR**  
 179 CENTRAL PARK W

**Facility Id: NY01442**    **Source: NYC FIRE DEPT**  
 NEW YORK, NY 10024    TT-Id: 660A-0005-119

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (2)  
 Approximate distance from property: 111 feet to the ESE\*

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: SECTION 15 ROOM 22, 1ST FLOOR.

**Map Identification Number 305** **THE ORLEANS**  
 100 WEST 80TH STREET

NEW YORK, 10024

**Facility Id: 2-453811**

**Source: NYS DEC**  
 TT-Id: 640A-0031-601

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 129 feet to the NNW\*

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: N. STOJKOVIC (SUPERINTENDT)  
 Owner Name: DAVID STERLING – MEMBER  
 Owner Company: ORLEANS REALTY LLC  
 Owner Address: 100 WEST 80TH STREET, NEW YORK, NY 10024

Operator Phone #: (212) 362-5500  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #2 Fuel Oil  | 4800             | Aboveground on Crib Rack or Cradle | 10/10/1979   |           |            |

The following tank 001 content has been deleted or replaced: #4 Fuel Oil

|                                               |                                                       |                                                       |
|-----------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|
| TANK NUMBER: 001                              | TANK TYPE: Steel/Carbon Steel/Iron                    | TK INT. PROTECTION: None                              |
| TANK EXT. PROTECTION: Painted/Asphalt Coating | TANK LEAK DETECTN: Imperv. Barrier/Concrete Pad (A/G) | TK SEC. CONTAINMNT: Vault (w/access)                  |
| PIPING EXT. PROTECTN: Painted/Asphalt Coating | PIPING LEAK DETECTN: Interstitial – Manual Monitoring | PIPE SEC. CONTAINMNT: Vault (w/access)                |
| PIPING TYPE: Steel/Carbon Steel/Iron          | PIPING LOCATION: Aboveground                          |                                                       |
| OVERFILL PROTECTION: Vent Whistle             | SPILL PREVENTION: Catch Basin                         | DISPENSER METHOD: On Site Heating System (Supply/Ret) |

**Map Identification Number 306** **PARC 77**  
 50-52 WEST 77TH STREET

NEW YORK, 10024

**Facility Id: 2-605641**

**Source: NYS DEC**  
 TT-Id: 640A-0029-851

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 129 feet to the SSW\*

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: MZAM AHMAD  
 Owner Name: DENISE BEIHOFFER – VICE PRESIDENT  
 Owner Company: ERP OPERATETING LIMITED PARTNERSHIP  
 Owner Address: 2N RIVERSIDE PLAZA, SUITE 400, CHICAGO, IL 60606

Operator Phone #: (212) 873-1000  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 1           | In Service  | #6 Fuel Oil  | 10000            | Aboveground on Crib Rack or Cradle | 01/01/1955   |           |            |

|                                               |                                            |                                        |
|-----------------------------------------------|--------------------------------------------|----------------------------------------|
| TANK NUMBER: 1                                | TANK TYPE: Steel/Carbon Steel/Iron         | TK INT. PROTECTION: None               |
| TANK EXT. PROTECTION: Painted/Asphalt Coating | TANK LEAK DETECTN: None                    | TK SEC. CONTAINMNT: Vault (w/o access) |
| PIPING EXT. PROTECTN: Painted/Asphalt Coating | PIPING LEAK DETECTN: Exempt Suction Piping | PIPE SEC. CONTAINMNT: Vault (w/access) |

\*\*\*\* TANK INFO FOR THIS SITE CONTINUES ON NEXT PAGE \*\*\*\*

PIPING TYPE: Steel/Carbon Steel/Iron  
 OVERFILL PROTECTION: Product Level Gauge (A/G)  
 Vent Whistle  
 PIPING LOCATION: Aboveground  
 SPILL PREVENTION: None  
 DISPENSER METHOD: Suction

**Map Identification Number 307** **64-66 W 77 ST** **Facility Id: 2-148075** **Source: NYS DEC**  
 66 WEST 77TH STREET NEW YORK, 10024 TT-Id: 640A-0032-247

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 140 feet to the SW\*

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: VIDAL RAMOS Operator Phone #: (917) 670-4782  
 Owner Name: ARIEL GRUNBERG - MEMBER Owner Type: Corporate or Commercial  
 Owner Company: FANNY GRUNBERG & ASSOCIATES, LLC.  
 Owner Address: 928 BROADWAY SUITE 1105, NEW YORK, NY 10010

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #2 Fuel Oil  | 4000             | Aboveground on Crib Rack or Cradle | 01/01/1997   |           |            |

TANK NUMBER: 001 TANK TYPE: Steel/Carbon Steel/Iron TK INT. PROTECTION: None  
 TANK EXT. PROTECTION: None TANK LEAK DETECTN: None TK SEC. CONTAINMNT: Vault (w/o access)  
 PIPING EXT. PROTECTN: None PIPING LEAK DETECTN: Exempt Suction Piping PIPE SEC. CONTAINMNT: None  
 PIPING TYPE: Steel/Carbon Steel/Iron PIPING LOCATION: No Piping  
 OVERFILL PROTECTION: Product Level Gauge (A/G) SPILL PREVENTION: None DISPENSER METHOD: Suction

**Map Identification Number 308** **101 WEST 80TH OWNERS CORP** **Facility Id: 2-606646** **Source: NYS DEC**  
 101 WEST 80TH STREET NEW YORK, 10024 TT-Id: 640A-0032-083

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 146 feet to the NNW\*

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: ELISEO PEREZ Operator Phone #: (646) 957-7630  
 Owner Name: - Owner Type: Corporate or Commercial  
 Owner Company: 101 W. 80TH OWNERS CORP. C/O MIDBORO MGMT  
 Owner Address: 148 W 37TH ST, 8TH FL, NEW YORK, NY 10018

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #4 Fuel Oil  | 3000             | Aboveground on Crib Rack or Cradle | 08/26/1980   |           |            |

The following tank 001 content has been deleted or replaced: #2 Fuel Oil

TANK NUMBER: 001 TANK TYPE: Steel/Carbon Steel/Iron TK INT. PROTECTION: None  
 TANK EXT. PROTECTION: Painted/Asphalt Coating TANK LEAK DETECTN: None TK SEC. CONTAINMNT: Other  
 PIPING EXT. PROTECTN: Wrapped PIPING LEAK DETECTN: Exempt Suction Piping PIPE SEC. CONTAINMNT: Vault (w/access)  
 PIPING TYPE: Steel/Carbon Steel/Iron PIPING LOCATION: Aboveground DISPENSER METHOD: Suction  
 OVERFILL PROTECTION: None SPILL PREVENTION: Catch Basin

**Map Identification Number 309** **101 W 80 OWNERS CORP** **Facility Id: NY00039** **Source: NYC FIRE DEPT**  
 101 W 80 ST NEW YORK, NY 10024 TT-Id: 660A-0005-795

MAP LOCATION INFORMATION ADDRESS CHANGE INFORMATION  
 Site location mapped by: PARCEL MAPPING (1) Revised street: 101 W 80TH ST  
 Approximate distance from property: 146 feet to the NNW\* Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: FUEL OIL #4-3,000 GAL.TANK

**Map Identification Number 310** **JOBEN REALTY ASSOC** **Facility Id: 2-271284** **Source: NYS DEC**  
 101 W. 78TH ST NEW YORK, 10024 TT-Id: 640A-0031-026

MAP LOCATION INFORMATION ADDRESS CHANGE INFORMATION  
 Site location mapped by: PARCEL MAPPING (1) Revised street: NO CHANGE  
 Approximate distance from property: 149 feet to the WSW\* Revised zip code: NO CHANGE

Operator Name: MIREK POLAK Operator Phone #: (212) 877-8264  
 Owner Name: LAWRENCE H. PERLE - MANAGING AGENT Owner Type: Private Resident  
 Owner Company: JOBEN REALTY ASSOC  
 Owner Address: 250 W. 57TH ST SUITE 1018, NEW YORK, NY 10107

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #4 Fuel Oil  | 5000             | Aboveground - In Contact with Soil | 12/01/1958   |           |            |

TANK NUMBER: 001 TANK TYPE: Steel/Carbon Steel/Iron TK INT. PROTECTION: None  
 \*\*\*\* TANK INFO FOR THIS SITE CONTINUES ON NEXT PAGE \*\*\*\*

TANK EXT. PROTECTION: None  
 PIPING EXT. PROTECTN: None  
 PIPING TYPE: Steel/Carbon Steel/Iron  
 OVERFILL PROTECTION: Product Level Gauge (A/G)

TANK LEAK DETECTN: None  
 PIPING LEAK DETECTN: Exempt Suction Piping  
 PIPING LOCATION: No Piping  
 SPILL PREVENTION: None

TK SEC. CONTAINMNT: Vault (w/o access)  
 PIPE SEC. CONTAINMNT: None  
 DISPENSER METHOD: Suction

**Map Identification Number 311** **102 WEST ASSOCIATES** **Facility Id: 2-210870** **Source: NYS DEC**  
 102 WEST 79 STREET NEW YORK, 10024 TT-Id: 640A-0032-304

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 151 feet to the W\*

ADDRESS CHANGE INFORMATION  
 Revised street: 102 W 79TH ST  
 Revised zip code: NO CHANGE

Operator Name: AGUSTO PAULINO Operator Phone #: (212) 595-0602  
 Owner Name: -  
 Owner Company: J H TAYLOR MANAGEMENT CO Owner Type: Corporate or Commercial  
 Owner Address: 180 CABRINI BOULEVARD, NEW YORK, NY 10033

| TANK NUMBER | TANK STATUS       | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                   | INSTALL DATE | TEST DATE  | CLOSE DATE |
|-------------|-------------------|--------------|------------------|---------------------------------|--------------|------------|------------|
| 001         | Closed - In Place | #2 Fuel Oil  | 2000             | Underground Vaulted with Access |              | 07/01/1999 | 12/01/1999 |

TANK NUMBER: 001  
 TANK EXT. PROTECTION: None  
 PIPING EXT. PROTECTN: None  
 PIPING TYPE: Galvanized Steel  
 OVERFILL PROTECTION: Product Level Gauge (A/G)

TANK TYPE: Steel/Carbon Steel/Iron  
 TANK LEAK DETECTN: None  
 PIPING LEAK DETECTN: None  
 PIPING LOCATION: No Piping  
 SPILL PREVENTION:

TK INT. PROTECTION: None  
 TK SEC. CONTAINMNT: None  
 PIPE SEC. CONTAINMNT:  
 DISPENSER METHOD: Suction

**Map Identification Number 312** **370 COLUMBUS REALTY LLC** **Facility Id: 2-098094** **Source: NYS DEC**  
 370 COLUMBUS AVE NEW YORK, 10024 TT-Id: 640A-0030-404

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 152 feet to the WSW\*

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: WALLY ACEVEDO Operator Phone #: (212) 279-9600  
 Owner Name: ERIC NELSON - MEMBER MANAGER  
 Owner Company: 370 COLUMBUS REALTY LLC @ VINTAGE GROUP LLC Owner Type: Corporate or Commercial  
 Owner Address: 15 W. 39TH ST., 8TH FLOOR, NEW YORK, NY 10018

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #6 Fuel Oil  | 3000             | Aboveground – In Contact with Soil | 05/01/1945   |           |            |

TANK NUMBER: 001  
 TANK EXT. PROTECTION: None  
 PIPING EXT. PROTECTN: None  
 PIPING TYPE: Steel/Carbon Steel/Iron  
 OVERFILL PROTECTION: Product Level Gauge (A/G)

TANK TYPE: Steel/Carbon Steel/Iron  
 TANK LEAK DETECTN: None  
 PIPING LEAK DETECTN: Exempt Suction Piping  
 PIPING LOCATION: No Piping  
 SPILL PREVENTION: None

TK INT. PROTECTION: None  
 TK SEC. CONTAINMNT: None  
 PIPE SEC. CONTAINMNT: None  
 DISPENSER METHOD: Suction

**Map Identification Number 313** **THE PARK BELVEDERE CONDOMINIUM** **Facility Id: 2-272779** **Source: NYS DEC**  
 101 WEST 79TH STREET NEW YORK, 10024 TT-Id: 640A-0029-654

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 157 feet to the NW\*

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: HENRY PIKULAK Operator Phone #: (212) 877-1490  
 Owner Name: PETER T. MURRAY – MANAGING AGENT  
 Owner Company: THE PARK BELVEDERE CONDOMINIUM Owner Type: Private Resident  
 Owner Address: 101 WEST 79TH ST, NEW YORK, NY 10024

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                   | INSTALL DATE | TEST DATE  | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------------------------|--------------|------------|------------|
| 001         | In Service  | #6 Fuel Oil  | 20000            | Underground Vaulted with Access | 12/01/1983   | 04/01/1992 |            |

TANK NUMBER: 001  
 TANK EXT. PROTECTION: Painted/Asphalt Coating  
 PIPING EXT. PROTECTN: Painted/Asphalt Coating  
 PIPING TYPE: Steel/Carbon Steel/Iron  
 OVERFILL PROTECTION: High Level Alarm

TANK TYPE: Steel/Carbon Steel/Iron  
 TANK LEAK DETECTN: None  
 PIPING LEAK DETECTN: Exempt Suction Piping  
 PIPING LOCATION: Aboveground  
 SPILL PREVENTION: None

TK INT. PROTECTION: None  
 TK SEC. CONTAINMNT: Vault (w/o access)  
 PIPE SEC. CONTAINMNT: None  
 DISPENSER METHOD: Suction

**Map Identification Number 314** **THE EXCELSIOR HOTEL** **Facility Id: 2-607150** **Source: NYS DEC**  
 45 WEST 81 STREET NEW YORK, 10024 TT-Id: 640A-0032-704

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 162 feet to the NE\*

ADDRESS CHANGE INFORMATION  
 Revised street: 45 WEST 81ST STREET  
 Revised zip code: NO CHANGE

Operator Name: IVAN WEINER  
 Owner Name: IVAN WEINER – G.M.  
 Owner Company: HARRY KRAKOWSKI  
 Owner Address: 45 WEST 81 STREET, NEW YORK, NY 10024

Operator Phone #: (212) 362-9200  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                   | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------------------------|--------------|-----------|------------|
| 001         | In Service  | #6 Fuel Oil  | 6000             | Underground Vaulted with Access | 06/15/1982   |           |            |

TANK NUMBER: 001  
 TANK EXT. PROTECTION: None  
 PIPING EXT. PROTECTN: None  
 PIPING TYPE: No Piping  
 OVERFILL PROTECTION: None

TANK TYPE: Steel/Carbon Steel/Iron  
 TANK LEAK DETECTN: None  
 PIPING LEAK DETECTN: None  
 PIPING LOCATION: No Piping  
 SPILL PREVENTION:

TK INT. PROTECTION: None  
 TK SEC. CONTAINMNT: None  
 PIPE SEC. CONTAINMNT:  
 DISPENSER METHOD:

**Map Identification Number 315** **51 WEST 81ST CORP.**  
 51 WEST 81ST ST

**Facility Id: 2-243531** **Source: NYS DEC**  
 NEW YORK, 10024 TT-Id: 640A-0030-871

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 165 feet to the NNE\*

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: PATRICK CLARKE  
 Owner Name: FAITH BRENNER – PROPERTY MANAGER  
 Owner Company: 51 WEST 81ST CORP  
 Owner Address: 51 WEST 81ST STREET, NEW YORK, NY 10024

Operator Phone #: (212) 595-0446  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #2 Fuel Oil  | 5000             | Aboveground – In Contact with Soil | 01/01/1905   |           |            |

TANK NUMBER: 001  
 TANK EXT. PROTECTION: None  
 PIPING EXT. PROTECTN: None  
 PIPING TYPE: Steel/Carbon Steel/Iron  
 OVERFILL PROTECTION: Product Level Gauge (A/G)

TANK TYPE: Steel/Carbon Steel/Iron  
 TANK LEAK DETECTN: None  
 PIPING LEAK DETECTN: Exempt Suction Piping  
 PIPING LOCATION: No Piping  
 SPILL PREVENTION:

TK INT. PROTECTION: None  
 TK SEC. CONTAINMNT: Vault (w/o access)  
 PIPE SEC. CONTAINMNT:  
 DISPENSER METHOD: Suction

**Map Identification Number 316** **PARK 44 CORP**  
 44 WEST 77TH STREET

NEW YORK, 10024

**Facility Id: 2-245224**

**Source: NYS DEC**  
 TT-Id: 640A-0032-350

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 169 feet to the SSW\*

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: ANTHONY KIERNAN  
 Owner Name: -  
 Owner Company: PARK 44 CORP C/O SOLSTICE RESIDENTIAL  
 Owner Address: 257 PARK AVE SOUTH, NEW YORK, NY 10010

Operator Phone #: (212) 787-3699  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                   | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------------------------|--------------|-----------|------------|
| 001         | In Service  | #6 Fuel Oil  | 7500             | Underground Vaulted with Access | 07/11/1973   |           |            |

TANK NUMBER: 001  
 TANK EXT. PROTECTION: Painted/Asphalt Coating  
 PIPING EXT. PROTECTN: Wrapped  
 PIPING TYPE: Steel/Carbon Steel/Iron  
 OVERFILL PROTECTION: Product Level Gauge (A/G)

TANK TYPE: Steel/Carbon Steel/Iron  
 TANK LEAK DETECTN: None  
 PIPING LEAK DETECTN: Exempt Suction Piping  
 PIPING LOCATION: Aboveground  
 SPILL PREVENTION: None

TK INT. PROTECTION: None  
 TK SEC. CONTAINMNT: Vault (w/o access)  
 PIPE SEC. CONTAINMNT: None  
 DISPENSER METHOD: Suction

**Map Identification Number 317** **THE MUSEUM 77 CONDOMINIUM**  
 105 WEST 77TH STREET

NEW YORK, 10024

**Facility Id: 2-610232**

**Source: NYS DEC**  
 TT-Id: 640A-0029-747

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 184 feet to the SW\*

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: TONY GJAKMANI  
 Owner Name: -  
 Owner Company: THE MUSEUM 77 CONDOMINIUM @ VERITAS MGT LLC  
 Owner Address: 1995 BROADWA, STE 1201, NEW YORK, NY 10023

Operator Phone #: (646) 549-8943  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #2 Fuel Oil  | 1500             | Aboveground - In Contact with Soil | 01/01/1988   |           |            |

TANK NUMBER: 001  
 TANK EXT. PROTECTION: Jacketed  
 PIPING EXT. PROTECTN: None  
 PIPING TYPE: Steel/Carbon Steel/Iron

TANK TYPE: Steel/Carbon Steel/Iron  
 TANK LEAK DETECTN: None  
 PIPING LEAK DETECTN: None  
 PIPING LOCATION: Aboveground

TK INT. PROTECTION: None  
 TK SEC. CONTAINMNT: None  
 PIPE SEC. CONTAINMNT: None

\*\*\*\* TANK INFO FOR THIS SITE CONTINUES ON NEXT PAGE \*\*\*\*

OVERFILL PROTECTION: Vent Whistle

SPILL PREVENTION: None

DISPENSER METHOD:

**Map Identification Number 318** **81ST DWELLERS**  
 35 WEST 81ST ST

NEW YORK, 10024 **Facility Id: 2-063673** **Source: NYS DEC**  
 TT-Id: 640A-0030-288

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 185 feet to the NE\*

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: STEPHEN MURPHY  
 Owner Name: MITCHELL BERG – ASSISTANT SECRETARY  
 Owner Company: 81ST DWELLERS INC.  
 Owner Address: 35 WEST 81ST STREET, NEW YORK, NY 10024

Operator Phone #: (212) 595-2160  
 Owner Type: Private Resident

| TANK NUMBER | TANK STATUS      | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | Closed – Removed | #6 Fuel Oil  | 7500             | Aboveground on Crib Rack or Cradle |              |           | 04/02/2014 |

TANK NUMBER: 001  
 TANK EXT. PROTECTION: None  
 PIPING EXT. PROTECTN: None  
 PIPING TYPE: Galvanized Steel  
 OVERFILL PROTECTION: Vent Whistle

TANK TYPE: Steel/Carbon Steel/Iron  
 TANK LEAK DETECTN: None  
 PIPING LEAK DETECTN: Exempt Suction Piping  
 PIPING LOCATION: Aboveground  
 SPILL PREVENTION:

TK INT. PROTECTION: None  
 TK SEC. CONTAINMNT: None  
 PIPE SEC. CONTAINMNT:  
 DISPENSER METHOD: Gravity

**Map Identification Number 319** **102 WEST 80TH ST**  
 102 WEST 80TH ST

NEW YORK, 10024 **Facility Id: 2-338796** **Source: NYS DEC**  
 TT-Id: 640A-0031-377

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 192 feet to the NW\*

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: HAMDO  
 Owner Name: RAMIN SHALOM – MANAGER  
 Owner Company: MUSEUM PLAZA ASSOC  
 Owner Address: 347 FIFTH AVE., #1600, NEW YORK, NY 10016

Operator Phone #: (212) 721-9488  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #4 Fuel Oil  | 4000             | Aboveground on Crib Rack or Cradle | 01/01/1960   |           |            |

TANK NUMBER: 001  
 TANK TYPE: Steel/Carbon Steel/Iron  
 TK INT. PROTECTION: None

\*\*\*\* TANK INFO FOR THIS SITE CONTINUES ON NEXT PAGE \*\*\*\*

|                                               |                              |                                          |
|-----------------------------------------------|------------------------------|------------------------------------------|
| TANK EXT. PROTECTION: Painted/Asphalt Coating | TANK LEAK DETECTN: None      | TK SEC. CONTAINMNT: Diking (Aboveground) |
| PIPING EXT. PROTECTN: None                    | PIPING LEAK DETECTN: None    | PIPE SEC. CONTAINMNT: None               |
| PIPING TYPE: Copper                           | PIPING LOCATION: Aboveground | DISPENSER METHOD: Gravity                |
| OVERFILL PROTECTION: Vent Whistle             | SPILL PREVENTION: None       |                                          |

**Map Identification Number 320**      **WEST 80 ST ASSOCIATES**      **Facility Id: NY10312**      **Source: NYC FIRE DEPT**  
      103 W 80 ST      NEW YORK, NY 10025      TT-Id: 660A-0007-854

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 212 feet to the NNW

ADDRESS CHANGE INFORMATION  
 Revised street: 103 W 80TH ST  
 Revised zip code: 10024

NOTE: This is an archived database

Comments: FUEL OIL 1500 GLS

**Map Identification Number 321**      **D L R H ASSOC**      **Facility Id: 2-108332**      **Source: NYS DEC**  
      117 WEST 79TH ST      NEW YORK, 10024      TT-Id: 640A-0030-438

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 246 feet to the NW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                                     |                                     |
|-----------------------------------------------------|-------------------------------------|
| Operator Name: DAVID BEIT-MANAGER                   | Operator Phone #: (212) 787-4900    |
| Owner Name: BLAKE AUGUSTUS -                        | Owner Type: Corporate or Commercial |
| Owner Company: D L R H ASSOCIATES LLC               |                                     |
| Owner Address: 117 WEST 79TH ST, NEW YORK, NY 10024 |                                     |

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #6 Fuel Oil  | 3000             | Aboveground - In Contact with Soil | 10/01/1985   |           |            |

|                                                |                                            |                                        |
|------------------------------------------------|--------------------------------------------|----------------------------------------|
| TANK NUMBER: 001                               | TANK TYPE: Steel/Carbon Steel/Iron         | TK INT. PROTECTION: None               |
| TANK EXT. PROTECTION: None                     | TANK LEAK DETECTN: None                    | TK SEC. CONTAINMNT: Vault (w/o access) |
| PIPING EXT. PROTECTN: None                     | PIPING LEAK DETECTN: Exempt Suction Piping | PIPE SEC. CONTAINMNT: None             |
| PIPING TYPE: Steel/Carbon Steel/Iron           | PIPING LOCATION: No Piping                 | DISPENSER METHOD: Suction              |
| OVERFILL PROTECTION: Product Level Gauge (A/G) | SPILL PREVENTION: None                     |                                        |

**Map Identification Number 322** **341 COLUMBUS REALTY CO. LLC**  
 59 WEST 76TH STREET

NEW YORK, 10023 **Facility Id: 2-316377**

**Source: NYS DEC**  
 TT-Id: 640A-0029-906

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 247 feet to the SSW

ADDRESS CHANGE INFORMATION  
 Revised street: 59 WEST 76TH ST  
 Revised zip code: NO CHANGE

Operator Name: OSCAR GARAY  
 Owner Name: -  
 Owner Company: 341 COLUMBUS REALTY CO. LLC  
 Owner Address: 616 PALISADE AVE, ENGLEWOOD CLIFFS, NJ 07632

Operator Phone #: (646) 234-5776  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS      | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | Closed - Removed | #2 Fuel Oil  | 3000             | Aboveground - In Contact with Soil | 12/01/1976   |           | 10/03/2013 |

TANK NUMBER: 001 TANK TYPE: Steel/Carbon Steel/Iron TK INT. PROTECTION: None  
 TANK EXT. PROTECTION: Painted/Asphalt Coating TANK LEAK DETECTN: None TK SEC. CONTAINMNT: Other  
 PIPING EXT. PROTECTN: Painted/Asphalt Coating PIPING LEAK DETECTN: Exempt Suction Piping PIPE SEC. CONTAINMNT: None  
 PIPING TYPE: Steel/Carbon Steel/Iron PIPING LOCATION: Aboveground/Underground Combination  
 OVERFILL PROTECTION: Product Level Gauge (A/G) SPILL PREVENTION: None DISPENSER METHOD: Suction

**Map Identification Number 323** **118 TENANTS CORP**  
 118 WEST 79TH STREET

NEW YORK, 10024 **Facility Id: 2-236756**

**Source: NYS DEC**  
 TT-Id: 640A-0032-334

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 247 feet to the W

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: MIGUEL SOTO  
 Owner Name: ANTHONY COLELLA - MANAGING DIR.  
 Owner Company: 118 TENANTS CORP  
 Owner Address: 118 WEST 79 ST, NEW YORK, NY 10024

Operator Phone #: (212) 873-4597  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------|--------------|-----------|------------|
| 001         | In Service  | #6 Fuel Oil  | 5000             | Underground   | 04/01/1952   |           |            |

TANK NUMBER: 001 TANK TYPE: Steel/Carbon Steel/Iron TK INT. PROTECTION: None  
 TANK EXT. PROTECTION: None TANK LEAK DETECTN: None TK SEC. CONTAINMNT: None  
 PIPING EXT. PROTECTN: None PIPING LEAK DETECTN: None PIPE SEC. CONTAINMNT: None  
 PIPING TYPE: Steel/Carbon Steel/Iron PIPING LOCATION: No Piping

\*\*\*\* TANK INFO FOR THIS SITE CONTINUES ON NEXT PAGE \*\*\*\*

OVERFILL PROTECTION: Product Level Gauge (A/G)

SPILL PREVENTION: None

DISPENSER METHOD:

**Map Identification Number 324** **25 WEST 81ST STREET LLC**  
 25 WEST 81ST STREET

NEW YORK, 10154

**Facility Id: 2-360066**

**Source: NYS DEC**  
 TT-Id: 640A-0031-451

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 258 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: 25 W 81ST ST  
 Revised zip code: 10024

Operator Name: LUKE  
 Owner Name: -  
 Owner Company: 25 WEST 81ST ST LLC @ RUDIN MGMT CO  
 Owner Address: 345 PARK AVE, NEW YORK, NY 10154

Operator Phone #: (212) 874-1356  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #4 Fuel Oil  | 5000             | Aboveground on Crib Rack or Cradle | 12/10/1958   |           |            |

The following tank 001 content has been deleted or replaced: #6 Fuel Oil

**Map Identification Number 325** **WALBER 82ND STREET ASSOCIATES**  
 80 WEST 82ND ST

NEW YORK, 10024

**Facility Id: 2-611976**

**Source: NYS DEC**  
 TT-Id: 640A-0089-573

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 259 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: RALPH DAVIS  
 Owner Name: RALPH DAVIS - MANAGING AGENT  
 Owner Company: WALBER 82ND STREET ASSOCIATES  
 Owner Address: 80 WEST 82ND ST, NEW YORK, NY 10024

Operator Phone #: (212) 307-0500  
 Owner Type:

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                          | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|----------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #2 Fuel Oil  | 1200             | Aboveground - 10% or More Below Ground | 06/01/1948   |           |            |

**Map Identification Number 326** **4077 OWNERS CORP**  
 40 WEST 77 ST

NEW YORK, 10024 **Facility Id: 2-112283**

**Source: NYS DEC**  
 TT-Id: 640A-0032-219

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 262 feet to the S

ADDRESS CHANGE INFORMATION  
 Revised street: 40 WEST 77TH ST  
 Revised zip code: NO CHANGE

Operator Name: DECIAN BEACKEN  
 Owner Name: HARRY SMOTH – AGENT  
 Owner Company: 4077 OWNERS CORP  
 Owner Address: 40 WEST 77TH ST, NEW YORK, NY 10024

Operator Phone #: (212) 874-7922  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                   | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------------------------|--------------|-----------|------------|
| 001         | In Service  | #6 Fuel Oil  | 5000             | Underground Vaulted with Access | 01/01/1989   |           |            |

**Map Identification Number 327** **ENDICOTT COMMERCIAL UNIT**  
 440 COLUMBUS AVENUE

NEW YORK, 10024 **Facility Id: 2-211583**

**Source: NYS DEC**  
 TT-Id: 640A-0039-410

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 288 feet to the N

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: WALKER MALLOY & CO  
 Owner Name: JAMES REID – MANAGING AGENT  
 Owner Company: ROBERT C. QUINLAN ET AL  
 Owner Address: 101 WEST 70TH STREET, SUITE 2N, NEW YORK, NY 10023

Operator Phone #: (212) 362-5108  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #2 Fuel Oil  | 1250             | Aboveground on Crib Rack or Cradle | 12/01/1981   |           |            |
| 002         | In Service  | #2 Fuel Oil  | 1250             | Aboveground on Crib Rack or Cradle | 12/01/1981   |           |            |

**Map Identification Number 328** **ENDICOTT APARTMENT CORP.**  
 101 WEST 81ST STREET

NEW YORK, 10024 **Facility Id: 2-249092**

**Source: NYS DEC**  
 TT-Id: 640A-0039-411

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 288 feet to the N

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: VINCENT CONIGULIARO  
 Owner Name: ALAN WARSHANSKY – MANAGING AGENT  
 Owner Company: ENDICOTT APARTMENT CORP @ HALSTEAD MGMT CO LLC  
 Owner Address: 415 MADISON AVE., NEW YORK, NY 10021

Operator Phone #: (212) 362-5108  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS      | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | Closed – Removed | #2 Fuel Oil  | 5000             | Aboveground – In Contact with Soil |              |           | 10/21/2006 |
| 002         | In Service       | #4 Fuel Oil  | 5000             | Aboveground on Crib Rack or Cradle | 09/01/2006   |           |            |

**Map Identification Number 329** **INTERMEDIATE SCHOOL 44 – MANHATTAN M044** **Facility Id: 2-353876** **Source: NYS DEC**  
 100 WEST 77TH STREET NEW YORK, 10024 TT-Id: 640A-0031-430

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 304 feet to the SW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: PLANT OPERATIONS  
 Owner Name: –  
 Owner Company: NEW YORK CITY DEPARTMENT OF EDUCATION  
 Owner Address: 44-36 VERNON BOULEVARD, LONG ISLAND CITY, NY 11101

Operator Phone #: (718) 349-5400  
 Owner Type: Local Government

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #2 Fuel Oil  | 10000            | Aboveground on Crib Rack or Cradle | 01/01/1957   |           |            |
| 002         | In Service  | #2 Fuel Oil  | 10000            | Aboveground on Crib Rack or Cradle | 01/01/1957   |           |            |

**Map Identification Number 330** **3282 OWNERS CORP.** **Facility Id: 2-266590** **Source: NYS DEC**  
 32 WEST 82ND STREET NEW YORK, 10024 TT-Id: 640A-0032-386

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 342 feet to the NE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: MARINO BRITO  
 Owner Name: VIRGINIA CONTI – ACCOUNT EXECUTIVE  
 Owner Company: 3282 OWNERS CORP  
 Owner Address: 32 W. 82ND ST., NEW YORK, NY 10024

Operator Phone #: (212) 724-6068  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #6 Fuel Oil  | 5000             | Aboveground – In Contact with Soil | 06/01/1949   |           |            |

**Map Identification Number 331**  **ENNISMORE APARTMENTS INC** **Facility Id: 2-272930** **Source: NYS DEC**  
 124 WEST 79TH STREET NEW YORK, 10024 TT-Id: 640A-0031-041

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 347 feet to the W

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: ENNISMORE APARTMENTS INC Operator Phone #: (212) 873-4919  
 Owner Name: ARI PAUL – MANAGING AGENT Owner Type: Corporate or Commercial  
 Owner Company: ENNISMORE APARTMENTS INC  
 Owner Address: 155 RIVERSIDE DRIVE, NEW YORK NY, NY 10024

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #6 Fuel Oil  | 7500             | Aboveground – In Contact with Soil | 01/01/1940   |           |            |

**Map Identification Number 332**  **22 WEST 77TH STREET** **Facility Id: 2-420999** **Source: NYS DEC**  
 22 WEST 77TH STREET NEW YORK, 10024 TT-Id: 640A-0031-588

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 357 feet to the S

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: GERARDO SOLIS Operator Phone #: (347) 387-2501  
 Owner Name: FRANCISCO ORELLANA – MGR Owner Type: Corporate or Commercial  
 Owner Company: 77TH STREET REALTY ASSOC. LP  
 Owner Address: 43 WEST 75TH STREET STE C, NEW YORK, NY 10023

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                          | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|----------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #2 Fuel Oil  | 4000             | Aboveground – 10% or More Below Ground | 08/18/1983   |           |            |

**Map Identification Number 333** **ALEIDA REALTY CRP**  
 73 W 82 ST

**Facility Id: NY01319**  
 NEW YORK, NY 10024

**Source: NYC FIRE DEPT**  
 TT-Id: 660A-0006-052

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 381 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: 73 W 82ND ST  
 Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: FUEL OIL 1500G -#2

**Map Identification Number 334** **15 W 81ST ST TENANTS CORP**  
 15 W 81ST ST

**Facility Id: 2-233471**  
 NEW YORK, 10024

**Source: NYS DEC**  
 TT-Id: 640A-0030-815

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 394 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: LOUIS MARTIN  
 Owner Name: PATRICIA PETTAWAY-BROWN - COMPLIANCE MGR  
 Owner Company: 15 W 81ST ST TENANTS CORP  
 Owner Address: 15 W 81ST ST, NEW YORK, NY 10024

Operator Phone #: (212) 787-3007  
 Owner Type: Corporate or Commercial

| TANK NUMBER                                                              | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|--------------------------------------------------------------------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001                                                                      | In Service  | #2 Fuel Oil  | 10000            | Aboveground - In Contact with Soil | 01/02/1981   |           |            |
| The following tank 001 content has been deleted or replaced: #6 Fuel Oil |             |              |                  |                                    |              |           |            |

**Map Identification Number 335** **60 WEST 76TH STREET**  
 60 WEST 76TH STREET

**Facility Id: 2-315842**  
 NEW YORK, 10023

**Source: NYS DEC**  
 TT-Id: 640A-0031-251

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 394 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: EDDIE LAMAJ  
 Owner Name: JOSEPH LOPEZ - MANAGING AGENT  
 Owner Company: 60 WEST 76TH STREET LLC  
 Owner Address: 600 MADISON AVE, 14TH FLOOR, NEW YORK, NY 10022

Operator Phone #: (212) 501-9373  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #6 Fuel Oil  | 4500             | Aboveground – In Contact with Soil | 04/30/1968   |           |            |

**Map Identification Number 336**  **CLIFTON HOUSE OWNERS CORP.** **Facility Id: 2-244600** **Source: NYS DEC**  
 127 WEST 79TH STREET NEW YORK, 10024 TT-Id: 640A-0030-878

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 400 feet to the NW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: SAMMY PEREZ  
 Owner Name: MICHAELE MCCARTHY – ACCT EXECUTIVE  
 Owner Company: CLIFTON HOUSE OWNERS CORP.  
 Owner Address: 127 WEST 79TH ST, NEW YORK, NY 10024

Operator Phone #: (212) 362-7500  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS       | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE  | CLOSE DATE |
|-------------|-------------------|--------------|------------------|------------------------------------|--------------|------------|------------|
| 001         | Closed – In Place | #6 Fuel Oil  | 7000             | Underground                        | 10/01/1926   | 11/11/2009 | 02/01/2013 |
| 002         | In Service        | #2 Fuel Oil  | 3500             | Aboveground on Crib Rack or Cradle | 02/22/2013   |            |            |

**Map Identification Number 337**  **20 W 77 ST** **Facility Id: 2-064726** **Source: NYS DEC**  
 20 WEST 77TH STREET NEW YORK, 10024 TT-Id: 640A-0030-295

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 409 feet to the S

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: JOSEPH BUHAGIAR  
 Owner Name: ANTHONY COLELLA – MANAGING DIRECTOR  
 Owner Company: 20 WEST 77TH STREET CORP  
 Owner Address: 250 PARK AVE SOUTH, NEW YORK, NY 10003

Operator Phone #: (212) 496-0131  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #4 Fuel Oil  | 3000             | Aboveground – In Contact with Soil | 01/01/1952   |           |            |

The following tank 001 content has been deleted or replaced: #6 Fuel Oil

**Map Identification Number 338** **20TH PCT**  
 120 WEST 82ND STREET

NEW YORK, 10020

**Facility Id: 2-217484**

**Source: NYS DEC**  
 TT-Id: 640A-0039-448

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 410 feet to the N

**ADDRESS CHANGE INFORMATION**

Revised street: 120 W 82ND ST  
 Revised zip code: 10024

Operator Name: N Y C P D  
 Owner Name: BRENDAN MORAN – SERGEANT  
 Owner Company: N Y C P D/ASD  
 Owner Address: 1 POLICE PLAZA, ROOM 800, NEW YORK, NY 10038

Operator Phone #: (212) 580-6411  
 Owner Type: Local Government

| TANK NUMBER | TANK STATUS       | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE  | CLOSE DATE |
|-------------|-------------------|--------------|------------------|------------------------------------|--------------|------------|------------|
| 001         | Closed – Removed  | Gasoline     | 550              | Underground                        | 01/01/1969   |            | 01/01/1996 |
| 002         | Closed – Removed  | Gasoline     | 550              | Underground                        | 01/01/1969   |            | 01/01/1996 |
| 003         | Closed – Removed  | Gasoline     | 550              | Underground                        | 01/01/1969   |            | 01/01/1996 |
| 004         | Closed – Removed  | Gasoline     | 550              | Underground                        | 01/01/1969   |            | 01/01/1996 |
| 005         | Closed – In Place | #2 Fuel Oil  | 8000             | Underground                        | 07/01/1967   | 03/01/2001 | 12/01/2002 |
| 006         | Closed – Removed  | Diesel       | 1000             | Underground                        | 12/01/1969   |            | 12/01/2002 |
| 007         | In Service        | Gasoline     | 4000             | Underground                        | 01/01/1996   |            |            |
| 008         | In Service        | #2 Fuel Oil  | 7500             | Underground                        | 12/01/2002   |            |            |
| 009         | In Service        | #2 Fuel Oil  | 25               | Aboveground on Crib Rack or Cradle | 12/01/2002   |            |            |

**Map Identification Number 339** **100 WEST 76TH STREET**  
 100 WEST 76TH STREET

NEW YORK, 10023

**Facility Id: 2-286192**

**Source: NYS DEC**  
 TT-Id: 640A-0031-142

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 423 feet to the SW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: JONATHAN HINCAPIE  
 Owner Name: ANNE GOLDRACH – PRESIDENT  
 Owner Company: GREYSTONE PROPERTIES 76 LLC  
 Owner Address: 30 VESEY STREET, SUITE 1700, NEW YORK, NY 10007

Operator Phone #: (917) 698-3397  
 Owner Type: Private Resident

| TANK NUMBER | TANK STATUS      | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | Closed – Removed | #2 Fuel Oil  | 4000             | Aboveground – In Contact with Soil |              |           | 07/01/1991 |
| 002         | In Service       | #2 Fuel Oil  | 2500             | Aboveground on Crib Rack or Cradle | 07/01/1991   |           |            |

**Map Identification Number 340** **HAYDEN OWNERS CORP**  
 11 WEST 81ST STREET

NEW YORK, 10024 **Facility Id: 2-147311**

**Source: NYS DEC**  
 TT-Id: 640A-0030-529

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 429 feet to the ENE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: SHOUKAT MIAN  
 Owner Name: MICHAEL J. WOLFE – ACCOUNT EXECUTIVE  
 Owner Company: HAYDEN OWNERS CORP @ MIDBORO MGMT INC  
 Owner Address: 148 W. 37TH ST., NEW YORK, NY 10018

Operator Phone #: (212) 873-5238  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE  | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------|--------------|------------|------------|
| 001         | In Service  | #6 Fuel Oil  | 4000             | Underground   | 05/01/1998   | 04/16/2014 |            |

**Map Identification Number 341** **4182 TENANTS CORP**  
 41 WEST 82ND STREET

NEW YORK, 10024 **Facility Id: 2-311502**

**Source: NYS DEC**  
 TT-Id: 640A-0031-233

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 434 feet to the NE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: NEIL FERGUSON  
 Owner Name: -  
 Owner Company: 4182 TENANTS CORP @ MIDBORO MGMT  
 Owner Address: 148 W 37TH ST., 8TH FLOOR, NEW YORK, NY 10024

Operator Phone #: (212) 721-2388  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                            | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #4 Fuel Oil  | 5000             | Abovegrnd – In Contact w/Imperv. Barrier | 06/01/1946   |           |            |

**Map Identification Number 342** **RESIDENTIAL APARTMENT BUILDING**  
 35 WEST 82ND STREET

NEW YORK, 10024 **Facility Id: 2-043877**

**Source: NYS DEC**  
 TT-Id: 640A-0030-235

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 441 feet to the NE

ADDRESS CHANGE INFORMATION  
 Revised street: 35 WEST 82ND ST  
 Revised zip code: NO CHANGE

Operator Name: WILLIAM QUINN  
 Owner Name: JOHN MASINI – AGENT  
 Owner Company: 35 WEST 82 ST INC @ THE ARGO CORP  
 Owner Address: 50 WEST 17TH ST, NEW YORK, NY 10011

Operator Phone #: (212) 874–3489  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS      | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 052         | Closed – Removed | #6 Fuel Oil  | 5000             | Aboveground – In Contact with Soil | 11/15/1978   |           | 05/07/2014 |
| 053         | In Service       | #2 Fuel Oil  | 2600             | Aboveground on Crib Rack or Cradle | 12/23/2015   |           |            |

**Map Identification Number 343** **125 W 76 ST**  
 125 WEST 76TH STREET

**Facility Id: 2–129992** **Source: NYS DEC**  
 NEW YORK, 10023 TT-Id: 640A–0032–236

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 447 feet to the WSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: TOM CREAM  
 Owner Name: PHILLIP SANSONE – AGENT  
 Owner Company: 125 W 76 RLTY CORP  
 Owner Address: 125 W 76 ST, NEW YORK, NY 10023

Operator Phone #: (646) 329–5156  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #6 Fuel Oil  | 3000             | Aboveground – In Contact with Soil | 03/07/1922   |           |            |

**Map Identification Number 344** **79TH ST. RESIDENCE CORP.**  
 135 WEST 79TH STREET

**Facility Id: 2–332240** **Source: NYS DEC**  
 NEW YORK, 10024 TT-Id: 640A–0031–344

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 480 feet to the WNW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: TONY ROSARIO  
 Owner Name: MICHAEL SCHENKER – PROPERTY MANAGER  
 Owner Company: 79TH ST RESIDENCE CORP @ ANDREWS BLDG CORP  
 Owner Address: 666 BROADWAY, 12TH FL, NEW YORK, NY 10012

Operator Phone #: (212) 874–3284  
 Owner Type: Corporate or Commercial

| TANK NUMBER                                                              | TANK STATUS      | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|--------------------------------------------------------------------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001                                                                      | Closed – Removed | #2 Fuel Oil  | 3000             | Aboveground – In Contact with Soil | 09/19/1995   |           | 08/06/2010 |
| The following tank 001 content has been deleted or replaced: #6 Fuel Oil |                  |              |                  |                                    |              |           |            |

**Map Identification Number 345**  **57 WEST 75TH ST** **Facility Id: 2-297852** **Source: NYS DEC**  
 57 WEST 75TH ST NEW YORK, 10023 TT-Id: 640A-0031-211

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 499 feet to the SSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: MIKE MINIHAN  
 Owner Name: NOEL INTNER – AUTHORIZED SIGNATORY  
 Owner Company: LA ROCHELLE 75I, LLC  
 Owner Address: 500 FIFTH AVENUE, SUITE 1600, NEW YORK, NY 10110

Operator Phone #: (917) 217-5362  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #6 Fuel Oil  | 5000             | Aboveground – In Contact with Soil | 03/01/2006   |           |            |

**Map Identification Number 346**  **6-16 WEST 77 STREET** **Facility Id: 2-064696** **Source: NYS DEC**  
 6 WEST 77TH ST NEW YORK, 10024 TT-Id: 640A-0030-294

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 500 feet to the S

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: VLADA STEFANOVICH  
 Owner Name: PATRICIA PETTAWAY-BROWN – COMPLIANCE  
 Owner Company: 6-16 W 77 ST CORP  
 Owner Address: 6-16 WEST 77 STREET, NEW YORK, NY 10036

Operator Phone #: (212) 362-1617  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                   | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------------------------|--------------|-----------|------------|
| 001         | In Service  | #6 Fuel Oil  | 10000            | Underground Vaulted with Access | 05/15/1924   |           |            |
| 002         | In Service  | #2 Fuel Oil  | 2000             | Underground Vaulted with Access | 05/15/1954   |           |            |

**Map Identification Number 347** **WEST 82ND OWNERS CORPORATION**  
 107-111 WEST 82ND STREET

**Facility Id: 2-603532**  
 NEW YORK, 10024

**Source: NYS DEC**  
 TT-Id: 640A-0039-409

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 503 feet to the N

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: JEFFERSON VICENTE  
 Owner Name: WHITNEY COLBURN – MANAGEMENT SUPERVISOR  
 Owner Company: WEST 82ND OWNERS CORP. C/O MARIN MGT.  
 Owner Address: 157 EAST 25TH ST, NEW YORK, NY 10010

Operator Phone #: (212) 579-9774  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #2 Fuel Oil  | 3000             | Aboveground – In Contact with Soil | 06/30/1986   |           |            |

**Map Identification Number 348** **107-111 W.82 ST.ASSOC.**  
 109 W 82 ST

**Facility Id: NY00056**  
 NEW YORK, NY 10024

**Source: NYC FIRE DEPT**  
 TT-Id: 660A-0005-730

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 503 feet to the N

ADDRESS CHANGE INFORMATION  
 Revised street: 109 W 82ND ST  
 Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: FUEL OIL-1500 GAL.TANK  
 \*KEY AT 111 W.82 STREET/APT.#5D\*

**Map Identification Number 349** **N&R REALTY**  
 471 COLUMBUS AVENUE

**Facility Id: 2-607024**  
 NEW YORK, 10024

**Source: NYS DEC**  
 TT-Id: 640A-0032-139

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 504 feet to the NNE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: NICK ZINGONE  
 Owner Name: NICHOLAS ZINGONE – PARTNER  
 Owner Company: NICK ZINGONE  
 Owner Address: 471 COLUMBUS AVENUE, NEW YORK, NY 10024

Operator Phone #: (212) 877-7525  
 Owner Type: Private Resident

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 1           | In Service  | #2 Fuel Oil  | 2500             | Aboveground – In Contact with Soil | 01/01/1976   |           |            |

**Map Identification Number 350**  **N & R REALTY CO** **Facility Id: NY07044** **Source: NYC FIRE DEPT**  
 471 COLUMBUS AVE NEW YORK, NY 10024 TT-Id: 660A-0005-553

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 504 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: FUEL OIL #4 2000G

**Map Identification Number 351**  **APT BUILDING** **Facility Id: 2-306142** **Source: NYS DEC**  
 140 W 79TH ST NEW YORK, 10024 TT-Id: 640A-0031-221

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 511 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: JOSE CUADRO

Operator Phone #: (212) 595-0238

Owner Name: -

Owner Type: Corporate or Commercial

Owner Company: NALEA REALTY

Owner Address: 33 STEPHEN DR, ENG CLIFF, NJ 07632

| TANK NUMBER | TANK STATUS      | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | Closed – Removed | #6 Fuel Oil  | 4500             | Aboveground – In Contact with Soil | 01/09/1970   |           | 11/25/2015 |

The following tank 001 content has been deleted or replaced: Diesel

**Map Identification Number 352** **120 WEST 76TH STREET**  
 120 WEST 76TH STREET

**Facility Id: 2-608998**  
 NEW YORK, 10023

**Source: NYS DEC**  
 TT-Id: 640A-0030-020

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 530 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: DAVID OHEYON  
 Owner Name: -  
 Owner Company: WEST SIDE INSTITUTIONAL SYNAGOGUE  
 Owner Address: 120 WEST 76 ST, NEW YORK, NY 10023

Operator Phone #: (12 ) 877-7652  
 Owner Type:

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 1           | In Service  | #2 Fuel Oil  | 4000             | Aboveground - In Contact with Soil |              |           |            |

**Map Identification Number 353** **WEST SIDE INST SYNG**  
 120 W 76 ST

**Facility Id: NY10324**  
 NEW YORK, NY 10023

**Source: NYC FIRE DEPT**  
 TT-Id: 660A-0007-006

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 530 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: 120 W 76TH ST  
 Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: FUEL OIL #2 -4,000 GALS TANK  
 NO FEE

**Map Identification Number 354** **145 W. 79TH STREET OWNERS CORP.**  
 145 W. 79TH STREET

**Facility Id: 2-600842**  
 NY, 10024

**Source: NYS DEC**  
 TT-Id: 640A-0031-759

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 537 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: ED BDEEIOS  
 Owner Name: MARK HOFFMAN - MANAGER  
 Owner Company: 145 W. 79TH STREET OWNERS CORP.  
 Owner Address: 145 W. 79TH STREET, NY, NY 10024

Operator Phone #: (212) 595-6292  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 01          | In Service  | #2 Fuel Oil  | 5000             | Aboveground on Crib Rack or Cradle | 01/01/1949   |           |            |

**Map Identification Number 355**  **83RD STREET OWNERS CORP** **Facility Id: 2-311871** **Source: NYS DEC**  
 46 W 83 STREET NEW YORK, 10024 TT-Id: 640A-0032-465

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 541 feet to the NE

**ADDRESS CHANGE INFORMATION**

Revised street: 46 W 83RD STREET  
 Revised zip code: NO CHANGE

Operator Name: ATILLA ADIGUEZEL  
 Owner Name: KENNETH RYAN – PROPERTY MANAGER  
 Owner Company: 83RD STREET OWNERS CORP  
 Owner Address: 46 W 83 STREET, NEW YORK, NY 10024

Operator Phone #: (212) 362-0676  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #6 Fuel Oil  | 5000             | Aboveground – In Contact with Soil | 07/10/1965   |           |            |

**Map Identification Number 356**  **146 WEST 79 ST** **Facility Id: 2-214507** **Source: NYS DEC**  
 146 WEST 79TH STREET NEW YORK, 10024 TT-Id: 640A-0032-314

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 566 feet to the WNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: BENNY BERRIOS  
 Owner Name: BRIAN BROXMEYER – PROPERTY MANAGER  
 Owner Company: SUPREME COMPANY  
 Owner Address: 150 E 58 ST, NEW YORK, NY 10155

Operator Phone #: (212) 799-0921  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                   | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------------------------|--------------|-----------|------------|
| 001         | In Service  | #2 Fuel Oil  | 2500             | Underground Vaulted with Access | 10/06/1970   |           |            |

**Map Identification Number 357** **CHA REALTY LLC (JOSEPH CHADI)**  
 101 WEST 75 ST.

**Facility Id: 2-606629**  
 NEW YORK, 10023

**Source: NYS DEC**  
 TT-Id: 640A-0032-693

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 572 feet to the SW

ADDRESS CHANGE INFORMATION  
 Revised street: 101 WEST 75TH STREET  
 Revised zip code: NO CHANGE

Operator Name: JOSEPH CHADI  
 Owner Name: JOSEPH CHADI – OWENR  
 Owner Company: CHA REALTY LLC (JOSEPH CHADI)  
 Owner Address: 175 GREAT NECK RD STE 307, GREAT NECK, NY 11021

Operator Phone #: (631) 777-7004  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                   | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------------------------|--------------|-----------|------------|
| 001         | In Service  | #2 Fuel Oil  | 1500             | Underground Vaulted with Access | 10/10/1989   |           |            |

**Map Identification Number 358** **JOSEPH CHADI**  
 101 W 75 ST

**Facility Id: NY05520**  
 NEW YORK, NY 10023

**Source: NYC FIRE DEPT**  
 TT-Id: 660A-0006-496

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 572 feet to the SW

ADDRESS CHANGE INFORMATION  
 Revised street: 101 W 75TH ST  
 Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: FUEL OIL #4 1500G

**Map Identification Number 359** **BERESFORD APARTMENTS**  
 211 CENTRAL PARK WEST

**Facility Id: 2-113654**  
 NEW YORK, 10024

**Source: NYS DEC**  
 TT-Id: 640A-0029-608

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (2)  
 Approximate distance from property: 575 feet to the ENE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: SOLSTICE RESIDENTIAL  
 Owner Name: ALEX KALAJIAN – V.P. OF OPERATIONS  
 Owner Company: BERESFORD APARTMENTS  
 Owner Address: 211 CENTRAL PARK WEST, NEW YORK, NY 10024

Operator Phone #: (212) 787-2100  
 Owner Type: Corporate or Commercial

| TANK NUMBER                                                              | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                   | INSTALL DATE | TEST DATE | CLOSE DATE |
|--------------------------------------------------------------------------|-------------|--------------|------------------|---------------------------------|--------------|-----------|------------|
| 001                                                                      | In Service  | #2 Fuel Oil  | 20000            | Underground Vaulted with Access | 01/26/1956   |           |            |
| The following tank 001 content has been deleted or replaced: #6 Fuel Oil |             |              |                  |                                 |              |           |            |
| 002                                                                      | In Service  | #2 Fuel Oil  | 20000            | Underground Vaulted with Access | 01/26/1956   |           |            |
| The following tank 002 content has been deleted or replaced: #6 Fuel Oil |             |              |                  |                                 |              |           |            |

**Map Identification Number 360**

**147 W 79TH ST**  
147 WEST 79TH STREET



**Facility Id: 2-055549**

**Source: NYS DEC**  
TT-Id: 640A-0030-256

NEW YORK, 10024

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 598 feet to the WNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Operator Name: FITIM KUKIC  
Owner Name: -  
Owner Company: IG SECOND GENERATION PARTNERS, LP & I BLDG CO, INC  
Owner Address: 417 FIFTH AVENUE, 4TH FLOOR, NEW YORK, NY 10016

Operator Phone #: (646) 235-5188  
Owner Type: Corporate or Commercial

| TANK NUMBER                                                              | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|--------------------------------------------------------------------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 104                                                                      | In Service  | #2 Fuel Oil  | 7500             | Aboveground - In Contact with Soil | 01/01/1970   |           |            |
| The following tank 104 content has been deleted or replaced: #6 Fuel Oil |             |              |                  |                                    |              |           |            |

**Map Identification Number 361**

**FDNY ENGINE CO. 74**  
120 WEST 83RD STREET



**Facility Id: 2-357898**

**Source: NYS DEC**  
TT-Id: 640A-0039-437

NEW YORK, 10024

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 608 feet to the N

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Operator Name: COMPANY OFFICER  
Owner Name: -  
Owner Company: FIRE DEPARTMENT  
Owner Address: 9 METROTECH, BROOKLYN, NY 11201-3857

Operator Phone #: (212) 570-4274  
Owner Type: Local Government

| TANK NUMBER | TANK STATUS      | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | Closed - Removed | #2 Fuel Oil  | 2000             | Aboveground - In Contact with Soil | 12/01/1977   |           | 12/17/2007 |
| 002         | In Service       | Diesel       | 550              | Aboveground on Crib Rack or Cradle | 12/01/1966   |           |            |

\*\*\*\* TANK INFO CONTINUES ON NEXT PAGE \*\*\*\*

003      Closed – In Place                      Gasoline                                      275    Underground                                      07/01/1996

**Map Identification Number 362**      **155 WEST 81 STREET ASSOCIATES**  
 155 WEST 81 STREET

**Facility Id: 2-358495**      **Source: NYS DEC**  
 NEW YORK, 10024      TT-Id: 640A-0039-412

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 610 feet to the NNW

ADDRESS CHANGE INFORMATION  
 Revised street: 155 W 81ST ST  
 Revised zip code: NO CHANGE

Operator Name: CARLOS ARENAS  
 Owner Name: MARK EISENSTEIN – MANAGER  
 Owner Company: 155 WEST 81 STREET ASSOCIATES C/O EISENSTEIN  
 Owner Address: 244 WEST 54 STREET, NEW YORK, NY 10019

Operator Phone #: (212) 663-3594  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #6 Fuel Oil  | 5000             | Aboveground – In Contact with Soil | 06/01/1952   |           |            |

**Map Identification Number 363**      **158 WEST 81ST STREET**  
 158 WEST 81ST STREET

**Facility Id: 2-200905**      **Source: NYS DEC**  
 NEW YORK, 10024      TT-Id: 640A-0039-415

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 614 feet to the NNW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: EUGENE CAMILLERI  
 Owner Name: ANNE GOLDRACH – PRESIDENT  
 Owner Company: GREYSTONE PROPERTIES 81 LLC  
 Owner Address: 30 VESEY ST, STE 1700, NEW YORK, NY 10007

Operator Phone #: (917) 834-8966  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #4 Fuel Oil  | 3000             | Aboveground – In Contact with Soil | 01/01/1960   |           |            |

The following tank 001 content has been deleted or replaced: #6 Fuel Oil

**Map Identification Number 364** **14-16 WEST 76TH ST., LLC**  
 14-16 WEST 76TH STREET

**Facility Id: 2-607938**  
 NEW YORK, 10023

**Source: NYS DEC**  
 TT-Id: 640A-0038-724

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (2)  
 Approximate distance from property: 617 feet to the S

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: MARBROSE REALTY INC  
 Owner Name: -  
 Owner Company: 14-16 WEST 76TH STR.LLC C/O MARBROSE REALTY  
 Owner Address: 43 W. 75TH STREET, NEW YORK, NY 10023

Operator Phone #: (212) 769-3706

Owner Type: Private Resident

| TANK NUMBER | TANK STATUS      | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | Closed - Removed | Empty        | 2500             | Aboveground - In Contact with Soil |              |           | 04/24/2002 |

**Map Identification Number 365** **CENTRAL PARK REALTY**  
 14 W 76 ST

**Facility Id: NY02492**  
 NEW YORK, NY 10023

**Source: NYC FIRE DEPT**  
 TT-Id: 660A-0006-156

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 623 feet to the S

**ADDRESS CHANGE INFORMATION**

Revised street: 14 W 76TH ST  
 Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: FUEL OIL#2-2000 GAL.TANK

**Map Identification Number 366** **150 WEST 79 CORP**  
 150 WEST 79TH STREET

**Facility Id: 2-281808**  
 NEW YORK, 10024

**Source: NYS DEC**  
 TT-Id: 640A-0031-100

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 625 feet to the WNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: JULIO RIVERA JR.  
 Owner Name: ANTHONY COLELLA - MANAGING DIRECTOR  
 Owner Company: 150 WEST 79 CORP  
 Owner Address: 250 PARK AVENUE SOUTH, NEW YORK, NY 10003-1402

Operator Phone #: (212) 787-2389

Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #6 Fuel Oil  | 6000             | Aboveground – In Contact with Soil | 01/01/1980   |           |            |

**Map Identification Number 367** **RESIDENTIAL BLDG** **Facility Id: 2-309133** **Source: NYS DEC**  
 127 W 82 ST NEW YORK, 10024 TT-Id: 640A-0039-408

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 628 feet to the N

ADDRESS CHANGE INFORMATION  
 Revised street: 127 W 82ND ST  
 Revised zip code: NO CHANGE

Operator Name: DED DEDA Operator Phone #: (212) 595-0663  
 Owner Name: -  
 Owner Company: TIME EQUITIES INC Owner Type:  
 Owner Address: 55 FIFTH AVE, NY, NY 10003

| TANK NUMBER | TANK STATUS                         | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------------------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 022         | Tank Converted to Non-Regulated Use | #2 Fuel Oil  | 5000             | Aboveground – In Contact with Soil |              |           | 01/01/2000 |

**Map Identification Number 368** **GREYSTONE CONDOMINIUM** **Facility Id: 2-602707** **Source: NYS DEC**  
 127 WEST 82ND STREET NEW YORK, 10024 TT-Id: 640A-0039-407

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 628 feet to the N

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: RICK MEKULOVIC Operator Phone #: (917) 355-9358  
 Owner Name: -  
 Owner Company: GREYSTONE CONDOMINIUM Owner Type: Corporate or Commercial  
 Owner Address: 250 PARK AVE S. 4TH FL, NEW YORK, NY 10003

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 01          | In Service  | #4 Fuel Oil  | 5000             | Aboveground – In Contact with Soil | 01/01/1950   |           |            |

The following tank 01 content has been deleted or replaced: #2 Fuel Oil

**Map Identification Number 369** **151 W 78 ST**  
 151 WEST 78TH STREET

NEW YORK, 10024

**Facility Id: 2-147370**

**Source: NYS DEC**  
 TT-Id: 640A-0032-245

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 630 feet to the W

ADDRESS CHANGE INFORMATION  
 Revised street: 151 W 78TH ST  
 Revised zip code: NO CHANGE

Operator Name: GILBERT AVILES  
 Owner Name: -  
 Owner Company: WEST 78TH ST ASSOCIATES  
 Owner Address: 1370 BROADWAY 2ND FLOOR, NEW YORK, NY 10018

Operator Phone #: (212) 467-5749  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #2 Fuel Oil  | 1500             | Aboveground - In Contact with Soil |              |           |            |

**Map Identification Number 370** **P.S. 87 - MANHATTAN (M087)**  
 160 WEST 78TH STREET

NEW YORK, 10024

**Facility Id: 2-353477**

**Source: NYS DEC**  
 TT-Id: 640A-0039-392

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 638 feet to the W

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: PLANT OPERATIONS  
 Owner Name: MUNENDRA SHARMA - MANAGER, FUEL DIVISION  
 Owner Company: NEW YORK CITY DEPARTMENT OF EDUCATION  
 Owner Address: 44-36 VERNON BOULEVARD, LONG ISLAND CITY, NY 11101

Operator Phone #: (718) 349-5400  
 Owner Type: Local Government

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #4 Fuel Oil  | 9500             | Aboveground on Crib Rack or Cradle | 02/02/1954   |           |            |

The following tank 001 content has been deleted or replaced: #6 Fuel Oil

**Map Identification Number 371** **146 W 82 ST OWNERS CORP**  
 146 WEST 82ND STREET

NEW YORK, 10024

**Facility Id: 2-198404**

**Source: NYS DEC**  
 TT-Id: 640A-0039-447

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 639 feet to the NNW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Operator Name: ROBERTO TORRES  
 Owner Name: JASON CLAVELL – AGENT  
 Owner Company: 146 WEST 82ND OWNERS CORP.C/O MAXWELL KATOS, INC  
 Owner Address: 9 EAST 38TH. ST, NEW YORK, NY 10016

Operator Phone #: (917) 716–4902  
 Owner Type: Private Resident

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                      | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001         | In Service  | #2 Fuel Oil  | 1500             | Aboveground – In Contact with Soil | 07/25/1972   |           |            |

**Map Identification Number 372** **481 COLUMBUS ASSOC.**  
 73 W 83 ST

**Facility Id: NY00755** **Source: NYC FIRE DEPT**  
 NEW YORK, NY 10024 TT-Id: 660A–0005–959

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 640 feet to the NNE

ADDRESS CHANGE INFORMATION  
 Revised street: 73 W 83RD ST  
 Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: FUEL OIL #2–1,500 GAL.TANK  
 \*\*LIQUOR STORE HAS KEY TO BOILER\*\*

**Map Identification Number 373** **HARTFORD REALTY COMPANY, LLC**  
 60 W 75 STREET

**Facility Id: 2–265926** **Source: NYS DEC**  
 NEW YORK, 10023 TT-Id: 640A–0032–384

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 659 feet to the SSW

ADDRESS CHANGE INFORMATION  
 Revised street: 60 W 75TH STREET  
 Revised zip code: NO CHANGE

Operator Name: R. AZZOPARDI  
 Owner Name: –  
 Owner Company: HARTFORD REALTY COMPANY, LLC  
 Owner Address: 616 PALISADE AVENUE, ENGLEWOOD CLIFFS, NJ 07632

Operator Phone #: (212) 595–1451  
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS       | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION                   | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------------|--------------|------------------|---------------------------------|--------------|-----------|------------|
| 001         | Closed – In Place | #6 Fuel Oil  | 5000             | Underground Vaulted with Access |              |           | 08/28/1990 |



**HAZARDOUS WASTE GENERATORS/TRANSPORTERS IDENTIFIED WITHIN 1/8 MILE SEARCH RADIUS**

PLEASE NOTE: \* Compass directions can vary substantially for sites located very close to the subject property address.

**Map Identification Number 374**  **NYSDEC Name:** **CONSOLIDATED EDISON** **Facility Id:** **NYP004188918**  
 NYSDEC Address: WEST 80 ST & COLUMBUS AVE NEW YORK, NY TT-Id: 740A-0067-134  
 EPA (RCRA) Name: CON EDISON  
 EPA (RCRA) Address: W 80TH ST & COLUMBUS AVE NEW YORK, NY 10024

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 49 feet to the N\*

**ADDRESS CHANGE INFORMATION**

Revised street: W 80TH ST / COLUMBUS AVE  
 Revised zip code: NO CHANGE

US EPA RCRA Type: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR**

Notification date: None Given

Land Disposal: Receives offsite waste:  
 Storer: Treatment facility:

Incinerator:  
 Transporter:

Contact Name: ANTONIO DELGADO Source Type: Emergency Contact Phone: 212-580-8383 Contact Info Date: 07/30/2009

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 2000         | POUNDS      | GENERATED        | 2009 |                         |      |

**Map Identification Number 375**  **NYSDEC Name:** **CON EDISON** **Facility Id:** **NYP004739587**  
 NYSDEC Address: W 80TH ST & COLUMBUS AVE BROOKLYN, NY 11233 TT-Id: 740A-0136-857  
 V 8326

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 49 feet to the N\*

**ADDRESS CHANGE INFORMATION**

Revised street: W 80TH ST / COLUMBUS AVE  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2015 |                         |                       |

Map Identification Number 376



NYSDEC Name:

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

CON EDISON

NWC 79 ST & COLUMBUS AVE  
CON EDISON SERVICE BOX: 51927  
COLUMBUS AVE & 79TH ST NW COR

NEW YORK, NY 10024  
NEW YORK, NY 10024

Facility Id: NYP004322459

TT-Id: 740A-0096-555

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 50 feet to the W\*

ADDRESS CHANGE INFORMATION

Revised street: W 79TH ST / COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: None Given  
Incinerator:  
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency  
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/24/2013  
Contact Phone: 212-460-3770 Contact Info Date: 07/24/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 2000         | POUNDS      | GENERATED        | 2013 |                         |                       |

**Map Identification Number 377**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**

SWC 79 & COLUMBUS AVE  
CON EDISON MANHOLE: 51925  
COLUMBUS AVE & 79TH ST SW COR

NEW YORK, NY 10024

NEW YORK, NY 10024

**Facility Id: NYP004322616**

TT-Id: 740A-0096-568

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 50 feet to the W\*

ADDRESS CHANGE INFORMATION

Revised street: W 79TH ST / COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:

Storer: Treatment facility:

Contact Name: THOMAS TEELING

Contact Name: THOMAS TEELING

Source Type: Emergency

Source Type: Implementer

Notification date: None Given

Incinerator:

Transporter:

Contact Phone: 212-460-3770

Contact Phone: 212-460-3770

Contact Info Date: 06/24/2013

Contact Info Date: 07/24/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 378**



**NYSDEC Name:**

NYSDEC Address:

**CON EDISON**

NWC 79 ST & COLUMBUS AVE  
SB 51927

NEW YORK, NY 10024

**Facility Id: NYP004584280**

TT-Id: 740A-0123-546

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 50 feet to the W\*

ADDRESS CHANGE INFORMATION

Revised street: W 79TH ST / COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 379**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
SWC 79 ST & COLUMBUS AVE  
MH 51925

NEW YORK, NY 10024

**Facility Id: NYP004616207**  
TT-Id: 740A-0123-547

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 50 feet to the W\*

ADDRESS CHANGE INFORMATION

Revised street: W 79TH ST / COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 380**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
18-120 79 ST & COLUMBUS AVE  
SB 14141

NEW YORK, NY 10024

**Facility Id: NYP004616215**  
TT-Id: 740A-0122-566

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 50 feet to the W\*

ADDRESS CHANGE INFORMATION

Revised street: 18-120 W 79TH ST / COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 381**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**

FO 51-7 W 81 ST EO COLUMBUS AVE NEW YORK, NY 10024  
CON EDISON SERVICE BOX: 14410  
517 W 81ST ST & COLUMBUS AVE FRONT NEW YORK, NY 10024  
OF

**Facility Id: NYP004323150**

TT-Id: 740A-0095-480

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 74 feet to the NNE\*

**ADDRESS CHANGE INFORMATION**

Revised street: IFO 51-57 W 81ST ST  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: None Given

Incinerator:  
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency  
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/26/2013  
Contact Phone: 212-460-3770 Contact Info Date: 07/26/2013

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 250          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 382**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**

FO 426-428 COLUMBUS AVE NO 80 ST NEW YORK, NY 10024  
CON EDISON SERVICE BOX: 51935  
426-428 COLUMBUS AVE & 80TH ST FRONT NEW YORK, NY 10024  
OF

**Facility Id: NYP004322483**

TT-Id: 740A-0095-461

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 75 feet to the N\*

**ADDRESS CHANGE INFORMATION**

Revised street: IFO 426-428 COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: None Given

Incinerator:  
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency  
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/24/2013  
Contact Phone: 212-460-3770 Contact Info Date: 07/24/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 250          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 383**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**

FO 430-32 COLUMBUS AVE NO 80 ST  
CON EDISON SERVICE BOX: 51936  
430-32 COLUMBUS AVE & 80TH ST FRONT  
OF

NEW YORK, NY 10024  
NEW YORK, NY 10024

**Facility Id: NYP004322491**

TT-Id: 740A-0095-462

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 75 feet to the N\*

ADDRESS CHANGE INFORMATION

Revised street: IFO 430-432 COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: None Given

Incinerator:  
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency  
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/24/2013  
Contact Phone: 212-460-3770 Contact Info Date: 07/24/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 250          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 384**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**

FO 422-424 COLUMBUS AVE  
CON EDISON SERVICE BOX: 51934  
422-424 COLUMBUS AVE & 80TH ST FRONT  
OF

NEW YORK, NY 10024

NEW YORK, NY 10024

**Facility Id: NYP004322475**

TT-Id: 740A-0095-459

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 76 feet to the N\*

**ADDRESS CHANGE INFORMATION**

Revised street: IFO 422-424 COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: None Given

Incinerator:  
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency  
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/24/2013  
Contact Phone: 212-460-3770 Contact Info Date: 07/24/2013

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 250          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 385**



**NYSDEC Name:**

NYSDEC Address:

**CONED**

W 77TH ST & COLUMBUS AVE

NEW YORK, NY 10001

**Facility Id: NYP004177564**

TT-Id: 740A-0066-409

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 79 feet to the SW\*

**ADDRESS CHANGE INFORMATION**

Revised street: W 77TH ST / COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1100         | POUNDS      | GENERATED        | 2009 |                         |      |

**Map Identification Number 386**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CONSOLIDATED EDISON SB51914**

W 77 ST AND COLUMBUS AVE  
CON EDISON – SERVICE BOX 51914  
W 77 ST AND COLUMBUS AVE

NEW YORK, NY 10024

NEW YORK, NY 10024

**Facility Id: NYP004191276**

TT-Id: 740A-0068-644

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 79 feet to the SW\*

ADDRESS CHANGE INFORMATION

Revised street: W 77TH ST / COLUMBUS AVE  
Revised zip code: UNKNOWN

US EPA RCRA Type: LARGE QUANTITY GENERATOR

Land Disposal: Receives offsite waste:

Storer: Treatment facility:

Contact Name: FRANKLYN MURRAY

Contact Name: ANTHONY BUDA

Source Type: Annual/Biennial Report update with Notification

Source Type: Emergency

Notification date: None Given

Incinerator:

Transporter:

Contact Phone: 212-460-2808

Contact Phone: 917-440-1809

Contact Info Date: 03/23/2010

Contact Info Date: 08/17/2009

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 4000         | POUNDS      | GENERATED        | 2009 |                         |      |

**Map Identification Number 387**



**NYSDEC Name:**

NYSDEC Address:

**CONSOLIDATED EDISON COMPANY OF NY**

N/W/C W 77TH ST AND CENTRAL PA  
RK WEST

NEW YORK, NY 10024

**Facility Id: NYP004252771**

TT-Id: 740A-0082-726

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 79 feet to the SW\*

ADDRESS CHANGE INFORMATION

Revised street: W 77TH ST / COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 3000         | POUNDS      | GENERATED        | 2012 |                         |      |

**Map Identification Number 388**



**NYSDEC Name:**  
NYSDEC Address:

**CONSOLIDATED EDISON**  
N/E COLUMBUS & 77 ST

NEW YORK, NY 10024

**Facility Id: NYP004253761**  
TT-Id: 740A-0082-728

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 79 feet to the SW\*

**ADDRESS CHANGE INFORMATION**

Revised street: COLUMBUS AVE / W 77TH ST  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2012 |                         |                       |

**Map Identification Number 389**



**NYSDEC Name:**  
NYSDEC Address:  
  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**  
NW COLUMBUS & 77 ST  
SB #51914  
CON EDISON SERVICE BOX: 51914  
COLUMBUS AVE & W 77TH ST

NEW YORK, NY 10024

NEW YORK, NY 10024

**Facility Id: NYP004323655**  
TT-Id: 740A-0096-553

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 79 feet to the SW\*

**ADDRESS CHANGE INFORMATION**

Revised street: COLUMBUS AVE / W 77TH ST  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Notification date: None Given

Land Disposal: Receives offsite waste:

Incinerator:

Storer: Treatment facility:

Transporter:

Contact Name: RICARDO CARTY Source Type: Emergency  
Contact Name: RICARDO CARTY Source Type: Implementer

Contact Phone: 646-772-3407 Contact Info Date: 07/01/2013  
Contact Phone: 646-772-3407 Contact Info Date: 08/01/2013

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 1500         | POUNDS      | GENERATED        | 2013 |                         |                       |

**Map Identification Number 390**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**AMERICAN MUSEUM OF NATIONAL HISTORY**

79TH STREET & COLUMBIA  
AMERICAN MUSEUM OF NATURAL HISTORY  
CENTRAL PARK WEST AND 79TH STR

NEW YORK, NY 10024  
NEW YORK, NY 10024

**Facility Id: NYD061202768**

TT-Id: 740A-0031-849

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (2)  
Approximate distance from property: 86 feet to the SE\*

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA Type: SMALL QUANTITY GENERATOR

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: 06/23/1986

Incinerator:  
Transporter:

Contact Name: KALA HARINARAYANAN Source Type: Implementer  
Contact Name: RAJ VOHRA Source Type: Notification  
Contact Name: KALA HARINARAYANAN Source Type: Annual/Biennial Report

Contact Phone: 212-756-5226 Contact Info Date: 01/01/2007  
Contact Phone: 212-873-6095 Contact Info Date: 06/23/1986  
Contact Phone: 212-756-5226 Contact Info Date: 02/23/2004

Historically listed as the following USEPA RCRA Generator Size(s) as well:  
LARGE QUANTITY GENERATOR

**US EPA RCRA Violations:**

Violation Type: Generators – General  
Violation Number: 0001 Location: NY  
Former Citation:

Responsible Agency: STATE  
Violation Determination Date: 10/21/1997  
Violation Return to Compliance: 10/26/1998

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION                                            | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|--------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|------|
| D001       | Solid waste that exhibits the characteristic of ignitability | 5060         | POUNDS      | GENERATED        | 2015 | 6811                    | 2012 |
| D002       | Solid waste that exhibits the characteristic of corrosivity  | 23           | POUNDS      | GENERATED        | 2015 | 1690                    | 1992 |
| D008       | Lead                                                         | 450          | POUNDS      | GENERATED        | 2015 | 3874                    | 2011 |
| U151       | Mercury                                                      | 4            | POUNDS      | GENERATED        | 2015 |                         |      |
| U188       | Phenol                                                       | 5            | POUNDS      | GENERATED        | 2015 | 350                     | 2001 |

More than one waste code was reported for the following waste amount:

|      |                                                              |    |        |           |      |    |      |
|------|--------------------------------------------------------------|----|--------|-----------|------|----|------|
| D001 | Solid waste that exhibits the characteristic of ignitability | 80 | POUNDS | GENERATED | 2015 | 90 | 2010 |
|------|--------------------------------------------------------------|----|--------|-----------|------|----|------|

More than one waste code was reported for the following waste amount:

|      |                                                              |     |        |           |      |  |  |
|------|--------------------------------------------------------------|-----|--------|-----------|------|--|--|
| D001 | Solid waste that exhibits the characteristic of ignitability | 115 | POUNDS | GENERATED | 2015 |  |  |
|------|--------------------------------------------------------------|-----|--------|-----------|------|--|--|

NYS DEC Manifested Waste Transactions for NYD061202768 continued ---- see previous page

| WASTE CODE | WASTE DESCRIPTION                                                             | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead                                                                          |              |             |                  |      |                         |      |
| D018       | BENZENE                                                                       |              |             |                  |      |                         |      |
|            | More than one waste code was reported for the following waste amount:         | 35           | POUNDS      | GENERATED        | 2015 | 97                      | 2014 |
| D001       | Solid waste that exhibits the characteristic of ignitability                  |              |             |                  |      |                         |      |
| D018       | BENZENE                                                                       |              |             |                  |      |                         |      |
|            | More than one waste code was reported for the following waste amount:         | 1            | POUNDS      | GENERATED        | 2015 |                         |      |
| D002       | Solid waste that exhibits the characteristic of corrosivity                   |              |             |                  |      |                         |      |
| D003       | Solid waste that exhibits the characteristic of reactivity                    |              |             |                  |      |                         |      |
|            | More than one waste code was reported for the following waste amount:         | 3            | POUNDS      | GENERATED        | 2015 |                         |      |
| D002       | Solid waste that exhibits the characteristic of corrosivity                   |              |             |                  |      |                         |      |
| U122       | Formaldehyde                                                                  |              |             |                  |      |                         |      |
|            | More than one waste code was reported for the following waste amount:         | 6            | POUNDS      | GENERATED        | 2015 |                         |      |
| U044       | Chloroform                                                                    |              |             |                  |      |                         |      |
| U188       | Phenol                                                                        |              |             |                  |      |                         |      |
| D009       | Mercury                                                                       | 23           | POUNDS      | GENERATED        | 2014 | 6821                    | 1997 |
| D022       | Chloroform                                                                    | 25           | POUNDS      | GENERATED        | 2014 | 40                      | 1997 |
| P106       | Sodium cyanide Na(CN)                                                         | 1            | POUNDS      | GENERATED        | 2014 | 5                       | 2009 |
| U072       | Benzene, 1,4-dichloro-                                                        | 275          | POUNDS      | GENERATED        | 2014 | 1710                    | 2000 |
|            | More than one waste code was reported for the following waste amount:         | 60           | POUNDS      | GENERATED        | 2014 | 100                     | 2013 |
| D001       | Solid waste that exhibits the characteristic of ignitability                  |              |             |                  |      |                         |      |
| D002       | Solid waste that exhibits the characteristic of corrosivity                   |              |             |                  |      |                         |      |
| F003       | Spent non-halogenated solvents                                                |              |             |                  |      |                         |      |
| F005       | Spent non-halogenated solvents                                                |              |             |                  |      |                         |      |
|            | More than one waste code was reported for the following waste amount:         | 1            | POUNDS      | GENERATED        | 2014 | 70                      | 2011 |
| D001       | Solid waste that exhibits the characteristic of ignitability                  |              |             |                  |      |                         |      |
| D003       | Solid waste that exhibits the characteristic of reactivity                    |              |             |                  |      |                         |      |
| B007       | Other PCB Wastes including contaminated soil, solids, sludges, clothing, etc. | 318          | KILOGRAMS   | GENERATED        | 2013 |                         |      |
| D004       | Arsenic                                                                       | 5            | POUNDS      | GENERATED        | 2013 | 10                      | 1986 |
|            | More than one waste code was reported for the following waste amount:         | 30           | POUNDS      | GENERATED        | 2013 | 30                      | 2012 |
| D001       | Solid waste that exhibits the characteristic of ignitability                  |              |             |                  |      |                         |      |
| D002       | Solid waste that exhibits the characteristic of corrosivity                   |              |             |                  |      |                         |      |

NYS DEC Manifested Waste Transactions for NYD061202768 continued ---- see previous page

| WASTE CODE | WASTE DESCRIPTION                                                     | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-----------------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|------|
| F003       | Spent non-halogenated solvents                                        |              |             |                  |      |                         |      |
| U122       | Formaldehyde                                                          |              |             |                  |      |                         |      |
|            | More than one waste code was reported for the following waste amount: | 20           | POUNDS      | GENERATED        | 2013 | 300                     | 2011 |
| D002       | Solid waste that exhibits the characteristic of corrosivity           |              |             |                  |      |                         |      |
| D008       | Lead                                                                  |              |             |                  |      |                         |      |
|            | More than one waste code was reported for the following waste amount: | 36           | POUNDS      | GENERATED        | 2013 |                         |      |
| D004       | Arsenic                                                               |              |             |                  |      |                         |      |
| D009       | Mercury                                                               |              |             |                  |      |                         |      |
|            | More than one waste code was reported for the following waste amount: | 70           | POUNDS      | GENERATED        | 2013 |                         |      |
| D001       | Solid waste that exhibits the characteristic of ignitability          |              |             |                  |      |                         |      |
| D018       | BENZENE                                                               |              |             |                  |      |                         |      |
| F002       | Spent halogenated solvents                                            |              |             |                  |      |                         |      |
| F008       | Plating bath residues from the bottom of plating baths                |              |             |                  |      |                         |      |
| F005       | Spent non-halogenated solvents                                        |              |             |                  |      |                         |      |
|            | More than one waste code was reported for the following waste amount: | 95           | POUNDS      | GENERATED        | 2013 |                         |      |
| D008       | Lead                                                                  |              |             |                  |      |                         |      |
| D011       | Silver                                                                |              |             |                  |      |                         |      |
| U080       | Methylene chloride                                                    |              |             |                  |      |                         |      |
| U228       | Ethene, trichloro-                                                    |              |             |                  |      |                         |      |
| U238       | Carbamic acid, ethyl ester                                            |              |             |                  |      |                         |      |
| D003       | Solid waste that exhibits the characteristic of reactivity            | 5            | POUNDS      | GENERATED        | 2012 | 20                      | 1991 |
|            | More than one waste code was reported for the following waste amount: | 50           | POUNDS      | GENERATED        | 2012 |                         |      |
| D001       | Solid waste that exhibits the characteristic of ignitability          |              |             |                  |      |                         |      |
| D002       | Solid waste that exhibits the characteristic of corrosivity           |              |             |                  |      |                         |      |
| F003       | Spent non-halogenated solvents                                        |              |             |                  |      |                         |      |
| F005       | Spent non-halogenated solvents                                        |              |             |                  |      |                         |      |
| U002       | Acetone (l)                                                           |              |             |                  |      |                         |      |
|            | More than one waste code was reported for the following waste amount: | 15           | POUNDS      | GENERATED        | 2012 |                         |      |
| D001       | Solid waste that exhibits the characteristic of ignitability          |              |             |                  |      |                         |      |
| D007       | Chromium                                                              |              |             |                  |      |                         |      |
| D011       | Silver                                                                |              |             |                  |      |                         |      |

## NYS DEC Manifested Waste Transactions for NYD061202768 continued ----

| WASTE CODE                                                            | WASTE DESCRIPTION                                            | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|-----------------------------------------------------------------------|--------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|------|
| More than one waste code was reported for the following waste amount: |                                                              | 255          | POUNDS      | GENERATED        | 2012 | 1725                    | 2008 |
| D001                                                                  | Solid waste that exhibits the characteristic of ignitability |              |             |                  |      |                         |      |
| F003                                                                  | Spent non-halogenated solvents                               |              |             |                  |      |                         |      |
| F005                                                                  | Spent non-halogenated solvents                               |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 3            | POUNDS      | GENERATED        | 2012 |                         |      |
| D002                                                                  | Solid waste that exhibits the characteristic of corrosivity  |              |             |                  |      |                         |      |
| D004                                                                  | Arsenic                                                      |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 0.28         | POUNDS      | GENERATED        | 2012 |                         |      |
| D003                                                                  | Solid waste that exhibits the characteristic of reactivity   |              |             |                  |      |                         |      |
| P105                                                                  | Sodium azide                                                 |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 0.07         | POUNDS      | GENERATED        | 2012 | 1                       | 2011 |
| D003                                                                  | Solid waste that exhibits the characteristic of reactivity   |              |             |                  |      |                         |      |
| P106                                                                  | Sodium cyanide Na(CN)                                        |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 80           | POUNDS      | GENERATED        | 2012 |                         |      |
| D004                                                                  | Arsenic                                                      |              |             |                  |      |                         |      |
| D008                                                                  | Lead                                                         |              |             |                  |      |                         |      |
| D011                                                                  | Silver                                                       |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 10           | POUNDS      | GENERATED        | 2012 |                         |      |
| D005                                                                  | Barium                                                       |              |             |                  |      |                         |      |
| D007                                                                  | Chromium                                                     |              |             |                  |      |                         |      |
| D008                                                                  | Lead                                                         |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 75           | GALLONS     | GENERATED        | 2012 |                         |      |
| D008                                                                  | Lead                                                         |              |             |                  |      |                         |      |
| D002                                                                  | Solid waste that exhibits the characteristic of corrosivity  |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 5            | POUNDS      | GENERATED        | 2012 |                         |      |
| D022                                                                  | Chloroform                                                   |              |             |                  |      |                         |      |
| U010                                                                  | Mitomycin C                                                  |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 7            | POUNDS      | GENERATED        | 2012 |                         |      |
| D022                                                                  | Chloroform                                                   |              |             |                  |      |                         |      |
| U188                                                                  | Phenol                                                       |              |             |                  |      |                         |      |

## NYS DEC Manifested Waste Transactions for NYD061202768 continued ----

| WASTE CODE                                                            | WASTE DESCRIPTION                                            | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|-----------------------------------------------------------------------|--------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|------|
| More than one waste code was reported for the following waste amount: |                                                              | 130          | POUNDS      | GENERATED        | 2012 |                         |      |
| D001                                                                  | Solid waste that exhibits the characteristic of ignitability |              |             |                  |      |                         |      |
| F003                                                                  | Spent non-halogenated solvents                               |              |             |                  |      |                         |      |
| F005                                                                  | Spent non-halogenated solvents                               |              |             |                  |      |                         |      |
| U117                                                                  | Ethyl ether (l)                                              |              |             |                  |      |                         |      |
| U239                                                                  | Xylene (l)                                                   |              |             |                  |      |                         |      |
| U007                                                                  | Acrylamide                                                   | 2            | POUNDS      | GENERATED        | 2011 | 120                     | 2000 |
| D007                                                                  | Chromium                                                     | 30           | POUNDS      | GENERATED        | 2010 | 60                      | 1992 |
| P087                                                                  | Osmium oxide OsO4, (T-4)-                                    | 2            | POUNDS      | GENERATED        | 2010 | 16                      | 1996 |
| U080                                                                  | Methylene chloride                                           | 35           | POUNDS      | GENERATED        | 2010 | 40                      | 1998 |
| More than one waste code was reported for the following waste amount: |                                                              | 3            | POUNDS      | GENERATED        | 2010 |                         |      |
| D001                                                                  | Solid waste that exhibits the characteristic of ignitability |              |             |                  |      |                         |      |
| D008                                                                  | Lead                                                         |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 130          | POUNDS      | GENERATED        | 2010 |                         |      |
| D001                                                                  | Solid waste that exhibits the characteristic of ignitability |              |             |                  |      |                         |      |
| D002                                                                  | Solid waste that exhibits the characteristic of corrosivity  |              |             |                  |      |                         |      |
| D035                                                                  | Methyl ethyl ketone                                          |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 60           | POUNDS      | GENERATED        | 2010 |                         |      |
| D001                                                                  | Solid waste that exhibits the characteristic of ignitability |              |             |                  |      |                         |      |
| D005                                                                  | Barium                                                       |              |             |                  |      |                         |      |
| F002                                                                  | Spent halogenated solvents                                   |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 1            | POUNDS      | GENERATED        | 2009 | 7                       | 2007 |
| D001                                                                  | Solid waste that exhibits the characteristic of ignitability |              |             |                  |      |                         |      |
| D011                                                                  | Silver                                                       |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 2            | POUNDS      | GENERATED        | 2008 | 20                      | 2007 |
| D001                                                                  | Solid waste that exhibits the characteristic of ignitability |              |             |                  |      |                         |      |
| D022                                                                  | Chloroform                                                   |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 7            | POUNDS      | GENERATED        | 2007 |                         |      |
| D001                                                                  | Solid waste that exhibits the characteristic of ignitability |              |             |                  |      |                         |      |
| D002                                                                  | Solid waste that exhibits the characteristic of corrosivity  |              |             |                  |      |                         |      |
| D003                                                                  | Solid waste that exhibits the characteristic of reactivity   |              |             |                  |      |                         |      |

NYS DEC Manifested Waste Transactions for NYD061202768 continued ----

| WASTE CODE                                                            | WASTE DESCRIPTION                                            | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|-----------------------------------------------------------------------|--------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|------|
| More than one waste code was reported for the following waste amount: |                                                              | 100          | POUNDS      | GENERATED        | 2007 |                         |      |
| D001                                                                  | Solid waste that exhibits the characteristic of ignitability |              |             |                  |      |                         |      |
| D002                                                                  | Solid waste that exhibits the characteristic of corrosivity  |              |             |                  |      |                         |      |
| D018                                                                  | BENZENE                                                      |              |             |                  |      |                         |      |
| D035                                                                  | Methyl ethyl ketone                                          |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 150          | POUNDS      | GENERATED        | 2007 |                         |      |
| D001                                                                  | Solid waste that exhibits the characteristic of ignitability |              |             |                  |      |                         |      |
| D002                                                                  | Solid waste that exhibits the characteristic of corrosivity  |              |             |                  |      |                         |      |
| U003                                                                  | Acetonitrile (I,T)                                           |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 125          | POUNDS      | GENERATED        | 2007 |                         |      |
| D004                                                                  | Arsenic                                                      |              |             |                  |      |                         |      |
| D022                                                                  | Chloroform                                                   |              |             |                  |      |                         |      |
| F002                                                                  | Spent halogenated solvents                                   | 400          | POUNDS      | GENERATED        | 2006 | 400                     | 1998 |
| F027                                                                  | Discarded unused formulations                                | 5            | POUNDS      | GENERATED        | 2006 |                         |      |
| U002                                                                  | Acetone (I)                                                  | 375          | POUNDS      | GENERATED        | 2006 |                         |      |
| U044                                                                  | Chloroform                                                   | 8            | POUNDS      | GENERATED        | 2006 | 45                      | 1997 |
| U122                                                                  | Formaldehyde                                                 | 5            | POUNDS      | GENERATED        | 2006 | 120                     | 1995 |
| U147                                                                  | 2,5-Furandione                                               | 5            | POUNDS      | GENERATED        | 2006 |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 7            | POUNDS      | GENERATED        | 2006 |                         |      |
| D001                                                                  | Solid waste that exhibits the characteristic of ignitability |              |             |                  |      |                         |      |
| D022                                                                  | Chloroform                                                   |              |             |                  |      |                         |      |
| U188                                                                  | Phenol                                                       |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 66           | POUNDS      | GENERATED        | 2006 |                         |      |
| D001                                                                  | Solid waste that exhibits the characteristic of ignitability |              |             |                  |      |                         |      |
| D043                                                                  | Vinyl chloride                                               |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 6            | POUNDS      | GENERATED        | 2006 |                         |      |
| D001                                                                  | Solid waste that exhibits the characteristic of ignitability |              |             |                  |      |                         |      |
| U082                                                                  | 2,6-Dichlorophenol                                           |              |             |                  |      |                         |      |
| More than one waste code was reported for the following waste amount: |                                                              | 120          | POUNDS      | GENERATED        | 2006 |                         |      |
| D001                                                                  | Solid waste that exhibits the characteristic of ignitability |              |             |                  |      |                         |      |
| U165                                                                  | Naphthalene                                                  |              |             |                  |      |                         |      |
| B001                                                                  | PCB Oil (concentrated) from transformers, capacitors, etc.   | 1            | KILOGRAMS   | GENERATED        | 2005 |                         |      |

## NYS DEC Manifested Waste Transactions for NYD061202768 continued ----

| WASTE CODE | WASTE DESCRIPTION                                            | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|--------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|------|
| D006       | Cadmium                                                      | 50           | POUNDS      | GENERATED        | 2005 | 150                     | 1999 |
| D007       | Chromium                                                     | 600          | GALLONS     | GENERATED        | 2005 |                         |      |
| F003       | Spent non-halogenated solvents                               | 630          | POUNDS      | GENERATED        | 2005 | 2125                    | 2003 |
| P030       | Cyanides (soluble cyanide salts), not otherwise specified    | 1            | POUNDS      | GENERATED        | 2005 | 70                      | 1992 |
| U021       | Benzidine                                                    | 175          | POUNDS      | GENERATED        | 2005 |                         |      |
| U123       | Formic acid (C,T)                                            | 50           | POUNDS      | GENERATED        | 2005 | 135                     | 2000 |
| U134       | Hydrogen fluoride (C,T)                                      | 1            | POUNDS      | GENERATED        | 2005 |                         |      |
| U138       | Methane, iodo-                                               | 1            | POUNDS      | GENERATED        | 2005 |                         |      |
| U165       | Naphthalene                                                  | 23           | POUNDS      | GENERATED        | 2005 | 700                     | 2000 |
| U108       | 1,4-Diethyleneoxide                                          | 75           | POUNDS      | GENERATED        | 2004 |                         |      |
| F005       | Spent non-halogenated solvents                               | 300          | POUNDS      | GENERATED        | 2002 |                         |      |
| D011       | Silver                                                       | 60           | POUNDS      | GENERATED        | 2000 | 900                     | 1996 |
| D001       | Solid waste that exhibits the characteristic of ignitability | 19           | GALLONS     | GENERATED        | 1999 |                         |      |
| F001       | Spent halogenated solvents used in degreasing                | 100          | GALLONS     | GENERATED        | 1999 |                         |      |
| D018       | BENZENE                                                      | 400          | POUNDS      | GENERATED        | 1997 | 400                     | 1996 |
| U182       | 1,3,5-Trioxane, 2,4,6-trimethyl-                             | 30           | POUNDS      | GENERATED        | 1997 |                         |      |
| U238       | Carbamic acid, ethyl ester                                   | 30           | POUNDS      | GENERATED        | 1997 |                         |      |
| U211       | Methane, tetrachloro-                                        | 10           | POUNDS      | GENERATED        | 1996 | 10                      | 1992 |
| U012       | Aniline (I,T)                                                | 60           | POUNDS      | GENERATED        | 1995 | 60                      | 1994 |
| P012       | Arsenic oxide As <sub>2</sub> O <sub>3</sub>                 | 20           | POUNDS      | GENERATED        | 1994 |                         |      |
| U019       | Benzene (I,T)                                                | 115          | POUNDS      | GENERATED        | 1994 |                         |      |
| U220       | Toluene                                                      | 60           | POUNDS      | GENERATED        | 1994 |                         |      |
| P108       | Strychnine, & salts                                          | 10           | POUNDS      | GENERATED        | 1992 |                         |      |
| U069       | 1,2-Benzenedicarboxylic acid, dibutyl ester                  | 10           | POUNDS      | GENERATED        | 1992 |                         |      |
| U077       | Ethane, 1,2-dichloro-                                        | 60           | POUNDS      | GENERATED        | 1992 |                         |      |
| U228       | Ethene, trichloro-                                           | 60           | POUNDS      | GENERATED        | 1992 |                         |      |
| U239       | Xylene (I)                                                   | 60           | POUNDS      | GENERATED        | 1992 |                         |      |
| F004       | Spent non-halogenated solvents                               | 10           | POUNDS      | GENERATED        | 1988 |                         |      |
| X726       | Unknown waste type.                                          | 400          | POUNDS      | GENERATED        | 1988 |                         |      |
| X850       | Unknown waste type.                                          | 190          | POUNDS      | GENERATED        | 1988 | 240                     | 1986 |
| X900       | Unknown waste type.                                          | 800          | POUNDS      | GENERATED        | 1988 |                         |      |
| X940       | Unknown waste type.                                          | 525          | POUNDS      | GENERATED        | 1986 |                         |      |

**Map Identification Number 391**  **NYSDEC Name:** **AMERICAN MUSEUM OF NATURAL HISTORY** **Facility Id: NYP000782847**  
**NYSDEC Address:** **CENTRAL PARK W & 79TH ST** **NEW YORK, NY 10024** **TT-Id: 740A-0026-445**

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (2)  
 Approximate distance from property: 86 feet to the SE\*

**ADDRESS CHANGE INFORMATION**

Revised street: CENTRAL PARK WEST / w 79TH ST  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION                                            | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|--------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|------|
| D001       | Solid waste that exhibits the characteristic of ignitability | 120          | POUNDS      | GENERATED        | 1984 |                         |      |

**Map Identification Number 392**  **NYSDEC Name:** **CONSOLIDATED EDISON** **Facility Id: NYP004084364**  
**NYSDEC Address:** **V0062 - 41-49 W 81ST** **NEW YORK, NY 10003** **TT-Id: 740A-0024-674**  
**EPA (RCRA) Name:** **CON EDISION - V0062**  
**EPA (RCRA) Address:** **4149 WEST 81ST 4149 WEST 81ST** **NEW YORK, NY 10003**

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 129 feet to the NE\*

**ADDRESS CHANGE INFORMATION**

Revised street: 41-49 W 81ST ST  
 Revised zip code: 10024

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Notification date: None Given

Land Disposal: Receives offsite waste:  
 Storer: Treatment facility:

Incinerator:  
 Transporter:

Contact Name: ANTHONY DRUMMINGS Source Type: Implementer  
 Contact Name: ANTHONY DRUMMINGS Source Type: Annual/Biennial Report

Contact Phone: 212-460-3770 Contact Info Date: 06/02/2002  
 Contact Phone: 212-460-3770 Contact Info Date: 05/31/2002

Historically listed as the following USEPA RCRA Generator Size(s) as well:  
 LARGE QUANTITY GENERATOR

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION                                                | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|------------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|------|
| B002       | Petroleum oil or other liquid containing 50 ppm < PCBs < 500 ppm | 2600         | KILOGRAMS   | GENERATED        | 2001 |                         |      |

**Map Identification Number 393**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**

FO 41 W 81 ST EO COLUMBUS AVE  
CON EDISON SERVICE BOX: 14412  
419 W 81ST ST & COLUMBUS AVE FRONT  
OF

NEW YORK, NY 10024  
NEW YORK, NY 10024

**Facility Id: NYP004322772**

TT-Id: 740A-0093-784

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 129 feet to the NE\*

**ADDRESS CHANGE INFORMATION**

Revised street: 41 W 81ST ST  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Contact Name: THOMAS TEELING Source Type: Emergency  
Contact Name: THOMAS TEELING Source Type: Implementer

Notification date: None Given

Incinerator:  
Transporter:

Contact Phone: 212-460-3770 Contact Info Date: 06/25/2013  
Contact Phone: 212-460-3770 Contact Info Date: 07/25/2013

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 394**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**ADLERS CLEANERS**

445 COLUMBUS AVE  
ADLERS  
445 COLUMBUS AVE

NEW YORK, NY 10024  
NEW YORK, NY 10024

**Facility Id: NYD006545883**

TT-Id: 740A-0024-747

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 132 feet to the NNE\*

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: 11/23/1994  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: MARTIN REINGOLD Source Type: Implementer Contact Phone: 212-362-4565 Contact Info Date: 01/01/2007  
 Contact Name: MARTIN REINGOLD Source Type: Notification Contact Phone: 212-362-4565 Contact Info Date: 11/23/1994

Historically listed as the following USEPA RCRA Generator Size(s) as well:  
 CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

US EPA RCRA Violations:  
 Violation Type: Generators – Manifest Responsible Agency: STATE  
 Violation Number: 0001 Location: NY Violation Determination Date: 04/24/1987  
 Former Citation: Violation Return to Compliance: 04/26/1987

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION          | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|----------------------------|--------------|-------------|------------------|------|-------------------------|------|
| F002       | Spent halogenated solvents | 390          | POUNDS      | GENERATED        | 1998 | 5225                    | 1988 |
| F002       | Spent halogenated solvents | 55           | GALLONS     | GENERATED        | 1986 |                         |      |

**Map Identification Number 395** **NYSDEC Name: JEFAN CLEANING SERVICE** **Facility Id: NYD981083835**  
 NYSDEC Address: 445 COLUMBUS AVENUE NEW YORK, NY 10024 TT-Id: 740A-0024-803  
 EPA (RCRA) Name: JEFAN CLEANING SERVICE CORP  
 EPA (RCRA) Address: 445 COLUMBUS AVE NEW YORK, NY 10024

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 132 feet to the NNE\*

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: 07/15/1985  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: MARTIN REINGOLD Source Type: Notification Contact Phone: 212-555-1212 Contact Info Date: 07/15/1985

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION          | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|----------------------------|--------------|-------------|------------------|------|-------------------------|------|
| F002       | Spent halogenated solvents | 800          | POUNDS      | GENERATED        | 1986 |                         |      |

**Map Identification Number 396**  **NYSDEC Name:** **EVELYN BUILDING THE** **Facility Id:** **NYR000225490**  
 NYSDEC Address: 101 W 78TH ST NEW YORK, NY 10018 TT-Id: 740A-0145-078  
 EPA (RCRA) Name: EVELYN BUILDING THE  
 EPA (RCRA) Address: 101 W 78TH ST NEW YORK, NY 10018

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 141 feet to the WSW\*

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA Type: SMALL QUANTITY GENERATOR  
 Land Disposal: Receives offsite waste:  
 Storer: Treatment facility:  
 Contact Name: JOE VELA Source Type: Temporary

Notification date: None Given  
 Incinerator:  
 Transporter:  
 Contact Phone: 248-408-9308 Contact Info Date: 01/22/2016

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION                                                     | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-----------------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|------|
| NONE       | Site reported by US EPA. No hazardous waste activity reported by NYS. |              |             |                  |      |                         |      |

**Map Identification Number 397**  **NYSDEC Name:** **CON EDISON** **Facility Id:** **NYP004660627**  
 NYSDEC Address: 420 COLUMBUS & 80 ST NEW YORK, NY 10024 TT-Id: 740A-0122-569  
 SERVICE BOX # 51935

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 143 feet to the NNW\*

ADDRESS CHANGE INFORMATION  
 Revised street: 420 COLUMBUS AVE  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2014 |                         |                       |

**Map Identification Number 398**



**NYSDEC Name:**

NYSDEC Address:  
 EPA (RCRA) Name:  
 EPA (RCRA) Address:

**CON EDISON**

FO 441 COLUMBUS AVE NO 81 ST  
 CON EDISON SERVICE BOX: 51944  
 441 COLUMBUS AVE & 81ST ST FRONT  
 OF

NEW YORK, NY 10024

NEW YORK, NY 10024

**Facility Id: NYP004322699**

TT-Id: 740A-0093-779

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 144 feet to the NNE\*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: None Given

Incinerator:

Transporter:

Contact Name: THOMAS TEELING

Source Type: Emergency

Contact Phone: 212-460-3770

Contact Info Date: 06/24/2013

Contact Name: THOMAS TEELING

Source Type: Implementer

Contact Phone: 212-460-3770

Contact Info Date: 07/24/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2013 |                         |                       |

**Map Identification Number 399**

 **NYSDEC Name:** **PARK 44 CORPORATION**  
**NYSDEC Address:** 44 W 77TH ST  
**EPA (RCRA) Name:** PARK 44 CORPORATION  
**EPA (RCRA) Address:** 44 W 77TH ST

NEW YORK, NY 10024

NEW YORK, NY 10024

**Facility Id: NYR000176487**  
 TT-Id: 740A-0072-157

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 200 feet to the SSW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA Type: SMALL QUANTITY GENERATOR  
 Land Disposal: Receives offsite waste:  
 Storer: Treatment facility:

Notification date: 07/07/2010  
 Incinerator:  
 Transporter:

Contact Name: BRYAN SHAW Source Type: Implementer  
 Contact Name: ANTHONY KIERNAN Source Type: Notification

Contact Phone: 212-922-77 Contact Info Date: 01/03/2011  
 Contact Phone: 212-787-334 Contact Info Date: 11/26/2012

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 450          | POUNDS      | GENERATED        | 2010 |                         |      |

**Map Identification Number 400**

 **NYSDEC Name:** **CON EDISON**  
**NYSDEC Address:** FO 440 COLUMBUS AVE NO 81 ST  
**EPA (RCRA) Name:** CON EDISON SERVICE BOX: 51940  
**EPA (RCRA) Address:** 440 COLUMBUS AVE IN FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

**Facility Id: NYP004322335**  
 TT-Id: 740A-0093-763

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 205 feet to the NNE

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN  
 Land Disposal: Receives offsite waste:  
 Storer: Treatment facility:

Notification date: None Given  
 Incinerator:  
 Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency  
 Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/23/2013  
 Contact Phone: 212-460-3770 Contact Info Date: 07/23/2013

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 250          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 401**  **NYSDEC Name:** CON EDISON  
**NYSDEC Address:** FO 446 COLUMBUS AVE NEW YORK, NY 10024  
**Facility Id:** NYP004771267  
 TT-Id: 740A-0137-341

MAP LOCATION INFORMATION  
 Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 205 feet to the NNE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2015 |                         |      |

**Map Identification Number 402**  **NYSDEC Name:** CON EDISON  
**NYSDEC Address:** 108 W 81 ST NEW YORK, NY 10024  
**Facility Id:** NYP004665659  
 TT-Id: 740A-0121-143

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 218 feet to the N

ADDRESS CHANGE INFORMATION  
 Revised street: 108 W 81ST ST  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2014 |                         |                       |

Map Identification Number 403



NYSDEC Name:

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

CON EDISON

FO 108 W 81 ST EO AMSTERDAM AVE  
CON EDISON SERVICE BOX: 14408  
108 W 81ST ST FRONT OF

NEW YORK, NY 10024  
NEW YORK, NY 10024

Facility Id: NYP004322806

TT-Id: 740A-0093-785

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 224 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: None Given  
Incinerator:  
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency  
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/25/2013  
Contact Phone: 212-460-3770 Contact Info Date: 07/25/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2013 |                         |                       |

**Map Identification Number 404**



**NYSDEC Name:**

NYSDEC Address:

**CON EDISON**

442 COLUMBUS AVE  
SB 51934

NEW YORK, NY 10024

**Facility Id: NYP004771382**

TT-Id: 740A-0137-005

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 226 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2015 |                         |                       |

**Map Identification Number 405**



**NYSDEC Name:**

NYSDEC Address:

**CONSOLIDATED EDISON**

104 WEST 80 STREET

NEW YORK, NY 10020

**Facility Id: NYP004177630**

TT-Id: 740A-0067-362

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 230 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: 104 W 80TH ST  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2009 |                         |                       |

**Map Identification Number 406**  **NYSDEC Name:** **CONSOLIDATED EDISON** **Facility Id:** **NYP044177630**  
**NYSDEC Address:** 104 WEST 80 STREET MANHATTAN, NY 10020 **TT-Id:** 740A-0067-546

**MAP LOCATION INFORMATION**  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 230 feet to the NW

**ADDRESS CHANGE INFORMATION**  
 Revised street: 104 W 80TH ST  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|

NONE No hazardous waste activity reported by NYS up to 4/22/2016.

**Map Identification Number 407**  **NYSDEC Name:** **RUDIN MGMT CO /25 WEST 81 STREET** **Facility Id:** **NYD987038908**  
**NYSDEC Address:** 25 WEST 81 STREET NEW YORK, NY 10024 **TT-Id:** 740A-0026-228  
**EPA (RCRA) Name:** 25 WEST 81ST STREET  
**EPA (RCRA) Address:** 25 W 81ST ST APT 16E NEW YORK, NY 100246023

**MAP LOCATION INFORMATION**  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 245 feet to the ENE

**ADDRESS CHANGE INFORMATION**  
 Revised street: 25 W 81ST ST  
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN  
 Land Disposal: Receives offsite waste:  
 Storer: Treatment facility:  
 Contact Name: RICHARD CONCANNON Source Type: Notification

Notification date: 08/09/1993  
 Incinerator:  
 Transporter:  
 Contact Phone: 212-644-8522 Contact Info Date: 08/09/1993

Historically listed as the following USEPA RCRA Generator Size(s) as well:  
 SMALL QUANTITY GENERATOR

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION                                            | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|--------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|------|
| D001       | Solid waste that exhibits the characteristic of ignitability | 400          | POUNDS      | GENERATED        | 2007 |                         |      |

**Map Identification Number 408**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**

FO 118 W 79 ST EO AMSTERDAM AVE  
CON EDISON SERVICE BOX: 14141  
118-120 W 79TH ST & AMSTERDAM AVE  
FRONT OF

NEW YORK, NY 10024  
NEW YORK, NY 10024

**Facility Id: NYP004322632**

TT-Id: 740A-0093-775

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 246 feet to the WNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Contact Name: THOMAS TEELING Source Type: Emergency  
Contact Name: THOMAS TEELING Source Type: Implementer

Notification date: None Given

Incinerator:  
Transporter:

Contact Phone: 212-460-3770 Contact Info Date: 06/24/2013  
Contact Phone: 212-460-3770 Contact Info Date: 07/24/2013

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1500         | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 409**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**

FO 117 W 79 ST EO AMSTERDAM AVE  
CON EDISON SERVICE BOX: 14132  
117 W 79TH ST & AMSTERDAM AVE  
FRONT OF

NEW YORK, NY 10024  
NEW YORK, NY 10024

**Facility Id: NYP004322467**

TT-Id: 740A-0093-770

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 251 feet to the WNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 06/24/2013  
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 07/24/2013

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 410**  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004321824  
 NYSDEC Address: FO 343 COLUMBUS AVE NO 76 ST NEW YORK, NY 10023 TT-Id: 740A-0093-754  
 EPA (RCRA) Name: CON EDISON SERVICE BOX: 51910  
 EPA (RCRA) Address: 343 76TH ST & COLUMBUS AVE FRONT NEW YORK, NY 10023  
 OF

MAP LOCATION INFORMATION  
 Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 258 feet to the SW

ADDRESS CHANGE INFORMATION  
 Revised street: 343 COLUMBUS AVE  
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 06/20/2013  
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 07/20/2013

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 411**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
OPP 341 COLUMBUS AVE & 76 ST  
SB 51904

NEW YORK, NY 10023

**Facility Id: NYP004748158**  
TT-Id: 740A-0131-704

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 259 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2015 |                         |                       |

**Map Identification Number 412**



**NYSDEC Name:**  
NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CONSOLIDATED EDISON**  
345 COLUMBUS AVE  
CON EDISON  
345 COLUMBUS AVE & W 78TH ST

MANHATTAN, NY 10020  
NEW YORK, NY 10024

**Facility Id: NYP004199287**  
TT-Id: 740A-0072-064

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 260 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA Type: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

Notification date: None Given

Land Disposal: Receives offsite waste:

Incinerator:

Storer: Treatment facility:

Transporter:

Contact Name: DENNIS MICHAELIDES Source Type: Emergency

Contact Phone: 718-204-4297 Contact Info Date: 11/06/2009

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 750          | POUNDS      | GENERATED        | 2009 |                         |                       |

**Map Identification Number 413**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**

FO 112 W 81 ST EO AMSTERDAM AVE  
CON EDISON SERVICE BOX: 14407  
112 W 81ST ST & AMSTERDAM AVE  
FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

**Facility Id: NYP004322756**

TT-Id: 740A-0093-783

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 265 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: None Given

Incinerator:  
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency  
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/25/2013  
Contact Phone: 212-460-3770 Contact Info Date: 07/25/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 414**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CONSOLIDATED EDISON**

115 W 77TH ST  
CON EDISON  
115 W 77TH ST W OF COLUMBUS AVE

NEW YORK, NY

NEW YORK, NY 10024

**Facility Id: NYP004165833**

TT-Id: 740A-0066-520

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 267 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA Type: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: None Given

Incinerator:  
Transporter:

Contact Name: NEIL SKOW Source Type: Emergency

Contact Phone: 718-204-4249 Contact Info Date: 04/03/2009

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 150          | POUNDS      | GENERATED        | 2009 |                         |      |

**Map Identification Number 415**  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004724308  
**NYSDEC Address:** 113 W 78 ST NEW YORK, NY 10024 **TT-Id:** 740A-0131-485  
 SB13996

**MAP LOCATION INFORMATION**  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 291 feet to the W

**ADDRESS CHANGE INFORMATION**  
 Revised street: 113 W 78TH ST  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2015 |                         |      |

**Map Identification Number 416**  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004321931  
**NYSDEC Address:** FO 114 W 78 ST EO AMSTERDAM AVE NEW YORK, NY 10024 **TT-Id:** 740A-0093-758  
**EPA (RCRA) Name:** CON EDISON SERVICE BOX: 14007  
**EPA (RCRA) Address:** 114 W 78TH ST & AMSTERDAM AVE NEW YORK, NY 10024  
 FRONT OF

**MAP LOCATION INFORMATION**  
 Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 299 feet to the WSW

**ADDRESS CHANGE INFORMATION**  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 06/20/2013  
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 07/20/2013

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 417**  **NYSDEC Name:** CON ED **Facility Id:** NYP004762563  
 NYSDEC Address: 340 COLUMBUS AVE NEW YORK, NY 10024 TT-Id: 740A-0136-959  
 SB 51804

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 325 feet to the SW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2015 |                         |      |

**Map Identification Number 418**  **NYSDEC Name:** CON ED **Facility Id:** NYP004776233  
 NYSDEC Address: 340 COLUMBUS AVE NEW YORK, NY 10023 TT-Id: 740A-0137-045  
 SB 51904

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 325 feet to the SW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2015 |                         |                       |

Map Identification Number 419



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

NYC DEPT OF EDUCATION – I S 44M

100 W 77TH ST

NYC DEPT OF EDUCATION – I S 44M

100 W 77TH ST

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYR000214569

TT-Id: 740A-0130-738

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 325 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA Type: SMALL QUANTITY GENERATOR

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: 10/21/2014

Incinerator:

Transporter:

Contact Name: ALEXANDER LEMPERT

Source Type: Notification

Contact Phone: 718-742-8501

Contact Info Date: 10/21/2014

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE                                                            | WASTE DESCRIPTION                                                             | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|-----------------------------------------------------------------------|-------------------------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| B007                                                                  | Other PCB Wastes including contaminated soil, solids, sludges, clothing, etc. | 1165         | KILOGRAMS   | GENERATED        | 2015 |                         |                       |
| More than one waste code was reported for the following waste amount: |                                                                               | 9            | KILOGRAMS   | GENERATED        | 2014 |                         |                       |
| B007                                                                  | Other PCB Wastes including contaminated soil, solids, sludges, clothing, etc. |              |             |                  |      |                         |                       |
| B002                                                                  | Petroleum oil or other liquid containing 50 ppm < PCBs < 500 ppm              |              |             |                  |      |                         |                       |

**Map Identification Number 420**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**

129 W 80TH ST & AMSTERDAM AV  
CON EDISON SERVICE BOX: 14256  
129 W 80TH ST & AMSTERDAM AVE

NEW YORK, NY 10024

NEW YORK, NY 10024

**Facility Id: NYP004414678**

TT-Id: 740A-0101-723

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 332 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: 129 W 80TH ST  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN  
Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: None Given  
Incinerator:  
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency  
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 01/08/2014  
Contact Phone: 212-460-3770 Contact Info Date: 02/08/2014

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 100          | GALLONS     | GENERATED        | 2014 |                         |      |

**Map Identification Number 421**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**

W 82 ST LO COLUMBUS AVE  
CON EDISON SERVICE BOX: 14561  
W 82NS ST & COLUMBUS AVE

NEW YORK, NY 10021

NEW YORK, NY 10024

**Facility Id: NYP004323143**

TT-Id: 740A-0095-414

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 335 feet to the NNE

**ADDRESS CHANGE INFORMATION**

Revised street: W 82ND ST / COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN  
Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: None Given  
Incinerator:  
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency  
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/26/2013  
Contact Phone: 212-460-3770 Contact Info Date: 07/26/2013

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 422**  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004427522  
 NYSDEC Address: 468 82ND ST & COLUMBUS AVE NEW YORK, NY 10028 TT-Id: 740A-0103-019  
 EPA (RCRA) Name: CON EDISON SERVICE BOX: 51949  
 EPA (RCRA) Address: 468 82ND ST & COLUMBUS AVE NEW YORK, NY 10028

MAP LOCATION INFORMATION  
 Site location mapped by: MANUAL MAPPING (4)  
 Approximate distance from property: 335 feet to the NNE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 01/27/2014  
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 02/27/2014

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 423**  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004657276  
 NYSDEC Address: W 82 ST & COLUMBUS AV NEW YORK, NY 10024 TT-Id: 740A-0119-505  
 SB14574

MAP LOCATION INFORMATION  
 Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 335 feet to the NNE

ADDRESS CHANGE INFORMATION  
 Revised street: W 82ND ST / COLUMBUS AVE  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 424**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
N/E/C 82 ST & COLUMBUS AVE  
SB51951

NEW YORK, NY 10024

**Facility Id: NYP004657888**  
TT-Id: 740A-0123-549

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 335 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: W 82ND ST / COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1500         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 425**



**NYSDEC Name:**  
NYSDEC Address:

**CONSOLIDATED EDISON**  
F/O 43 W 76 E/O COLUMBUS AVE

NEW YORK, NY 10003

**Facility Id: NYP004255352**  
TT-Id: 740A-0082-210

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 336 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: IFO 43 W 76TH ST  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2012 |                         |                       |

**Map Identification Number 426**



**NYSDEC Name:**  
NYSDEC Address:

**CONSOLIDATED EDISON**  
76 ST & COLUMBUS AVE V6001

NEW YORK, NY 10021

**Facility Id: NYP004124798**  
TT-Id: 740A-0029-220

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 337 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: W 76TH ST / COLUMBUS AVE

Revised zip code: 10023

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION                                                | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|------------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| B002       | Petroleum oil or other liquid containing 50 ppm < PCBs < 500 ppm | 1127         | KILOGRAMS   | GENERATED        | 2004 |                         |                       |

**Map Identification Number 427**



**NYSDEC Name:**  
NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**  
NWC 76 ST & COLUMBUS AVE  
CON EDISON SERVICE BOX: 51903  
COLUMBUS AVE & 76TH ST NW COR

NEW YORK, NY 10023

NEW YORK, NY 10023

**Facility Id: NYP004321915**  
TT-Id: 740A-0096-530

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 337 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: W 76TH ST / COLUMBUS AVE

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 06/20/2013  
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 07/20/2013

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 428**  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004628343  
**NYSDEC Address:** W 76 ST & COLUMBUS AVE NEW YORK, NY 10024 TT-Id: 740A-0119-401  
 SB 13703

**MAP LOCATION INFORMATION**  
 Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 337 feet to the SW

**ADDRESS CHANGE INFORMATION**  
 Revised street: W 76TH ST / COLUMBUS AVE  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 429**  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004747747  
**NYSDEC Address:** W 76 ST & COLUMBUS AV NEW YORK, NY 10023 TT-Id: 740A-0130-957  
 SB51903

**MAP LOCATION INFORMATION**  
 Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 337 feet to the SW

**ADDRESS CHANGE INFORMATION**  
 Revised street: W 76TH ST / COLUMBUS AVE  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2015 |                         |      |

**Map Identification Number 430**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
76TH ST & COLUMBUS AVE  
MH 51972

NEW YORK, NY 10023

**Facility Id: NYP004748166**  
TT-Id: 740A-0132-524

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 337 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: W 76TH ST / COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 2000         | POUNDS      | GENERATED        | 2015 |                         |      |

**Map Identification Number 431**



**NYSDEC Name:**  
NYSDEC Address:

**CON ED**  
N/W/C 76 ST & COLUMBUS AVE  
SB 51903

NEW YORK, NY 10023

**Facility Id: NYP004776241**  
TT-Id: 740A-0137-686

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 337 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: W 76TH ST / COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2015 |                         |      |

**Map Identification Number 432**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
120-28 W 79 & COLUMBUS AVE  
SB 14140

NEW YORK, NY 10024

**Facility Id: NYP004616223**  
TT-Id: 740A-0122-578

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 339 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: 120-128 W 79TH ST  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 433**



**NYSDEC Name:**  
NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**  
FO 120 W 79 ST EO AMSTERDAM AVE  
CON EDISON SERVICE BOX: 14140  
120-28 W 79TH ST & AMSTERDAM AVE  
FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

**Facility Id: NYP004322624**  
TT-Id: 740A-0093-774

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 347 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 06/24/2013  
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 07/24/2013

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 434**  **NYSDEC Name:** CONSOLIDATED EDISON **Facility Id:** NYP004177648  
**NYSDEC Address:** 122 WEST 81 STREET NEW YORK, NY 10020 **TT-Id:** 740A-0067-363

**MAP LOCATION INFORMATION**  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 362 feet to the NNW

**ADDRESS CHANGE INFORMATION**  
 Revised street: 122 W 81ST ST  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 2000         | POUNDS      | GENERATED        | 2009 |                         |      |

**Map Identification Number 435**  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004636387  
**NYSDEC Address:** 20 WEST 82ND STREET NEW YORK, NY 10024 **TT-Id:** 740A-0122-579

**MAP LOCATION INFORMATION**  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 374 feet to the ENE

**ADDRESS CHANGE INFORMATION**  
 Revised street: 20 W 82ND ST  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 4500         | POUNDS      | GENERATED        | 2014 |                         |                       |

Map Identification Number 436



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

**CONED**

101 W 82 STREET AND COLUMBUS A  
VE

CON EDISON – MANHOLE 63484

101 W 82 STREET AND COLUMBUS A  
VE

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004177796

TT-Id: 740A-0067-372

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 386 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: 101 W 82ND ST

Revised zip code: 10001

US EPA RCRA Type: LARGE QUANTITY GENERATOR

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: None Given

Incinerator:

Transporter:

Contact Name: FRANKLYN MURRAY

Source Type: Annual/Biennial Report update with Notification

Contact Phone: 212-460-2808

Contact Info Date: 03/23/2010

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 10000        | POUNDS      | GENERATED        | 2009 |                         |                       |

**Map Identification Number 437**



**NYSDEC Name:**

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

**CONSOLIDATED EDISON**

25 W 76TH ST

CON EDISON

25 W 76TH ST E OF COLUMBUS AVE

NEW YORK, NY

NEW YORK, NY 10023

**Facility Id: NYP004169363**

TT-Id: 740A-0075-858

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 388 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA Type: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Contact Name: TIMOTHY REGAN

Source Type: Emergency

Notification date: None Given

Incinerator:

Transporter:

Contact Phone: 917-416-5436 Contact Info Date: 05/11/2009

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 75           | POUNDS      | GENERATED        | 2009 |                         |                       |

**Map Identification Number 438**



**NYSDEC Name:**

NYSDEC Address:

**CON EDISON**

25 W 76 ST

SB 13723

NEW YORK, NY 10023

**Facility Id: NYP004629028**

TT-Id: 740A-0120-601

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 388 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: 25 W 76TH ST

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2014 |                         |                       |

**Map Identification Number 439**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
55 W 82 ST & COLUMBUS AVE  
SB14557

NEW YORK, NY 10024

**Facility Id: NYP004657466**  
TT-Id: 740A-0121-079

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 406 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: 55 W 82ND ST  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 440**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
127 W 78TH ST  
SB 13914

NEW YORK, NY 10024

**Facility Id: NYP004831182**  
TT-Id: 740A-0142-422

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 407 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2015 |                         |      |

**Map Identification Number 441**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
51 W 82 & COLUMBUS AVE  
SB14558

NEW YORK, NY 10024

**Facility Id: NYP004657474**  
TT-Id: 740A-0122-580

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 407 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: 51 W 82ND ST  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 442**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
61 W 82 ST & COLUMBUS AVE  
SB14556

NEW YORK, NY 10024

**Facility Id: NYP004657482**  
TT-Id: 740A-0121-080

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 407 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: 61 W 82ND ST  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 443**



**NYSDEC Name:**

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

**CON EDISON**

F/O 339 COLUMBUS AVE

SERVICE BOX # 51900

CON EDISON SERVICE BOX: 51900

COLUMBUS AVE N OF 75TH ST

NEW YORK, NY 10029

NEW YORK, NY 10023

**Facility Id: NYP004295259**

TT-Id: 740A-0086-663

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 416 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: IFO 339 COLUMBUS AVE

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: None Given

Incinerator:

Transporter:

Contact Name: JOSE MONTALVO

Source Type: Emergency

Contact Phone: 212-427-1331

Contact Info Date: 03/21/2013

Contact Name: JOSE MONTALVO

Source Type: Implementer

Contact Phone: 212-427-1331

Contact Info Date: 04/21/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 444**



**NYSDEC Name:**

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

**CON EDISON**

FO 338 COLUMBUS AVE NO 75 ST

CON EDISON SERVICE BOX: 51897

338 COLUMBUS AVE & 75TH ST FRONT OF

NEW YORK, NY 10023

NEW YORK, NY 10023

**Facility Id: NYP004322343**

TT-Id: 740A-0093-764

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 423 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: None Given

Incinerator:

Transporter:

Contact Name: THOMAS TEELING

Source Type: Emergency

Contact Phone: 212-460-3770

Contact Info Date: 06/23/2013

Contact Name: THOMAS TEELING

Source Type: Implementer

Contact Phone: 212-460-3770

Contact Info Date: 07/23/2013

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 250          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 445**  **NYSDEC Name:** CON EDISON  
**NYSDEC Address:** OPP SIDE 116 W 76 ST NEW YORK, NY 10024  
**Facility Id:** NYP004628335  
 TT-Id: 740A-0122-573

MAP LOCATION INFORMATION  
 Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 445 feet to the SW

ADDRESS CHANGE INFORMATION  
 Revised street: OPP 116 W 76TH ST  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 446**  **NYSDEC Name:** CON EDISON  
**NYSDEC Address:** 132 W 81ST ST NEW YORK, NY 10024  
**Facility Id:** NYP004789236  
 TT-Id: 740A-0137-147

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 456 feet to the NNW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2015 |                         |      |

Map Identification Number 447



NYSDEC Name:

NYSDEC Address:

CON EDISON

16-18 W 82 ST & COLUMBUS AV  
SB14573

NEW YORK, NY 10024

Facility Id: NYP004657292

TT-Id: 740A-0121-077

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)

Approximate distance from property: 461 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2014 |                         |      |

Map Identification Number 448



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CONSOLIDATED EDISON - SERV BOX 13735

F/O 26-28 W 76TH ST 7 COLUMBUS AVE

CON EDISON SERVICE BOX 13735

26-28 W 76TH ST E OF COLUMBUS AVE

NEW YORK, NY 10023

NEW YORK, NY 10023

Facility Id: NYP004250080

TT-Id: 740A-0081-111

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 463 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: IFO 26-28 W 76TH ST

Revised zip code: NO CHANGE

Special Note(s): The New York State Department of Environmental Conservation and the U. S. Environmental Protection Agency have reported different locations for this hazardous waste identification number. Available information for both locations is summarized below.

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: JOSE MONTALVO Source Type: Emergency Contact Phone: 212-427-1331 Contact Info Date: 03/20/2012  
 Contact Name: JOSE MONTALVO Source Type: Implementer Contact Phone: 212-427-1331 Contact Info Date: 04/19/2012

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2012 |                         |      |

**Map Identification Number 449**  **NYSDEC Name: CONSOLIDATED EDISON** **Facility Id: NYP004190013**  
 NYSDEC Address: 29 WEST 82 STREET NEW YORK, NY 10020 TT-Id: 740A-0067-486  
 EPA (RCRA) Name: CON EDISON  
 EPA (RCRA) Address: 29 W 82ND ST & BROADWAY NEW YORK, NY 10024

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 464 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: 29 W 82ND ST  
 Revised zip code: NO CHANGE

US EPA RCRA Type: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR Notification date: None Given  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: MICHAEL BETO Source Type: Emergency Contact Phone: 917-337-5519 Contact Info Date: 08/10/2009

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1500         | POUNDS      | GENERATED        | 2009 |                         |      |

**Map Identification Number 450**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
29 W 82ND ST  
SB 14561

MANHATTAN, NY 10024

**Facility Id: NYP004756003**  
TT-Id: 740A-0130-693

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 464 feet to the NE

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2015 |                         |      |

**Map Identification Number 451**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
111 W 82 ST  
SB4541

NEW YORK, NY 10024

**Facility Id: NYP004665790**  
TT-Id: 740A-0121-151

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 471 feet to the N

**ADDRESS CHANGE INFORMATION**

Revised street: 111 W 82ND ST  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 2000         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 452**  **NYSDEC Name:** CONSOLIDATED EDISON **Facility Id:** NYP004177572  
**NYSDEC Address:** 135 W. 78 ST NEW YORK, NY **TT-Id:** 740A-0067-359

**MAP LOCATION INFORMATION**  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 478 feet to the W

**ADDRESS CHANGE INFORMATION**  
 Revised street: 135 W 78TH ST  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2009 |                         |                       |

**Map Identification Number 453**  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004323036  
**NYSDEC Address:** FO 135 78 ST EO AMSTERDAM AVE NEW YORK, NY 10024 **TT-Id:** 740A-0095-446  
**EPA (RCRA) Name:** CON EDISON SERVICE BOX: 13993  
**EPA (RCRA) Address:** 135 W 78TH ST & AMSTERDAM AVE NEW YORK, NY 10024  
 FRONT OF

**MAP LOCATION INFORMATION**  
 Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 481 feet to the W

**ADDRESS CHANGE INFORMATION**  
 Revised street: IFO 135 W 78TH ST  
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 06/26/2013  
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 07/26/2013

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 2000         | POUNDS      | GENERATED        | 2013 |                         |                       |

**Map Identification Number 454**



**NYSDEC Name:**

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

**CON EDISON**

130 W 80TH ST  
SB14262

CON EDISON SERVICE BOX: 14262

130 W 80TH ST FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

**Facility Id: NYP004461216**

TT-Id: 740A-0109-778

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 483 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: None Given

Incinerator:

Transporter:

Contact Name: THOMAS TEELING

Source Type: Emergency

Contact Phone: 212-460-3770

Contact Info Date: 03/07/2014

Contact Name: THOMAS TEELING

Source Type: Implementer

Contact Phone: 212-460-3770

Contact Info Date: 04/07/2014

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 455**



**NYSDEC Name:**

NYSDEC Address:

**CONSOLIDATED EDISON**

W 78 ST BETW COLUMBUS/AMSTERDAM  
OPPOSITE 137

NEW YORK, NY

**Facility Id: NYP004187662**

TT-Id: 740A-0067-120

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (4)

Approximate distance from property: 489 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1500         | POUNDS      | GENERATED        | 2009 |                         |      |

**Map Identification Number 456**  **NYSDEC Name:** CONSOLIDATED EDISON **Facility Id: NYP004177911**  
**NYSDEC Address:** 23 W 82 ST NEW YORK, NY **TT-Id: 740A-0067-375**

**MAP LOCATION INFORMATION**  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 496 feet to the NE

**ADDRESS CHANGE INFORMATION**  
 Revised street: 23 W 82ND ST  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2009 |                         |      |

**Map Identification Number 457**  **NYSDEC Name:** CON EDISON **Facility Id: NYP004735023**  
**NYSDEC Address:** 21-23 W 82 ST NEW YORK, NY 10024 **TT-Id: 740A-0131-586**  
 SB 14562

**MAP LOCATION INFORMATION**  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 496 feet to the NE

**ADDRESS CHANGE INFORMATION**  
 Revised street: 21 W 82ND ST  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2015 |                         |      |

**Map Identification Number 458**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**

FO 140 N 79 ST EO AMSTERDAM AVE  
CON EDISON SERVICE BOX: 14126  
145 W 79TH ST & AMSTERDAM AVE  
FRONT OF

NEW YORK, NY 10024  
NEW YORK, NY 10024

**Facility Id: NYP004322954**

TT-Id: 740A-0095-466

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 514 feet to the WNW

**ADDRESS CHANGE INFORMATION**

Revised street: IFO 140 W 79TH ST  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: None Given

Incinerator:  
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency  
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/25/2013  
Contact Phone: 212-460-3770 Contact Info Date: 07/25/2013

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 250          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 459**



**EPA (RCRA) Name:**

EPA (RCRA) Address:  
NYSDEC Name:  
NYSDEC Address:

**CON EDISON SERVICE BOX 13735**

26-28 W 76TH ST E OF COLUMBUS AVE  
CONSOLIDATED EDISON - SERV BOX 13735  
F/O 26-28 W 76TH ST 7 COLUMBUS AVE

NEW YORK, NY 10023  
NEW YORK, NY 10023

**Facility Id: NYP004250080**

TT-Id: 740A-0081-220

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (2)  
Approximate distance from property: 516 feet to the S

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Special Note(s): The New York State Department of Environmental Conservation and the U. S. Environmental Protection Agency have reported different locations for this hazardous waste identification number. Available information for both locations is summarized below.

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: JOSE MONTALVO Source Type: Emergency Contact Phone: 212-427-1331 Contact Info Date: 03/20/2012  
 Contact Name: JOSE MONTALVO Source Type: Implementer Contact Phone: 212-427-1331 Contact Info Date: 04/19/2012

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2012 |                         |      |

**Map Identification Number 460**  **NYSDEC Name:** 6-16 WEST 77TH STREET CORP **Facility Id:** NYR000066894  
 NYSDEC Address: 6-16 W 77TH ST NEW YORK, NY 10024 TT-Id: 740A-0024-511  
 EPA (RCRA) Name: 6-16 WEST 77TH STREET CORP  
 EPA (RCRA) Address: 6-16 W 77TH ST NEW YORK, NY 10024

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 518 feet to the S

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: 02/11/1999  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: SCOTT MILLER Source Type: Implementer Contact Phone: 516-867-6016 Contact Info Date: 01/01/2007  
 Contact Name: SCOTT J MILLER Source Type: Notification Contact Phone: 516-867-6016 Contact Info Date: 02/11/1999

Historically listed as the following USEPA RCRA Generator Size(s) as well:  
 SMALL QUANTITY GENERATOR

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 800          | POUNDS      | GENERATED        | 1999 |                         |      |

**Map Identification Number 461**



**NYSDEC Name:**

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

**CON EDISON**

F/O 20TH W 76TH ST  
SB13736

CON EDISON SERVICE BOX: 13736

20 W 76TH ST & COLUMBUS AVE

NEW YORK, NY 10023

NEW YORK, NY 10023

**Facility Id: NYP004418547**

TT-Id: 740A-0104-706

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 524 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: IFO 20 W 76TH ST

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: None Given

Incinerator:

Transporter:

Contact Name: THOMAS TEELING

Source Type: Emergency

Contact Phone: 212-460-3770

Contact Info Date: 01/14/2014

Contact Name: THOMAS TEELING

Source Type: Implementer

Contact Phone: 212-460-3770

Contact Info Date: 02/14/2014

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 300          | POUNDS      | GENERATED        | 2014 |                         |                       |

**Map Identification Number 462**



**NYSDEC Name:**

NYSDEC Address:

**CON EDISON**

26 W 76 ST  
SERVICE BOX # 13735

NEW YORK, NY 10023

**Facility Id: NYP004665758**

TT-Id: 740A-0121-148

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 526 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: 26 W 76TH ST

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 463**



**NYSDEC Name:**

NYSDEC Address:  
 EPA (RCRA) Name:  
 EPA (RCRA) Address:

**CON EDISON**

FO 9-11 W 81 ST EO COLUMBUS AVE  
 CON EDISON SERVICE BOX: 14420  
 9-11 W 81ST ST & COLUMBUS AVE FRONT  
 OF

NEW YORK, NY 10024  
 NEW YORK, NY 10024

**Facility Id: NYP004322947**

TT-Id: 740A-0095-479

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 529 feet to the E

**ADDRESS CHANGE INFORMATION**

Revised street: IFO 9-11 W 81ST ST  
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:  
 Storer: Treatment facility:

Contact Name: THOMAS TEELING Source Type: Emergency  
 Contact Name: THOMAS TEELING Source Type: Implementer

Notification date: None Given

Incinerator:  
 Transporter:

Contact Phone: 212-460-3770 Contact Info Date: 06/25/2013  
 Contact Phone: 212-460-3770 Contact Info Date: 07/25/2013

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 464**



**NYSDEC Name:**

NYSDEC Address:  
 EPA (RCRA) Name:  
 EPA (RCRA) Address:

**CON EDISON**

47-49 75TH ST & CPW  
 SB13556  
 CON EDISON SERVICE BOX: 13556  
 47-49 75TH ST & CENTRAL PARK W

NEW YORK, NY 10023  
 NEW YORK, NY 10023

**Facility Id: NYP004415584**

TT-Id: 740A-0102-987

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (2)  
 Approximate distance from property: 531 feet to the SSW

**ADDRESS CHANGE INFORMATION**

Revised street: 47-49 W 75TH ST / CENTRAL PARK W  
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 01/09/2014  
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 02/09/2014

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 200          | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 465**  **NYSDEC Name: CON EDISON** **Facility Id: NYP004322962**  
 NYSDEC Address: FO 145 W 79 ST & AMSTERDAM AVE NEW YORK, NY 10024 TT-Id: 740A-0093-786  
 EPA (RCRA) Name: CON EDISON SERVICE BOX: 14127  
 EPA (RCRA) Address: 145 W 79TH ST & AMSTERDAM AVE NEW YORK, NY 10024  
 FRONT OF

MAP LOCATION INFORMATION  
 Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 534 feet to the WNW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 06/25/2013  
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 07/25/2013

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 466**  **NYSDEC Name:** **CONSOLIDATED EDISON** **Facility Id:** **NYP004177580**  
**NYSDEC Address:** **OPP 141 W. 78ST** **NEW YORK, NY** **TT-Id:** **740A-0068-239**

**MAP LOCATION INFORMATION**  
 Site location mapped by: **MANUAL MAPPING (3)**  
 Approximate distance from property: **538 feet to the W**

**ADDRESS CHANGE INFORMATION**  
 Revised street: **OPP 141 W 78TH ST**  
 Revised zip code: **NO CHANGE**

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2009 |                         |                       |

**Map Identification Number 467**  **NYSDEC Name:** **CONSOLIDATED EDISON** **Facility Id:** **NYP004188868**  
**NYSDEC Address:** **43 WEST 75TH ST** **NEW YORK, NY 10020** **TT-Id:** **740A-0066-937**  
**EPA (RCRA) Name:** **CON EDISON**  
**EPA (RCRA) Address:** **W 75TH ST & COLUMBUS AVE** **NEW YORK, NY 10023**

**MAP LOCATION INFORMATION**  
 Site location mapped by: **PARCEL MAPPING (1)**  
 Approximate distance from property: **545 feet to the SSW**

**ADDRESS CHANGE INFORMATION**  
 Revised street: **NO CHANGE**  
 Revised zip code: **NO CHANGE**

Special Note(s): The New York State Department of Environmental Conservation and the U. S. Environmental Protection Agency have reported different locations for this hazardous waste identification number. Available information for both locations is summarized below.

US EPA RCRA Type: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR** Notification date: **None Given**  
 Land Disposal: **Receives offsite waste:** Incinerator:  
 Storer: **Treatment facility:** Transporter:  
 Contact Name: **ANTONIO DELGADO** Source Type: **Emergency** Contact Phone: **212-580-8383** Contact Info Date: **07/30/2009**

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1500         | POUNDS      | GENERATED        | 2009 |                         |      |

**Map Identification Number 468**  **NYSDEC Name:** CONSOLIDATED EDISON **Facility Id:** NYP004161949  
**NYSDEC Address:** 78TH & 8TH AVE NEW YORK, NY 10003 **TT-Id:** 740A-0065-096  
**EPA (RCRA) Name:** CON EDISON  
**EPA (RCRA) Address:** 78 8TH AVE NEW YORK, NY 10023

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (5)  
 Approximate distance from property: 548 feet to the SE

**ADDRESS CHANGE INFORMATION**

Revised street: W 78TH ST / 8TH AVE  
 Revised zip code: NO CHANGE

**Special Note(s):** The New York State Department of Environmental Conservation and the U. S. Environmental Protection Agency have reported different locations for this hazardous waste identification number. Available information for both locations is summarized below.

**US EPA RCRA Type:** CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR **Notification date:** None Given  
**Land Disposal:** Receives offsite waste: **Incinerator:**  
**Storer:** Treatment facility: **Transporter:**  
**Contact Name:** DAVID DUKE **Source Type:** Emergency **Contact Phone:** 917-559-8971 **Contact Info Date:** 10/21/2008

**NYS DEC Manifested Waste Summary:**  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 125          | GALLONS     | GENERATED        | 2008 |                         |      |

**Map Identification Number 469**  **NYSDEC Name:** CONSOLIDATED EDISON **Facility Id:** NYP004166534  
**NYSDEC Address:** 41 W 75TH ST NEW YORK, NY 10009 **TT-Id:** 740A-0066-551  
**EPA (RCRA) Name:** CON EDISON  
**EPA (RCRA) Address:** 41 W 75TH ST NEW YORK, NY 10023

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 551 feet to the SSW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA Type: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR** Notification date: None Given  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: **TIMOTHY REGAN** Source Type: Emergency Contact Phone: 917-416-5436 Contact Info Date: 04/08/2009

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 400          | POUNDS      | GENERATED        | 2009 |                         |                       |

**Map Identification Number 470**  **NYSDEC Name: CON EDISON** **Facility Id: NYP004842635**  
 NYSDEC Address: 140 W 80TH ST NEW YORK, NY TT-Id: 740A-0142-561  
 SB 14261

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 558 feet to the NW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2015 |                         |                       |

**Map Identification Number 471**  **NYSDEC Name: CON ED** **Facility Id: NYP004853350**  
 NYSDEC Address: 140 W 80TH ST NEW YORK, NY 10024 TT-Id: 740A-0142-745  
 SB 14261

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 558 feet to the NW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2015 |                         |      |

**Map Identification Number 472**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
34 W 83RD ST  
SB14674

NEW YORK, NY 10024

**Facility Id: NYP004652006**  
TT-Id: 740A-0119-120

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 563 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 473**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
143-144 W 78 ST  
SB 14003

NEW YORK, NY 10024

**Facility Id: NYP004624887**  
TT-Id: 740A-0122-574

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (4)  
Approximate distance from property: 563 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: 143-144 W 78TH ST  
Revised zip code: NO CHANGE

This facility has been deleted from the reported data. Data reflects last reported information.

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|

NONE No hazardous waste activity reported by NYS up to 4/22/2016.

**Map Identification Number 474**



**NYSDEC Name:**

NYSDEC Address:

**CON EDISON**

143-144 W 78 ST  
SB 14003

NEW YORK, NY 10024

**Facility Id: NYP004629697**

TT-Id: 740A-0122-576

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (4)

Approximate distance from property: 563 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: 143-144 W 78TH ST

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|

|      |      |      |        |           |      |  |  |
|------|------|------|--------|-----------|------|--|--|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 |  |  |
|------|------|------|--------|-----------|------|--|--|

**Map Identification Number 475**



**NYSDEC Name:**

NYSDEC Address:

**CONSOLIDATED EDISON**

211 CENTRAL PARK WEST

NEW YORK, NY 10024

**Facility Id: NYP000927871**

TT-Id: 740A-0024-497

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)

Approximate distance from property: 567 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION                                                    | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|----------------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| B003       | Petroleum oil or other liquid containing 500 ppm or greater of PCBs. | 1172         | KILOGRAMS   | GENERATED        | 1996 |                         |                       |

Map Identification Number 476



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CONSOLIDATED EDISON

V8223-CENTRAL PARK WEST

V # 8223

211 CENTRAL PARK WEST

NEW YORK, NY

NEW YORK CITY, NY 10024

Facility Id: NYP004041976

TT-Id: 740A-0026-576

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)

Approximate distance from property: 567 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: 211 CENTRAL PARK WEST

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: None Given

Incinerator:

Transporter:

Contact Name: ANTHONY DRUMMINGS

Source Type: Implementer

Contact Phone: 212-460-3770

Contact Info Date: 01/03/2001

Contact Name: ANTHONY DRUMMINGS

Source Type: Annual/Biennial Report

Contact Phone: 212-460-3770

Contact Info Date: 01/01/2001

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION   | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|---------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| B008       | Unknown waste type. | 1182         | KILOGRAMS   | GENERATED        | 1999 |                         |                       |

**Map Identification Number 477**  **NYSDEC Name:** **CONSOLIDATED EDISON** **Facility Id: NYP004057626**  
**NYSDEC Address:** V8223-211 CENTRAL PARK W NEW YORK, NY TT-Id: 740A-0024-600

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (2)  
 Approximate distance from property: 567 feet to the ENE

**ADDRESS CHANGE INFORMATION**

Revised street: 211 CENTRAL PARK WEST  
 Revised zip code: 10024

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION                                                             | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|------|
| B002       | Petroleum oil or other liquid containing 50 ppm < PCBs < 500 ppm              | 1200         | KILOGRAMS   | GENERATED        | 2000 |                         |      |
| B007       | Other PCB Wastes including contaminated soil, solids, sludges, clothing, etc. | 864          | KILOGRAMS   | GENERATED        | 2000 |                         |      |

**Map Identification Number 478**  **NYSDEC Name:** **CON EDISON** **Facility Id: NYP004648887**  
**NYSDEC Address:** 219 CENTRAL PARK WEST NEW YORK, NY 10029 TT-Id: 740A-0118-622  
 M59218

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (2)  
 Approximate distance from property: 567 feet to the ENE

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1500         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 479**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
98 W 83 ST  
SB14675

NEW YORK, NY 10024

**Facility Id: NYP004631966**  
TT-Id: 740A-0119-415

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (4)  
Approximate distance from property: 572 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: 98 W 83RD ST  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 480**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
147-145 W 78 ST  
SB 14002

NEW YORK, NY 10024

**Facility Id: NYP004629689**  
TT-Id: 740A-0122-575

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)  
Approximate distance from property: 587 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: 145-147 W 78TH ST  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 481**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
148 WEST 77TH STREET

NEW YORK, NY 10024

**Facility Id: NYP00466665**  
TT-Id: 740A-0121-162

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 592 feet to the WSW

**ADDRESS CHANGE INFORMATION**

Revised street: 148 W 77TH ST  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 3000         | POUNDS      | GENERATED        | 2014 |                         |                       |

**Map Identification Number 482**



**NYSDEC Name:**  
NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**  
NEC 83 ST & COLUMBUS AVE  
CON EDISON SERVICE BOX: 51615  
COLUMBUS AVE & 83RD ST NW COR

NEW YORK, NY 10028

NEW YORK, NY 10028

**Facility Id: NYP004323051**  
TT-Id: 740A-0096-793

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 600 feet to the NNE

**ADDRESS CHANGE INFORMATION**

Revised street: W 83RD ST / COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: None Given

Incinerator:  
Transporter:

Contact Name: THOMAS TEELING  
Contact Name: THOMAS TEELING  
Source Type: Emergency  
Source Type: Implementer

Contact Phone: 212-460-3770  
Contact Phone: 212-460-3770  
Contact Info Date: 06/26/2013  
Contact Info Date: 07/26/2013

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2013 |                         |                       |

**Map Identification Number 483**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
NWC 83 & COLUMBUS AV  
V5275

NEW YORK, NY 10024

**Facility Id: NYP004748836**  
TT-Id: 740A-0132-252

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 600 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: W 83RD ST / COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 2000         | POUNDS      | GENERATED        | 2015 |                         |                       |

**Map Identification Number 484**



**NYSDEC Name:**  
NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**  
W 75TH ST & COLUMBUS AVE  
CON EDISON  
W 75TH ST & COLUMBUS AVE

NEW YORK, NY 10023

NEW YORK, NY 10023

**Facility Id: NYP004186664**  
TT-Id: 740A-0071-989

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 600 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: W 75TH ST / COLUMBUS AVE  
Revised zip code: NO CHANGE

US EPA RCRA Type: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

Notification date: None Given

Land Disposal: Receives offsite waste:

Incinerator:

Storer: Treatment facility:

Transporter:

Contact Name: PATRICK HANLEY Source Type: Emergency

Contact Phone: 347-203-1475 Contact Info Date: 07/27/2009

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION                                                     | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-----------------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| NONE       | Site reported by US EPA. No hazardous waste activity reported by NYS. |              |             |                  |      |                         |                       |

**Map Identification Number 485**



**EPA (RCRA) Name:**

EPA (RCRA) Address:

NYSDEC Name:

NYSDEC Address:

**CON EDISON**

W 75TH ST & COLUMBUS AVE

CONSOLIDATED EDISON

43 WEST 75TH ST

NEW YORK, NY 10023

NEW YORK, NY 10020

**Facility Id: NYP004188868**

TT-Id: 740A-0074-747

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 600 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: W 75TH ST / COLUMBUS AVE

Revised zip code: NO CHANGE

Special Note(s): The New York State Department of Environmental Conservation and the U. S. Environmental Protection Agency have reported different locations for this hazardous waste identification number. Available information for both locations is summarized below.

US EPA RCRA Type: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

Notification date: None Given

Land Disposal: Receives offsite waste:

Incinerator:

Storer: Treatment facility:

Transporter:

Contact Name: ANTONIO DELGADO Source Type: Emergency

Contact Phone: 212-580-8383 Contact Info Date: 07/30/2009

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1500         | POUNDS      | GENERATED        | 2009 |                         |      |

**Map Identification Number 486**



**NYSDEC Name:**

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

**CONSOLIDATED EDISON**

W 75TH STREET AND COLUMBUS AVE

CON EDISON - SERVICE BOX 13563

W 75TH STREET AND COLUMBUS AVE

NEW YORK, NY 10023

NEW YORK, NY 10023

**Facility Id: NYP004191227**

TT-Id: 740A-0066-954

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 600 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: W 75TH ST / COLUMBUS AVE

Revised zip code: 10020

US EPA RCRA Type: LARGE QUANTITY GENERATOR

Notification date: None Given

Land Disposal: Receives offsite waste:

Incinerator:

Storer: Treatment facility:

Transporter:

Contact Name: FRANKLYN MURRAY Source Type: Annual/Biennial Report update with Notification

Contact Phone: 212-460-2808 Contact Info Date: 03/23/2010

Contact Name: ANTHONY BUDA Source Type: Emergency

Contact Phone: 917-440-1809 Contact Info Date: 08/17/2009

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 2500         | POUNDS      | GENERATED        | 2009 |                         |      |

**Map Identification Number 487**  **NYSDEC Name:** CONSOLIDATED EDISON **Facility Id:** NYP004253407  
**NYSDEC Address:** S/W/C W 75 ST & COLUMBUS AVE NEW YORK, NY 10023 **TT-Id:** 740A-0082-717

**MAP LOCATION INFORMATION**  
 Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 600 feet to the SW

**ADDRESS CHANGE INFORMATION**  
 Revised street: W 75TH ST / COLUMBUS AVE  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2012 |                         |      |

**Map Identification Number 488**  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004272118  
**NYSDEC Address:** SWC W 75 & COLUMBUS AVE NEW YORK, NY 10023 **TT-Id:** 740A-0084-281

**EPA (RCRA) Name:** CON EDISON SERVICE BOX: 30578  
**EPA (RCRA) Address:** W 75TH ST & COLUMBUS AVE SW NEW YORK, NY 10023  
 COR

**MAP LOCATION INFORMATION**  
 Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 600 feet to the SW

**ADDRESS CHANGE INFORMATION**  
 Revised street: W 75TH ST / COLUMBUS AVE  
 Revised zip code: NO CHANGE

US EPA RCRA Type: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR** Notification date: None Given  
 Land Disposal: Receives offsite waste: Incinerator:  
 Storer: Treatment facility: Transporter:  
 Contact Name: **JOSE MONTALVO** Source Type: Emergency Contact Phone: 212-427-1331 Contact Info Date: 10/04/2012

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2012 |                         |      |

**Map Identification Number 489**  **NYSDEC Name: CON EDISON** **Facility Id: NYP004274387**  
 NYSDEC Address: S/W/C W 75 ST & COLUMBUS AVVE NEW YORK, NY 10023 TT-Id: 740A-0084-267

MAP LOCATION INFORMATION  
 Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 600 feet to the SW

ADDRESS CHANGE INFORMATION  
 Revised street: W 75TH ST / COLUMBUS AVE  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2012 |                         |      |

**Map Identification Number 490**  **NYSDEC Name: CONSOLIDATED EDISON** **Facility Id: NYP004177655**  
 NYSDEC Address: 146 WEST 80 STREET MANHATTAN, NY 10020 TT-Id: 740A-0067-364

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 617 feet to the NW

ADDRESS CHANGE INFORMATION  
 Revised street: 146 W 80TH ST  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2009 |                         |                       |

Map Identification Number 491



NYSDEC Name:

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

NYC BOARD OF EDUCATION

160 WEST 78TH STREET  
NYC DEPT OF EDUCATION – PS 87M  
160 W 78TH ST

NEW YORK, NY 10024  
NEW YORK, NY 10024

Facility Id: NYR00009456

TT-Id: 740A-0031-157

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 622 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA Type: SMALL QUANTITY GENERATOR

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: 07/27/1995  
Incinerator:  
Transporter:

Contact Name: ROBERT GUASTA Source Type: Implementer  
Contact Name: ALEXANDER LEMPERT Source Type: Notification

Contact Phone: 718-349-5590 Contact Info Date: 01/01/2007  
Contact Phone: 718-472-8501 Contact Info Date: 05/14/2013

Historically listed as the following USEPA RCRA Generator Size(s) as well:  
CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE                                                            | WASTE DESCRIPTION                                                             | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|-----------------------------------------------------------------------|-------------------------------------------------------------------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| B007                                                                  | Other PCB Wastes including contaminated soil, solids, sludges, clothing, etc. | 75           | KILOGRAMS   | GENERATED        | 2013 |                         |                       |
| More than one waste code was reported for the following waste amount: |                                                                               | 4            | KILOGRAMS   | GENERATED        | 2012 |                         |                       |
| B002                                                                  | Petroleum oil or other liquid containing 50 ppm < PCBs < 500 ppm              |              |             |                  |      |                         |                       |
| B007                                                                  | Other PCB Wastes including contaminated soil, solids, sludges, clothing, etc. |              |             |                  |      |                         |                       |
| D008                                                                  | Lead                                                                          | 200          | POUNDS      | GENERATED        | 1995 |                         |                       |

**Map Identification Number 492**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**

FO 150 W 79 ST & AMSTERDAM AVE  
CON EDISON SERVICE BOX: 14134  
150-160 W 79TH ST & AMSTERDAM AVE  
FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

**Facility Id: NYP004322970**

TT-Id: 740A-0093-787

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 626 feet to the WNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: None Given

Incinerator:  
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency  
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/25/2013  
Contact Phone: 212-460-3770 Contact Info Date: 07/25/2013

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 250          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 493**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**

FO 150 W 79 ST & AMSTERDAM AVE  
CON EDISON SERVICE BOX: 14135  
150 W 79TH ST & AMSTERDAM AVE  
FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

**Facility Id: NYP004322996**

TT-Id: 740A-0093-789

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 626 feet to the WNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: None Given

Incinerator:  
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency  
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/25/2013  
Contact Phone: 212-460-3770 Contact Info Date: 07/25/2013

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 250          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 494**  **NYSDEC Name:** CON EDISON  
**NYSDEC Address:** 151 W 78 ST NEW YORK, NY 10024 **Facility Id:** NYP004629713  
 SB 14001 TT-Id: 740A-0120-612

**MAP LOCATION INFORMATION**  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 627 feet to the W

**ADDRESS CHANGE INFORMATION**  
 Revised street: 151 W 78TH ST  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:  
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 495**  **NYSDEC Name:** CON EDISON  
**NYSDEC Address:** F/O 35 W 75 ST NEW YORK, NY 10023 **Facility Id:** NYP004633319  
 SB13558 TT-Id: 740A-0120-686

**MAP LOCATION INFORMATION**  
 Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 634 feet to the SSW

**ADDRESS CHANGE INFORMATION**  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 496**



**NYSDEC Name:**

NYSDEC Address:

**CON EDISON**

OPP 5 W 82 ST & COLUMBUS AV  
SB14575

NEW YORK, NY 10024

**Facility Id: NYP004657243**

TT-Id: 740A-0121-076

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 641 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 497**



**NYSDEC Name:**

NYSDEC Address:

**CON EDISON**

OPP 5 W 82ND ST & COLUMBUS AVE  
SB 14576

NEW YORK, NY 10024

**Facility Id: NYP004667259**

TT-Id: 740A-0121-166

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 641 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 2000         | POUNDS      | GENERATED        | 2014 |                         |                       |

**Map Identification Number 498**



**NYSDEC Name:**

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

**CON EDISON**

FO 152 W 78 ST  
SB #14001

CON EDISON SERVICE BOX: 14001

152 W 78TH ST FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

**Facility Id: NYP004331971**

TT-Id: 740A-0093-981

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 646 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Storer:

Contact Name: RICARDO CARTY

Contact Name: RICARDO CARTY

Receives offsite waste:

Treatment facility:

Source Type: Emergency

Source Type: Implementer

Notification date: None Given

Incinerator:

Transporter:

Contact Phone: 646-772-3407

Contact Phone: 646-772-3407

Contact Info Date: 07/19/2013

Contact Info Date: 08/19/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008       | Lead              | 500          | POUNDS      | GENERATED        | 2013 |                         |                       |

**Map Identification Number 499**



**NYSDEC Name:**

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

**CON EDISON**

FO 148 W 78 ST

SB #14002

CON EDISON SERVICE BOX: 14002

148 W 78TH ST FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

**Facility Id: NYP004331989**

TT-Id: 740A-0093-982

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 646 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: 148 W 78TH ST

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: None Given

Incinerator:

Transporter:

Contact Name: RICARDO CARTY

Source Type: Emergency

Contact Phone: 646-772-3407

Contact Info Date: 07/19/2013

Contact Name: RICARDO CARTY

Source Type: Implementer

Contact Phone: 646-772-3407

Contact Info Date: 08/19/2013

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 300          | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 500**



**NYSDEC Name:**

NYSDEC Address:

**CONSOLIDATED EDISON**

FRONT OF 104 WEST 75 STREET

NEW YORK, NY 10020

**Facility Id: NYP004187613**

TT-Id: 740A-0067-461

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 647 feet to the SW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 400          | POUNDS      | GENERATED        | 2009 |                         |      |

**Map Identification Number 501**



**NYSDEC Name:**  
NYSDEC Address:

**CON EDISON**  
18 W 83 ST & COLUMBUS  
SB14720

NEW YORK, NY 10024

**Facility Id: NYP004636353**  
TT-Id: 740A-0120-728

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 649 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: 18 W 83RD ST  
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 2000         | POUNDS      | GENERATED        | 2014 |                         |      |

**Map Identification Number 502**



**NYSDEC Name:**  
NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CON EDISON**  
FO 109 W 83 ST & AMSTERDAM AVE  
CON EDISON SERVICE BOX: 14690  
109 W 83RD ST & AMSTERDAM AVE  
FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

**Facility Id: NYP004323044**  
TT-Id: 740A-0093-790

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 654 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:  
Storer: Treatment facility:

Notification date: None Given

Incinerator:  
Transporter:

Contact Name: THOMAS TEELING  
Contact Name: THOMAS TEELING  
Source Type: Emergency  
Source Type: Implementer

Contact Phone: 212-460-3770  
Contact Phone: 212-460-3770  
Contact Info Date: 06/26/2013  
Contact Info Date: 07/26/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2013 |                         |      |

**Map Identification Number 503**



**NYSDEC Name:**

NYSDEC Address:  
EPA (RCRA) Name:  
EPA (RCRA) Address:

**CONSOLIDATED EDISON**

SB 13554 F/O 106 W 75TH ST  
CON EDISON  
W 75TH ST & AMSTERDAM AVE

NEW YORK, NY

NEW YORK, NY 10023

**Facility Id: NYP004189908**

TT-Id: 740A-0068-288

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 654 feet to the SW

**ADDRESS CHANGE INFORMATION**

Revised street: IFO 106 W 75TH ST  
Revised zip code: NO CHANGE

Special Note(s): The New York State Department of Environmental Conservation and the U. S. Environmental Protection Agency have reported different locations for this hazardous waste identification number. Available information for both locations is summarized below.

US EPA RCRA Type: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

Notification date: None Given

Land Disposal: Receives offsite waste:

Incinerator:

Storer: Treatment facility:

Transporter:

Contact Name: ANTHONY BUDA

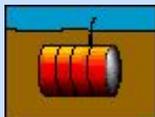
Source Type: Emergency

Contact Phone: 917-440-1809 Contact Info Date: 08/07/2009

**NYS DEC Manifested Waste Summary:**

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008       | Lead              | 1000         | POUNDS      | GENERATED        | 2009 |                         |      |



***NO CHEMICAL STORAGE FACILITIES IDENTIFIED WITHIN 1/8 MILE SEARCH RADIUS***



***NO HISTORIC UTILITY SITES IDENTIFIED WITHIN 1/8 MILE SEARCH RADIUS***



***NO HAZARDOUS SUBSTANCE WASTE DISPOSAL SITES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS***



***NO TOXIC AIR, LAND AND WATER RELEASES IDENTIFIED WITHIN 1/8 MILE SEARCH RADIUS***



***NO WASTEWATER DISCHARGES IDENTIFIED WITHIN 1/8 MILE SEARCH RADIUS***



### **AIR DISCHARGE FACILITIES IDENTIFIED WITHIN THE 1/8 MILE SEARCH RADIUS**

PLEASE NOTE: \* Compass directions can vary substantially for sites located very close to the subject property address.

#### **Map Identification Number 504**



#### **BERESFORD APARTMENTS**

211 CENTRAL PARK W

**Facility Id: 36061N1208**

NEW YORK CITY, NY 10024

**State-county CDS Id: 36061N1208**

State-county NED id:  
TT-ID: 900A-0003-582

#### MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 594 feet to the ENE

#### ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

CDS-ID: N1208 NED-ID: None Given

Plant Phone #1: (212)986-0001 Plant Phone #2: None Given

Operating Status: OPERATING

EPA Classification:

State Classification: POTENTIAL EMISSIONS ARE BELOW ALL APPLICABLE MAJOR SOURCE THRESHOLDS IF AND ONLY IF SOURCE COMPLIES WITH FEDERALLY ENFORCEABLE REGULATIONS OR LIMITATIONS

EPA-ID: None Given

FINDS-ID: None Given

EPA Plant Compliance Status:

State Plant Compliance Status: IN COMPLIANCE – CERTIFICATION

#### AIR PROGRAM INFORMATION

Regulatory Air Program: TITLE V PERMITS

Program Status: OPERATING

#### POLLUTANT INFORMATION

Pollutant: NITROGEN DIOXIDE

State Pollutant Compliance for this pollutant: IN COMPLIANCE – CERTIFICATION



***NO CIVIL & ADMINISTRATIVE ENFORCEMENT DOCKET FACILITIES IDENTIFIED WITHIN THE 1/8 MILE SEARCH RADIUS***



***NO NYC ENVIRONMENTAL QUALITY REVIEW REQUIREMENTS – "E" DESIGNATION SITES IDENTIFIED WITHIN 250 FT SEARCH RADIUS***

U.S. EPA EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) SPILLS  
AT THE LOCATION OR POTENTIALLY AT THE LOCATION OF  
American Museum of Natural History  
New York, NY 10024

\* Any ERNS Spills listed below are NOT mapped in this report \*

ONSITE ERNS (A count of these spills can be found in the distance interval table):  
THIS SITE IS NOT FOUND IN THE ERNS DATABASE

POTENTIALLY ONSITE ERNS:  
THIS SITE IS NOT FOUND IN THE ERNS DATABASE

Unmappable facilities for 'New York' County

NPL/CERCLIS/NYSDEC Inactive Haz. Waste or Reg. Qual. Sites

| FACILITY ID  | FACILITY NAME                   | STREET                                   | CITY      | ZIP     |
|--------------|---------------------------------|------------------------------------------|-----------|---------|
| 231006       | ROUTE 9A RECONSTRUCTION PROJECT | ROUTE 9A BETWEEN BATTERY PK AND 59TH ST. | MANHATTAN | UNKNOWN |
| NYD980531578 | LEROY SHOT & LEAD WORKS         | UNKNOWN                                  | NEW YORK  | UNKNOWN |

Solid Waste Facilities

| FACILITY ID   | FACILITY NAME     | STREET                      | CITY                 | ZIP                |
|---------------|-------------------|-----------------------------|----------------------|--------------------|
| 31D01         | CENTRAL PARK DEMO |                             |                      | UNKNOWN            |
| 31D02         | PENN CENTRAL DEMO |                             |                      | UNKNOWN            |
| 31T06         | N.Y. CARTING T.S. |                             |                      | UNKNOWN            |
| NY00000002077 | PENN CENTRAL DEMO | WEST 79TH STREET<br>UNKNOWN | MANHATTAN<br>UNKNOWN | UNKNOWN<br>UNKNOWN |

Hazardous Spills - TANK TEST FAILURES - Active

| FACILITY ID | FACILITY NAME     | STREET      | CITY      | ZIP     |
|-------------|-------------------|-------------|-----------|---------|
| 1108592     | 500 ACE AVE - TTF | 500 ACE AVE | MANHATTEN | UNKNOWN |

Hazardous Spills - MISC. SPILL CAUSES - Active

| FACILITY ID | FACILITY NAME           | STREET                      | CITY                    | ZIP     |
|-------------|-------------------------|-----------------------------|-------------------------|---------|
| 1509838     | HUDSON RIVER            | 79TH STREET AND 95TH STREET | MANHATTAN               | UNKNOWN |
| 1501141     | BUILDING D              | 75-77 PARK WEST             | MANHATTAN               | UNKNOWN |
| 1412180     | CON ED TUNNEL           | MANHATTAN SIDE TUNNEL       | MANHATTAN               | UNKNOWN |
| 9930008     | VARIOUS LOCATIONS DRUMS | DRUMS VARIOUS LOCATIONS     | NEW YORK CITY (5 BOROS) | UNKNOWN |

Hazardous Spills - TANK FAILURES - Closed

| FACILITY ID | FACILITY NAME           | STREET                  | CITY      | ZIP     |
|-------------|-------------------------|-------------------------|-----------|---------|
| 9306782     | W. 179TH ST & TRANSV RD | W. 179TH ST & TRANSV RD | MANHATTAN | UNKNOWN |

Hazardous Spills - TANK TEST FAILURES - Closed

| FACILITY ID | FACILITY NAME                 | STREET                    | CITY      | ZIP     |
|-------------|-------------------------------|---------------------------|-----------|---------|
| 9507179     | 79 STREET TRANSVERSE DPR -DDC | 79 STREET TRANSVERSE ROAD | MANHATTAN | UNKNOWN |
| 9001811     | PIER #192                     | PORT AUTHORITY PIER #192  | NEW YORK  | UNKNOWN |

Hazardous Spills - UNKNOWN CAUSE OR OTHER CAUSES - Closed

| FACILITY ID | FACILITY NAME                   | STREET                    | CITY                   | ZIP     |
|-------------|---------------------------------|---------------------------|------------------------|---------|
| 1410483     | NEW YORK COUNTY EM. RES.        | ONE HUNTERS POINT PLAZA   |                        | UNKNOWN |
| 0209904     | VARIOUS DEP -BWSO SITES         | MISC.                     | BRONX/QUEENS/MANHATTAN | UNKNOWN |
| 1309057     | DRILL - VESSEL CHEMICAL PIONEER | DRILL - IN HUDSON BAY     | DRILL - UNKNOWN        | UNKNOWN |
| 9909356     | MANHOLE 42241                   | CENTER ISLAND & PARK RD   | MANHATTAN              | UNKNOWN |
| 9804732     | WESTSIDE HIGHWAY                | WESTSIDE HIGHWAY          | MANHATTAN              | UNKNOWN |
| 9601892     | 79 STREET TRANSVERSE DPR -DDC   | 79 STREET TRANSVERSE ROAD | MANHATTAN              | UNKNOWN |
| 9503001     | 57TH ST & 72ND ST               | 57TH ST & 72ND ST         | MANHATTAN              | UNKNOWN |
| 9413538     | STERLING RD & UNION PK RD       | STERLING RD & UNION PK RD | MANHATTAN              | UNKNOWN |
| 9307242     | BRIDGE TO B'WAY.EXPRESSWA       | BRIDGE TO B'WAY.EXPRESSWA | MANHATTAN              | UNKNOWN |
| 9209836     | HENRY HUDSON PKWY.              | HENRY HUDSON PKWY.        | MANHATTAN              | UNKNOWN |
| 9006769     | RESTAURANT/UNK ADDRESS          | UNKNOWN                   | MANHATTAN              | UNKNOWN |
| 8504758     | MANHATTAN                       | MANHATTAN                 | MANHATTAN              | UNKNOWN |
| 8503796     | MANHATTAN                       | MANHATTAN                 | MANHATTAN              | UNKNOWN |
| 8503779     | MANHATTAN                       | MANHATTAN                 | MANHATTAN              | UNKNOWN |
| 8503506     | MANHATTAN                       | MANHATTAN                 | MANHATTAN              | UNKNOWN |
| 8503421     | MANHATTAN                       | MANHATTAN, EAST RIVER     | MANHATTAN              | WHR10   |
| 8503366     | MANHATTAN, NYC                  | MANHATTAN, HUDSON RIVER   | MANHATTAN              | WHR10   |
| 8503301     | MANHATTAN                       | MANHATTAN                 | MANHATTAN              | UNKNOWN |
| 8503107     | MANHATTAN                       | MANHATTAN                 | MANHATTAN              | UNKNOWN |
| 8202132     | WEST END AVE                    | WEST END AVE.             | MANHATTAN              | UNKNOWN |

|         |                            |                                    |               |         |
|---------|----------------------------|------------------------------------|---------------|---------|
| 1511232 | OIL SHEEN / PORT           | PIER 6                             | MANHATTAN     | UNKNOWN |
| 1012387 | A LINE SUBWAY STATION      | BROADWAY SUBWAY STATION            | MANHATTAN     | UNKNOWN |
| 1009165 | 222015; ADAM               | ADAM                               | MANHATTAN     | UNKNOWN |
| 1009163 | 222000; ADAM               | ADAM                               | MANHATTAN     | UNKNOWN |
| 1009149 | 221851; W ST               | W ST                               | MANHATTAN     | UNKNOWN |
| 1009036 | 220909; W 70 ST            | W 70 ST                            | MANHATTAN     | 10023   |
| 1009030 | 220841; MARGINAL ST        | MARGINAL ST                        | MANHATTAN     | UNKNOWN |
| 1008985 | 220219; MARGINAL ST        | MARGINAL ST                        | MANHATTAN     | UNKNOWN |
| 1008954 | 219988; TRANSVERSE NO 2 RD | TRANSVERSE NO 2 RD                 | MANHATTAN     | UNKNOWN |
| 1004493 | NYCDEP SEWAGE SPILL        | HARLEM RIVER DRIVE / AMSTERDAM AVE | MANHATTAN     | UNKNOWN |
| 0914575 | 218964; BROADWAY           | BROADWAY                           | MANHATTAN     | UNKNOWN |
| 0910600 | MANHOLE # 5107             | NORTH SIDE OF EAST NEW YORK AVE    | MANHATTAN     | UNKNOWN |
| 0702307 | STREET SPILL               | CENTRAL PARK WEST                  | MANHATTAN     | UNKNOWN |
| 0500598 | NEW YORK HARBOR            | NEW HARBOR                         | MANHATTAN     | UNKNOWN |
| 0407039 | MANHOLE # PM51728          | WETERN/77STREET                    | MANHATTAN     | UNKNOWN |
| 0402835 | UNKNOWN CON ED STRUCTURE   | NORTHEAST CORNER AND EAST          | MANHATTAN     | UNKNOWN |
| 0209669 | SPILL NUMBER 0209669       | EXTERIOR AV/BROADWAY               | MANHATTAN     | UNKNOWN |
| 0205301 | 74TH ST PUMP ROOM          | 74TH STREET                        | MANHATTAN     | UNKNOWN |
| 0009680 | EMPIRE LINE BETWEEN        | 42ND/72ND ST                       | MANHATTAN     | UNKNOWN |
| 1006338 | RAW SEWAGE                 | UNKNOWN                            | MANHATTAN     | UNKNOWN |
| 9905530 | VARIOUS LOCAIONS           | CITY AND WESTCHESTER               | NEW YORK      | UNKNOWN |
| 9806123 | CON EDISON                 | 70TH ST                            | NEW YORK      | UNKNOWN |
| 9113202 | 77 ST. TO 53 ST. IN MAN.   | 77TH ST TO 53RD ST                 | NEW YORK      | UNKNOWN |
| 8907255 | HERTZ RENT A CAR/MANH      |                                    | NEW YORK      | UNKNOWN |
| 8604519 | NEW YORK                   | NEW YORK                           | NEW YORK      | UNKNOWN |
| 1405089 | PIER 25                    | PIER 25                            | NEW YORK      | UNKNOWN |
| 1308812 | DRILL BLD 90               | DRILL                              | NEW YORK      | UNKNOWN |
| 0910547 | FREEDMAN                   | 825 WESTERN AVE                    | NEW YORK      | UNKNOWN |
| 0804920 | IN A SANIATATION TRUCK     | 86TH & 164TH STREET                | NEW YORK      | UNKNOWN |
| 0801987 | PORT OF ELIZABETH          | APM TERMINAL -BERTH AV8            | NEW YORK      | UNKNOWN |
| 0605148 | CENTRAL PARK POLICE        | 86TH STREET CAUSEWAY               | NEW YORK      | UNKNOWN |
| 0409177 | BETWEEN 62ND & 63RD STREET | 6TH AVE BET 62ND & 63RD ST         | NEW YORK      | UNKNOWN |
| 0406845 | SPILL NUMBER 0406845       | BAYWAY TERMINAL-LINDEN NJ          | NEW YORK      | UNKNOWN |
| 0302841 | CENTRAL PARK               | DPR MINERAL SPRINGS FACIL          | NEW YORK      | UNKNOWN |
| 0210329 | OSTANKINO                  | NEW YORK                           | NEW YORK      | UNKNOWN |
| 0210315 | PEARLMAR                   | NEW YORK                           | NEW YORK      | UNKNOWN |
| 0110864 | ON MARIA KNUTSEN VESSEL    | KINDER MORGAN DOCK 4               | NEW YORK      | UNKNOWN |
| 8606984 | UNKNOWN ADDRESS !          | UNKNOWN                            | NEW YORK CITY | UNKNOWN |
| 8600334 | PENN YARDS SHEEN,MANHATTA  | 72ND ST-PENN YD-LINCOLN W          | NEW YORK CITY | UNKNOWN |
| 0402552 | SPILL NUMBER 0402552       | BROADWAY                           | NEW YORK CITY | UNKNOWN |
| 8607173 | UNK                        | UNKNOWN                            | UNKNOWN       | UNKNOWN |

Hazardous Spills - MISC. SPILL CAUSES - Closed

| FACILITY ID | FACILITY NAME                   | STREET                          | CITY       | ZIP     |
|-------------|---------------------------------|---------------------------------|------------|---------|
| 0500536     | VAULT 1236                      | 218 FLOORWAY AND 8TH AVE        |            | UNKNOWN |
| 9212061     | 448 RIVERSIDE DRIVE             | 448 RIVERSIDE DRIVE             | BRONX      | UNKNOWN |
| 1010037     | DRILL                           | DRILL                           | DRILL      | UNKNOWN |
| 1307661     | CON EDISON FEEDER LINE M51 LEAK | CON EDISON FEEDER LINE M51 LEAK | MANAHATTAN | UNKNOWN |
| 9907952     | VAULT #6061                     | WEST SIDE OF 8TH AVE            | MANHATTAN  | UNKNOWN |
| 9907607     | CANAL                           | SANITATION                      | MANHATTAN  | UNKNOWN |
| 9804785     | APT 4J-                         | 10 BAY STREET LANDING           | MANHATTAN  | UNKNOWN |
| 9714182     | 125TH STREET TO                 | 62 ND STREET                    | MANHATTAN  | UNKNOWN |
| 9713418     | UNKNOWN                         | UNKNOWN                         | MANHATTAN  | UNKNOWN |
| 9506730     | TANGO PIER                      | TANGO PIER                      | MANHATTAN  | UNKNOWN |
| 9414330     | 5 MORGAN CT                     | 5 MORGAN CT                     | MANHATTAN  | UNKNOWN |
| 9410718     | 331 81ST STREET                 | 331 81ST STREET                 | MANHATTAN  | UNKNOWN |
| 9410330     | 115 LAKE ROAD                   | 115 LAKE ROAD                   | MANHATTAN  | UNKNOWN |
| 9410134     | ALLEY NEXT TO BUILDING          | 550 W. 712ND ST.                | MANHATTAN  | 10023   |
| 9402295     | LOWER LEVEL EB #12              | LOWER LEVER EB #12              | MANHATTAN  | UNKNOWN |
| 9312441     | 35 GROSS STREET                 | 35 GROSS STREET                 | MANHATTAN  | UNKNOWN |

|         |                                       |                                   |                      |         |
|---------|---------------------------------------|-----------------------------------|----------------------|---------|
| 9310279 | WESTSIDE HWY.                         | WESTSIDE HIGHWAY                  | MANHATTAN            | UNKNOWN |
| 9304809 | PLANDOMD ROAD ?                       | PLANDOMD ROAD?                    | MANHATTAN            | UNKNOWN |
| 9213451 | 79TH ST. & TRANSVERSE RD.             | 79TH ST. & TRANSVERSE RD.         | MANHATTAN            | UNKNOWN |
| 9212593 | 119 ZECNILYEA AVE                     | 119 ZECNILYEA AVE                 | MANHATTAN            | UNKNOWN |
| 1503339 | CON EDISON FEEDER LEAK                | 7 RIDGE HILL LANE                 | MANHATTAN            | UNKNOWN |
| 1410694 | 97ST TRAVERSE - CENTRAL PARK          | 97 ST TRAVERSE                    | MANHATTAN            | UNKNOWN |
| 1308187 | TRACKBED                              | EAST RIVER TUNNEL 3 MM 1.14       | MANHATTAN            | UNKNOWN |
| 1306115 | MANHOLE # 62575                       | WEST END AVE                      | MANHATTAN            | UNKNOWN |
| 1304633 | RAILROAD TRACKS                       | EAST RIVER TUNNEL MILE POST 0.89  | MANHATTAN            | UNKNOWN |
| 1208489 | LOWER MANHATTAN                       | ALL STREETS IN LOWER MANHATTAN    | MANHATTAN            | UNKNOWN |
| 1206721 | ROADWAY                               | PIER 33 / HELLGATE BRIDGE         | MANHATTAN            | UNKNOWN |
| 1206669 | ROADWAY                               | 49 NANN ST                        | MANHATTAN            | UNKNOWN |
| 1113047 | INSIDE CENTRAL PARK                   | 79TH ST                           | MANHATTAN            | PCENT   |
| 1106024 | CASTLE OIL OVERFILL                   | CENTRAL PARK                      | MANHATTAN            | UNKNOWN |
| 1104569 | NORTH RIVER WASTE WATER REGULATOR     | REGULATOR NR23                    | MANHATTAN            | UNKNOWN |
| 1010077 | # 7 SUBWAY LINE                       | STEINWAY TUBE C1 C2               | MANHATTAN            | UNKNOWN |
| 1009708 | ROADWAY                               | 193RD ST AND 4TH AVE              | MANHATTAN            | UNKNOWN |
| 1009136 | 221790; W 87 ST                       | W 87 ST                           | MANHATTAN            | 10024   |
| 1007567 | SURFACE WATER                         | WEST 79TH ST BOAT BASIN           | MANHATTAN            | 10024   |
| 0903026 | ROADWAY                               | WEST 69TH STREET                  | MANHATTAN            | 10023   |
| 0709465 | NEW YORK HARBOR                       | UNKNOWN STREET ADDRESS            | MANHATTAN            | UNKNOWN |
| 0704113 | CENTRAL PARK 79TH ST MAIN             | WEST DRIVE AT 79TH ST             | MANHATTAN            | UNKNOWN |
| 0506125 | VERRAZANO BRIDGE                      | NO STREET ADDRESS                 | MANHATTAN            | UNKNOWN |
| 0504534 | 86TH AND FOURTH AVE                   | 86TH AND FOURTH AVE               | MANHATTAN            | UNKNOWN |
| 0503465 | CON ED EXCAVATION SITE                | 74TH STREET                       | MANHATTAN            | UNKNOWN |
| 0500954 | FRONT OF                              | 25 GRANITE STREET                 | MANHATTAN            | UNKNOWN |
| 0401661 | MANHATTAN GRID CHAMBER                | MANHATTAN GRID                    | MANHATTAN            | UNKNOWN |
| 0401520 | MANHATTAN GRID CHAMBER                | MANHATTAN GRID CHAMBER            | MANHATTAN            | UNKNOWN |
| 0212081 | SPILL NUMBER 0212081                  | 555 WEST 83RD ST                  | MANHATTAN            | 10024   |
| 0109602 | WESTSIDE PLAZA                        | NO ADDRESS (WESTSIDE PLAZA)       | MANHATTAN            | UNKNOWN |
| 0013621 | PIER 45                               | NORTH RIVER                       | MANHATTAN            | UNKNOWN |
| 0708382 | AMTRACK                               | TUNNEL #3 BETWEEN MADISON         | MANHATTAN            | UNKNOWN |
| 0706052 | CONSTRUCTION SITE                     | 78TH & 101 TH AVE                 | MANHATTAN            | UNKNOWN |
| 9713824 | CENTRAL PARK                          | 97TH ST / MID PARK                | NEW YORK             | UNKNOWN |
| 1509631 | RESIDENTIAL                           | 412 WESTERN AVE                   | NEW YORK             | UNKNOWN |
| 1507519 | ALLIANCE GLOBAL SITE                  | 51 -63 ACE AVE                    | NEW YORK             | UNKNOWN |
| 1204511 | 3 STORY BUILDING                      | 1183 BAY STREET                   | NEW YORK             | UNKNOWN |
| 1108305 | RELAY ROOM FOR NYC TRANSIT            | SOUTH ST AND ADMIRAL GEORGE DEWEY | NEW YORK             | UNKNOWN |
| 1010611 | PRINCESS K OVERFILL                   | LAT 40/37.9 LONG 74/ 3.7          | NEW YORK             | UNKNOWN |
| 1007852 | ROADWAY                               | WEST 772ND ST AND COLUMBUS AVE    | NEW YORK             | UNKNOWN |
| 0810612 | LAT 40-3942.8 SEC NORTH LONG-74.343SW | PORT JERSEY CHANNEL               | NEW YORK             | UNKNOWN |
| 0808382 | 13 TH MANHATTEN CHAMBER               | 13 TH MANHATTEN CHAMBER           | NEW YORK             | UNKNOWN |
| 0409938 | NEW YORK IM TTDock A                  | NEW YORK IM TT DOCK               | NEW YORK             | UNKNOWN |
| 0310659 | GREYSEND ANCHORAGE PORT               | UNKNOWN                           | NEW YORK             | UNKNOWN |
| 1206909 | SPECTRA SITE                          | GANSEVOORT RD                     | NEW YORK (MANHATTAN) | UNKNOWN |
| 9606764 | FEEDER #71                            | DUNWOODIE TO RAINEY               | NEW YORK CITY        | UNKNOWN |
| 9102962 | 97TH ST/TRANSVERSE RD/MAN             | 97TH ST & TRANSVERSE RD           | NEW YORK CITY        | UNKNOWN |
| 9011921 | FDR&LAUREL HILL/181ST ST              | FDR&LAUREL HILL TERRACE           | NEW YORK CITY        | UNKNOWN |
| 8606687 | 334 90TH ST.                          | 334 90TH ST.                      | NEW YORK CITY        | UNKNOWN |
| 8603501 | CONED 75 ST                           | CONED 75 ST                       | NEW YORK CITY        | UNKNOWN |
| 0207606 | 188TH STREET AND                      | 188TH ST & COLUMBUS AVE           | NEW YORK CITY        | UNKNOWN |
| 0402464 | IN FLIGHT                             | AIR                               | NY                   | UNKNOWN |
| 9202729 | 90TH STREET                           | 90TH STREET                       | NYC                  | UNKNOWN |
| 9501840 | UNKNOWN LOCATION                      | UNKNOWN LOCATION                  | WESTCHESTER          | UNKNOWN |

Petroleum Bulk Storage Facilities

| FACILITY ID | FACILITY NAME                  | STREET                           | CITY     | ZIP     |
|-------------|--------------------------------|----------------------------------|----------|---------|
| 2-609607    | SHAFT 13B                      | 79TH STREET TRANSVERSE ROAD      | NEW YORK | UNKNOWN |
| NY07443     | NYC FIRE                       |                                  | NEW YORK | UNKNOWN |
| 2-157856    | MOBIL S/S 1 JBWBT ARDOR GARAGE | MOBIL S/S 1 (JBWBT ARDOR GARAGE) | NY       | UNKNOWN |

Hazardous Waste Generation or Transport Facilities

| FACILITY ID  | FACILITY NAME                 | STREET                         | CITY      | ZIP      |
|--------------|-------------------------------|--------------------------------|-----------|----------|
| NYN20002A347 |                               |                                |           | UNKNOWN  |
| NYP004181152 | CONED                         | MH SV-13                       | MANHATTAN | UNKNOWN  |
| NYP004407967 | CONSOLIDATED EDISON           | ILLEGIBLE                      | MANHATTAN | UNKNOWN  |
| NY0000010363 | NYCDOT                        | N/S                            | N/S       | UNKNOWN  |
| NYP004077467 | CONSOLIDATED EDISON           | MH37962-SAINT JOHN             | N/S       | UNKNOWN  |
| NY0005000575 | JOHN DOE                      | DELETE                         | NEW YORK  | UNKNOWN  |
| NYD000100073 | NYCDOT MANHATTN BRIDGE        | OVER EAST RIVER                | NEW YORK  | 10000    |
| NYD004064622 | CONSOLIDATED EDISON           | N/S                            | NEW YORK  | UNKNOWN  |
| NYD004079695 | CONSOLIDATED EDISON           | MH57861 74TH &75TH ST          | NEW YORK  | UNKNOWN  |
| NYD981887194 | METRO-NORTH RAILROAD          | FORMER DISTRIBUTION CENTER     | NEW YORK  | UNKNOWN  |
| NYP000007732 | NYCTA                         | N/S                            | NEW YORK  | UNKNOWN  |
| NYP000915488 | CON EDISION - WTC AREA        | VARIOUS WTC LOCATIONS          | VARIOUS   | NEW YORK |
| NYP000918558 | NYCTA                         | N/S                            | NEW YORK  | UNKNOWN  |
| NYP000936898 | NYC DEPT PARKS & RECREATION   | WEST 79TH ST                   | NEW YORK  | 10024    |
| NYP000963462 | VERIZON NEW YORK INC. MANHOLE | NW 93 RD                       | NEW YORK  | UNKNOWN  |
| NYP004020566 | CONSOLIDATED EDISON           | V5715-READERS DIGEST           | NEW YORK  | UNKNOWN  |
| NYP004033411 | CONSOLIDATED EDISON           | V0155                          | NEW YORK  | UNKNOWN  |
| NYP004037867 | CONSOLIDATED EDISON           | V2801-W 395TH ST               | NEW YORK  | UNKNOWN  |
| NYP004038774 | CONSOLIDATED EDISON           | V5145-COLUMBUS AVE             | NEW YORK  | UNKNOWN  |
| NYP004039633 | CONSOLIDATED EDISON           | VS0618-N/S                     | NEW YORK  | UNKNOWN  |
| NYP004040531 | CONSOLIDATED EDISON           | #15691-W 79TH ST               | NEW YORK  | 10024    |
| NYP004043139 | CONSOLIDATED EDISON           | MH62189 - WSD ST               | NEW YORK  | UNKNOWN  |
| NYP004048708 | CONSOLIDATED EDISON           | 614145 M E                     | NEW YORK  | UNKNOWN  |
| NYP004050092 | CONSOLIDATED EDISON           | V5105-F/O 101 WHO ST           | NEW YORK  | UNKNOWN  |
| NYP004056701 | CONSOLIDATED EDISON           | N/S                            | NEW YORK  | UNKNOWN  |
| NYP004063392 | CONSOLIDATED EDISON           | 496 GLEN AVE                   | NEW YORK  | UNKNOWN  |
| NYP004066676 | CONSOLIDATED EDISON           | MH61062                        | NEW YORK  | UNKNOWN  |
| NYP004068078 | CONSOLIDATED EDISON           | TM3481                         | NEW YORK  | UNKNOWN  |
| NYP004072153 | CONSOLIDATED EDISON           | MH73305                        | NEW YORK  | UNKNOWN  |
| NYP004072385 | CONSOLIDATED EDISON           | 209 FLORENCE AVE               | NEW YORK  | UNKNOWN  |
| NYP004076295 | CONSOLIDATED EDISON           | MH27243-BROWN                  | NEW YORK  | UNKNOWN  |
| NYP004083804 | CONSOLIDATED EDISON           | BER BOX 54269                  | NEW YORK  | UNKNOWN  |
| NYP004100384 | CONSOLIDATED EDISON           | 136 N MAIN ST                  | NEW YORK  | UNKNOWN  |
| NYP004110201 | CONSOLIDATED EDISON           | V3480 / 92-104 CODA ST         | NEW YORK  | UNKNOWN  |
| NYP004144119 | CONSOLIDATED EDISON           | MH11077                        | NEW YORK  | UNKNOWN  |
| NYP004144190 | CONSOLIDATED EDISON           | 413TH ST & 220TH ST            | NEW YORK  | UNKNOWN  |
| NYP004146122 | CONSOLIDATED EDISON           | MANSSION & MCKINLEY DUNWOODIE  | NEW YORK  | UNKNOWN  |
| NYP004162582 | CON EDISON                    | NW COR W 76TH ST               | NEW YORK  | 10023    |
| NYP004173522 | CONSOLIDATED EDISON           | 1000 FAIRWAY LANE              | NEW YORK  | UNKNOWN  |
| NYP004179271 | CONED                         | 75 E BLD 1                     | NEW YORK  | UNKNOWN  |
| NYP004179297 | CONSOLIDATED EDISON           | F/O 281 E DROMBE AVE           | NEW YORK  | UNKNOWN  |
| NYP004189023 | CONSOLIDATED EDISON           | F/O 1731 EAST AVE.             | NEW YORK  | UNKNOWN  |
| NYP004196879 | CONSOLIDATED EDISON           | NORTH SIDE OF JOHN ST 75' EAST | NEW YORK  | UNKNOWN  |
| NYP004199303 | CONSOLIDATED EDISON           | 185TH & COLUMBUS AVE           | NEW YORK  | UNKNOWN  |
| NYP004217703 | CONSOLIDATED EDISON           | MH2721 - CEDAR & PALMER        | NEW YORK  | UNKNOWN  |
| NYP004224846 | CONED -                       | NO ADDRESS INFO ON MANIFEST    | NEW YORK  | UNKNOWN  |
| NYP004226629 | CONED                         | W 1321TH ST                    | NEW YORK  | UNKNOWN  |
| NYP004226710 | CONED                         | FLO 55                         | NEW YORK  | UNKNOWN  |
| NYP004226751 | CONED                         | FLO 49                         | NEW YORK  | UNKNOWN  |
| NYP004226769 | CONED                         | FLO 61                         | NEW YORK  | UNKNOWN  |
| NYP004240123 | CONED                         | MANHOLE 1794                   | NEW YORK  | UNKNOWN  |
| NYP004245866 | CONED                         | GAS DRIP 501                   | NEW YORK  | UNKNOWN  |
| NYP004320222 | CON EDISON                    | SCENT PK TRANS RD 1 SE CPW     | NEW YORK  | 10023    |
| NYP004320230 | CON EDISON                    | N TRANSVERSE RD 217 E CPW      | NEW YORK  | 10023    |
| NYP004321626 | CON EDISON                    | 290 ` E S CENT PK TRANS RD 1 E | NEW YORK  | 10023    |
| NYP004323903 | CON EDISON                    | NE RIVERSIDE DR                | NEW YORK  | 10024    |
| NYP004473765 | CON EDISON                    | NORTH SIDE CYRPRESS AVE        | NEW YORK  | UNKNOWN  |

|              |                               |                                   |          |         |
|--------------|-------------------------------|-----------------------------------|----------|---------|
| NYP004527941 | CON EDISON                    | 6' SOUTH 10 NORTH WO WEST END AVE | NEW YORK | 10023   |
| NYP004703834 | CONSOLIDATED EDISON           | MH26764                           | NEW YORK | UNKNOWN |
| NYR000005678 | NYC PARKS AND REC 86TH STREET | 86TH ST TRAVERSE RD CENTRAL PK    | NEW YORK | UNKNOWN |
| NYR000034058 | NYCTA                         | CONTRACT #S-34505 - RM 819        | NEW YORK | UNKNOWN |
| NYR000091793 | NYCDEP CENTRAL PARK RESERVOIR | 86TH ST & PARK DR N               | NEW YORK | 10024   |
| NYR000103630 | NYC DEPT OF PARKS             | CENTRAL PARK TRANSVERSE           | NEW YORK | 10024   |
| NYR000050625 | NYCTA                         | 606W FROST                        | NYC      | UNKNOWN |

Hazardous Substance Waste Sites

| FACILITY ID | FACILITY NAME        | STREET            | CITY          | ZIP     |
|-------------|----------------------|-------------------|---------------|---------|
| NY0081      | ROUTE 9A - MANHATTAN | WEST SIDE HIGHWAY | NEW YORK CITY | UNKNOWN |

Wastewater Discharges

| FACILITY ID | FACILITY NAME               | STREET | CITY | ZIP     |
|-------------|-----------------------------|--------|------|---------|
| NY0200794   |                             |        |      | UNKNOWN |
| NYU200032   | CONSOLIDATED EDISON COMPANY |        |      | UNKNOWN |

Air Releases

| FACILITY ID | FACILITY NAME        | STREET               | CITY          | ZIP     |
|-------------|----------------------|----------------------|---------------|---------|
| 3606100080  | NYCHA-FOSTER HOUSING | NO STREET ADDRESS    | NEW YORK      | UNKNOWN |
| 3606100129  | NAVY DIST COMMANDER  | NO STREET ADDRESS    | NEW YORK      | UNKNOWN |
| 3606100495  | FEILER BROS CORP     | ROOM 1700            | NEW YORK      | UNKNOWN |
| 3606100552  | ACADEMY CONSTRUCTION | NO STREET ADDRESS    | NEW YORK      | UNKNOWN |
| 3606180051  | FEILER BROS CORP     | ROOM 1700            | NEW YORK      | UNKNOWN |
| 3606100558  | SOS INTERNATIONAL    | BOX 2976 CHURCH STAT | NEW YORK CITY | UNKNOWN |
| NY061X0NP   | MIDTOWN HOLDING CO   | NO STREET ADDRESS    | NO CITY NAME  | UNKNOWN |
| NY061X2DR   | UNI HAB CO           | NO STREET ADDRESS    | NO CITY NAME  | UNKNOWN |

**Hazardous waste codes presented in individual Toxic Information Profiles are defined below.**

- B001 PCB Oil (concentrated) from transformers, capacitors, etc.
- B002 Petroleum oil or other liquid containing 50 ppm or greater of PCBs but less than 500 ppm PCBs. This includes oil from electrical equipment whose PCB concentration is unknown, except for circuit breakers, reclosers and cable.
- B003 Petroleum oil or other liquid containing 500 ppm or greater of PCBs.
- B007 Other PCB Wastes including contaminated soil, solids, sludges, clothing, rags, and dredge material.
- B008
- D001 Solid waste that exhibits the characteristic of ignitability, but is not listed under any other hazardous waste code.
- D002 Solid waste that exhibits the characteristic of corrosivity, but is not listed under any other hazardous waste code.
- D003 Solid waste that exhibits the characteristic of reactivity, but is not listed under any other hazardous waste code.
- D004 Arsenic
- D006 Cadmium
- D007 Chromium
- D008 Lead
- D009 Mercury
- D011 Silver
- D018 BENZENE
- D022 Chloroform
- F001 The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (T)
- F002 The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the

recovery of these spent solvents and spent solvent mixtures. (T)

- F003 The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (I)\*
- F004 The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (T)
- F005 The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (I,T)
- F027 Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.) (H)
- P012 Arsenic oxide  $As_2O_3$
- P030 Cyanides (soluble cyanide salts), not otherwise specified
- P087 Osmium oxide  $OsO_4$ , (T-4)-
- P106 Sodium cyanide  $Na(CN)$
- P108 Strychnine, & salts
- U002 Acetone (I)
- U007 Acrylamide
- U012 Aniline (I,T)
- U019 Benzene (I,T)
- U021 Benzidine
- U044 Chloroform

U069 1,2-Benzenedicarboxylic acid, dibutyl ester  
U072 Benzene, 1,4-dichloro-  
U077 Ethane, 1,2-dichloro-  
U080 Methylene chloride  
U108 1,4-Diethyleneoxide  
U122 Formaldehyde  
U123 Formic acid (C,T)  
U134 Hydrogen fluoride (C,T)  
U138 Methane, iodo-  
U147 2,5-Furandione  
U151 Mercury  
U165 Naphthalene  
U182 1,3,5-Trioxane, 2,4,6-trimethyl-  
U188 Phenol  
U211 Methane, tetrachloro-  
U220 Toluene  
U228 Ethene, trichloro-  
U238 Carbamic acid, ethyl ester  
U239 Xylene (I)  
X726  
X850  
X900

X940

Source: U. S. Environmental Protection Agency

# How Toxic Site Locations Are Mapped

Toxics Targeting maps toxic site locations on a digital version of the U. S. Census map or those used by local authorities using addresses and map coordinates provided by site owners/operators or government agencies. In order to allow site locations to be verified independently, the information used to map each site is presented in the first section of each Toxic Site Profile, along with a description of the mapping technique used and any address corrections that were made in order to locate toxic sites with incomplete or inadequate site location information. The mapping process is explained below.

Map Identification Number: 12

Site Name: Acme World Manufacturing, Inc.

Site Address: 55 Main Street

Anytown, NY 11797

## MAP LOCATION INFORMATION

Site location mapped by:

Address Matching

1) Most toxic sites are mapped by matching addresses provided by site owners/operators or government agencies with locations on a digital version of the street or parcel map. These site locations are identified with the method used to map them.

Note: Some sites have an address match location and a map coordinate location. Both locations are mapped because they can be equally correct.

or Map Coordinate

2) Some toxic sites are located using map coordinates provided by site owners/operators or government agencies. These site locations are identified "map coordinate." Map coordinates for Toxic Wastewater Discharges, Toxic Release Inventory sites and Major Oil Storage Facilities should be considered suspect.

or Manual Mapping

or Site Visit

3) Incomplete addresses or map coordinates require some site locations to be determined by commercial street maps (manual mapping), site visits, map coordinates from other databases and address location services. Application of any of these methods is identified accordingly.

## ADDRESS CHANGE INFORMATION

Revised Street: NO CHANGE

Revised zip code: NO CHANGE

4) Site addresses are sometimes corrected to eliminate obvious errors that prevent sites from being mapped. All address corrections are noted here.

# Information Source Guide

*Toxics Targeting's Environmental Reports* contain government and other information compiled on 21 categories of reported known or potential toxic sites. Each toxic site database is described below with information detailing a) the source of the information, b) the date when each database is covered to and c) when *Toxics Targeting* obtained the information..

1) **National Priority List for Federal Superfund Cleanup**: Toxic sites nominated for cleanup under the Federal Superfund program. Annual compilation of special two-page detailed profiles of NPL sites. Also includes delisted NPL sites. ASTM required.\* Fannie Mae required.\*\* Source: U. S. Environmental Protection Agency.<sup>1</sup>  
Data attributes updated from: 9/9/2015. Data obtained by Toxics Targeting: 9/9/2015.  
New Facilities updated through: 9/9/2015. Data obtained by Toxics Targeting: 9/9/2015.

2) **Inactive Hazardous Waste Disposal Site Registry**: New York State database that maintains information and aids decision making regarding the investigation and cleanup of toxic sites. The Registry's data includes two-page profiles noting site name, ID number, description, classification, cleanup status, types of cleanup, owner information, types and quantities of contaminants, and assessment of health and environmental problems. Also included are sites that qualify for possible inclusion on the Registry. These Registry Qualifying sites may or may not be on the Site Registry. ASTM required.\* Fannie Mae required.\*\* Source: New York State Department of Environmental Conservation.<sup>2</sup>  
Data attributes updated through: 7/01/2016. Data obtained by Toxics Targeting: 7/01/2016.  
New Facilities updated to: 7/01/2016. Data obtained by Toxics Targeting: 7/01/2016.

3) **Federal & State Corrective Action Activity (CORRACTS)**: New York State and Federal databases of hazardous facilities regulated pursuant to the Resource Conservation and Recovery Act (RCRA). ASTM required.\* Fannie Mae required.\*\*

|                                  |            |                                                            |
|----------------------------------|------------|------------------------------------------------------------|
| <b>Federal Data</b>              |            | Source: U. S. Environmental Protection Agency <sup>1</sup> |
| Data attributes updated through: | 4/11/2016. | Data obtained by Toxics Targeting: 4/19/2016.              |
| New facilities updated through:  | 4/11/2016. | Data obtained by Toxics Targeting: 4/19/2016.              |

|                                  |            |                                                                               |
|----------------------------------|------------|-------------------------------------------------------------------------------|
| <b>State Data</b>                |            | Source: New York State Department of Environmental Conservation. <sup>2</sup> |
| Data attributes updated through: | 7/01/2016. | Data obtained by Toxics Targeting: 7/01/2016.                                 |
| New facilities updated through:  | 7/01/2016. | Data obtained by Toxics Targeting: 7/01/2016.                                 |

4) **CERCLIS**: Toxic sites listed in the Federal Comprehensive Environmental Response, Compensation and Liability Information System. Includes Active and No Further Remedial Action Planned (NFRAP) sites. ASTM required.\* Fannie Mae required.\*\* Source: U. S. Environmental Protection Agency.<sup>1</sup>  
Data attributes updated through: 10/25/2013. Data obtained by Toxics Targeting: 1/07/2014.  
New Facilities updated through: 1/11/2016. Data obtained by Toxics Targeting: 1/23/2016.

5) **Brownfield Programs**: NYS & NYC programs for sites that are abandoned, idled or under-used industrial and/or commercial sites where expansion or redevelopment is complicated by real or perceived environmental contamination. ASTM required.\*

(a) **NYS DEC Brownfield Programs**: Source: New York State Department of Environmental Conservation.<sup>2</sup> includes: **Brownfield Cleanup Program (BCP), Voluntary Cleanup Program (VCP), and Environmental Restoration Program (ERP)**  
Data attributes updated through: 7/01/2016. Data obtained by Toxics Targeting: 7/01/2016.  
New Facilities updated to: 7/01/2016. Data obtained by Toxics Targeting: 7/01/2016.

(b) **NYC Voluntary Cleanup Program**: Source: NYC Office of Environmental Remediation  
Data attributes updated through: 11/30/15. Data obtained by Toxics Targeting: 12/10/2015.  
New Facilities updated to: 11/30/15. Data obtained by Toxics Targeting: 12/10/2015.

6) **Solid Waste Facilities**: a compilation of the following 2 databases:

(a) **NYS Solid Waste Registry**: which includes, but is not limited to, landfills, incinerators, transfer stations, recycling centers. ASTM required.\* Fannie Mae required.\*\* Source: New York State Dept. of Environmental Conservation.<sup>2</sup>  
Data updated to: 4/1/2013. Data obtained by Toxics Targeting: 4/1/2013.

(b) **1934 Solid Waste Disposal Site in New York City**: which includes sites operated by municipal authorities circa 1934. Source: City of New York Department of Sanitation (1984). The Waste Disposal Problem in New York City: A Proposal For Action.

7) **RCRA Hazardous Waste Treatment, Storage or Disposal Facility Databases:**

(a) **Manifest Information:** New York State database of hazardous waste facilities and shipments regulated by the DEC's Division of Environmental Remediation pursuant to NYS Law and the Resource Conservation and Recovery Act (RCRA). ASTM required.\* Fannie Mae required.\*\* Source: New York State Department of Environmental Conservation.<sup>2</sup>

New facilities updated through: 4/22/2016. New facilities obtained by Toxics Targeting: 4/22/2016.  
Manifest transactions data updated to: 4/22/2016. Manifest transactions data obtained by Toxics Targeting: 4/22/2016.

(b) **RCRA Notifier & Violations Information:** U. S. Environmental Protection Agency database of hazardous facilities regulated pursuant to the Resource Conservation and Recovery Act (RCRA). ASTM required.\* Fannie Mae required.\*\* Source: U. S. Environmental Protection Agency<sup>1</sup>  
New facilities updated through: 4/11/2016. Data obtained by Toxics Targeting: 4/19/2016.  
Data attributes updated through: 4/11/2016. Data obtained by Toxics Targeting: 4/19/2016.

8) **Spills Information Database:** Spills reported to the DEC as required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from Petroleum Bulk Storage Regulations) or 6 NYCRR Section 595.2 (from Chemical Bulk Storage Regulations). This database includes both *active* and *closed* spills. ASTM required.\* Fannie Mae.\*\* Source: NYS Department of Environmental Conservation.<sup>2</sup>

New spills through: 2/13/2016 New spills data obtained by Toxics Targeting: 2/13/2016  
Spill attribute data through: 6/24/2016 Spill attribute data obtained by Toxics Targeting: 6/24/2016

Active spills: paperwork not completed. Closed spills: paperwork completed.  
Both active and closed spills may or may not have been cleaned up (see Date Cleanup Ceased in spill profiles).

9) **Major Oil Storage Facilities:** NYS database of facilities licensed pursuant to Article 12 of the Navigation Law, 6NYCRR Parts 610 and 17NYCRR Part 30, such as onshore facilities or vessels, with petroleum storage capacities equal to or greater than four hundred thousand gallons. **Tank & other data withheld by NYSDEC as of 4/1/2002.** ASTM required.\* Fannie Mae required.\*\* Source: New York State Department of Environmental Conservation.<sup>2</sup>

Data updated through: 7/1/2016. Data obtained by Toxics Targeting: 7/1/2016.

10) **Petroleum Bulk Storage Facilities:** a compilation of local and state databases of aboveground and underground petroleum storage tank facilities.

(a) **NYS Petroleum Bulk Storage Database:** This includes all New York State counties except Cortland, Nassau, Rockland, Suffolk, and Westchester. ASTM required.\* Fannie Mae required.\*\* Source: NYS Department of Environmental Conservation.<sup>2</sup>  
New facilities updated through: 7/1/2016. Data obtained by Toxics Targeting: 7/1/2016.  
Tank data updated through: 7/1/2016. Data obtained by Toxics Targeting: 7/1/2016.

(b) **New York City Fire Department Tank Data:** **Data has been withheld by the NYC Fire Dept.**  
Source: New York City Fire Department. Data obtained by Toxics Targeting: 2/18/1997

11) **RCRA Hazardous Waste Generators and/or Transporters Databases:**

(a) **Manifest Information:** New York State database of hazardous waste facilities and shipments regulated by the NYS Department of Environmental Conservation's Division of Environmental Remediation pursuant to New York State Law. ASTM required.\* Fannie Mae required.\*\* Source: New York State Department of Environmental Conservation.<sup>2</sup>

New facilities updated through: 4/22/2016. New facilities obtained by Toxics Targeting: 4/22/2016.  
Manifest transactions data updated to: 4/22/2016. Manifest transactions data obtained by Toxics Targeting: 4/22/2016.

(b) **RCRA Notifier & Violations Information:** U. S. Environmental Protection Agency database of hazardous facilities regulated pursuant to the Resource Conservation and Recovery Act (RCRA). ASTM required.\* Fannie Mae required.\*\* Source: U. S. Environmental Protection Agency<sup>1</sup>  
New facilities updated through: 4/11/2016. Data obtained by Toxics Targeting: 4/19/2016.  
Data attributes updated through: 4/11/2016. Data obtained by Toxics Targeting: 4/19/2016.

12) **Chemical Bulk Storage Facilities:** New York State database of facilities compiled pursuant to 6NYCRR Part 596 that store regulated substances listed in 6NYCRR Part 597 in aboveground tanks with capacities greater than 185 gallons and /or in underground tanks of any size. **Tank & other data withheld by NYSDEC as of 4/1/2002.** ASTM required.\* Fannie Mae required.\*\* Source: New York State Department of Environmental Conservation.<sup>2</sup>  
Data updated through: 7/1/2016. Data obtained by Toxics Targeting: 7/1/2016.

13) **Historic New York City Utility Facilities (1898 to 1950)**: An inventory of selected power generating stations, manufactured gas plants, gas storage facilities, maintenance yards and other gas and electric utility sites identified in various historic documents, maps and annual reports of New York utility companies, including: Sanborn Fire Insurance Maps of NYC (1898-1950); Consolidated Edison Co. Annual Reports (1922-1939); Consolidated Edison Co. Map: "Boroughs of Manhattan and the Bronx Showing Distribution Mains of the New York Edison Co.," (1922); and Consolidated Edison document: "Generating and Annex Stations," (1911).

14) **Hazardous Substance Waste Disposal Site Study**: NYS database of waste disposal sites that may pose threats to public health or the environment, but could not be remediated using monies from the Hazardous Waste Remedial Fund.

Source: New York State Department of Environmental Conservation.<sup>2</sup>

Data updated to: 5/16/2000.

Data obtained by Toxics Targeting: 5/16/2000.

15) **Toxic Release Inventory (TRI)**: Federal database of manufacturing facilities required under Section 313 of the Federal Emergency Planning and Community Right-to-Know Act to report releases to the air, water and land of any specifically listed toxic chemical. See Fannie Mae requirement\*\* below.

Source: U. S. Environmental Protection Agency.<sup>1</sup> / NYS Department of Environmental Conservation<sup>2</sup>

Data updated through: 3/8/2004.

Data obtained by Toxics Targeting: 3/25/2004

16) **Toxic Wastewater Discharges (Permit Compliance System)**: Federal database of discharges of wastewater to surface waters and groundwaters. See Fannie Mae requirement\*\* below. Source: U. S. Environmental Protection Agency.<sup>1</sup>

Data updated through: 6/17/2004.

Data obtained by Toxics Targeting: 7/19/2004.

17) **Air Discharge Facilities**: EPA AIRS database containing address information on each air emission facility and the type of air pollutant emission it is. Compliance information is also provided on each pollutant as well as the facility itself.

See Fannie Mae requirement\*\* below.

Source: U. S. Environmental Protection Agency<sup>1</sup>

Data updated through: 11/24/1999.

Data obtained by Toxics Targeting: 1/6/2000

18) **Civil Enforcement & Administrative Docket**: This database is the U. S. EPA's system for tracking administrative and civil judiciary cases filed on behalf of the agency by the Department of Justice. Fannie Mae required.\*\*

Source: U. S. Environmental Protection Agency.<sup>1</sup>

New Sites through: 10/14/1999.

Data updated through: 10/14/1999.

Data obtained by Toxics Targeting: 11/18/1999.

19) **New York City Environmental Quality Review (CEQR) – E Designation Sites**: These sites are parcels assigned a special environmental ("E") designation under the CEQR process. E designation requires specific protocols that must be followed.

Source: New York City Department of Planning<sup>3</sup>

Data updated through: 6/16/2016.

Data obtained by Toxics Targeting: 6/20/2016.

20) **Emergency Response Notification System (ERNS)**: Federal database of spills compiled by the Emergency Response Notification System. On-site searches only.

ASTM required.\* See Fannie Mae requirement\*\* below.

Source: U. S. Environmental Protection Agency.<sup>1</sup>

Data updated through: 1/31/2000.

Data obtained by Toxics Targeting: 2/15/2000

21) **Remediation Site Borders**: Remediation site borders reported by NYSDEC.

Source: New York State Department of Environmental Conservation.<sup>2</sup>

Updated through: 4/8/2009.

Data obtained by Toxics Targeting: 7/21/2009.

\* American Society of Testing Materials: Standard Practice on Environmental Site Assessments: Phase I Environmental Site Assessment Process (E1527-05).

\*\* Fannie Mae's Part X Environmental Hazards Management Procedures specify 1.0 mile searches for "any state or Federal list of hazardous waste sites (e.g. CERCLIS, HWDMS etc.)." Searches for the property and adjacent properties are specified for "chemical manufacturing plants," "obvious high risk neighbors engaging in storing or transporting hazardous waste, chemicals or substances" and "...any documented or visible evidence of dangerous waste handling... (e.g. stressed vegetation, stained soil, open or leaking containers, foul fumes or smells, oily ponds, etc." Searches for property and adjacent properties can include sites up to a quarter mile away (W. Hayward, Director, Multi-Family Business Planning and Control, Fannie Mae, personal communication, 5/94).

<sup>1</sup>U. S. Environmental Protection Agency, 290 Broadway, NY, NY 10007-1866.

<sup>2</sup>NYS Department of Environmental Conservation, 625 Broadway, Albany, NY 12233.

<sup>3</sup>New York City Department of City Planning, 22 Reade St, New York, NY 10007-1216

**APPENDIX D**  
**LOCAL RECORDS**

## Department of Environmental Conservation

### Menu

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FOIL Request Main Page (SupportHome.aspx)

I want to...

**Reference No:** W010617-080516  
**Contact E-Mail:** abosco@akrf.com

Dear Adrianna:

Thank you for your Freedom of Information Law (FOIL) request. Your request has been received and is being processed. Your request was received in this office on 8/5/2016 and given the reference number FOIL #**W010617-080516** for tracking purposes. You may expect the Department's response to your request no later than **9/2/2016**.

**Record Requested: Information regarding underground/aboveground storage tanks (USTs/ASTs), spill records, remediation sites, dump sites, soil and groundwater remediation, storage/treatment/disposal of hazardous materials or hazardous materials activities for the following address: 200 Central Park West, New York, NY 10024 (American Museum of Natural History) PBS ID: 2-611190**

You can monitor the progress of your request at the link below and you'll receive an email when your request has been completed. Again, thank you for using the FOIL Center.

[https://mycusthelp.com/NEWYORKDEC/\\_rs/RequestLogin.aspx](https://mycusthelp.com/NEWYORKDEC/_rs/RequestLogin.aspx)  
([https://mycusthelp.com/NEWYORKDEC/\\_rs/RequestLogin.aspx](https://mycusthelp.com/NEWYORKDEC/_rs/RequestLogin.aspx))

New York State Department of Environmental Conservation, Record Access Office

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Adrianna Bosco &lt;abosco@akrf.com&gt;

---

**FOIL Request :: W010617-080516**

1 message

**New York DEC Support** <newyorkdec@mycusthelp.net>

Fri, Aug 5, 2016 at 2:48 PM

To: abosco@akrf.com

Dear Adrianna:

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[https://mycusthelp.com/NEWYORKDEC/\\_rs/RequestLogin.aspx](https://mycusthelp.com/NEWYORKDEC/_rs/RequestLogin.aspx)

New York State Department of Environmental Conservation, Record Access Office

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Track the issue status and respond at: [https://mycusthelp.com/NEWYORKDEC/\\_rs/RequestEdit.aspx?rid=10617](https://mycusthelp.com/NEWYORKDEC/_rs/RequestEdit.aspx?rid=10617)



**Environmental and Planning Consultants**

440 Park Avenue South  
7th Floor  
New York, NY 10016  
tel: 212 696-0670  
fax: 212 213-3191  
[www.akrf.com](http://www.akrf.com)

August 5, 2016

Records Access Office  
New York State Department of Health  
Corning Tower Room 2364  
Albany, New York 12237-0044  
518-486-9144 (fax)

Sent by e-mail

Re: FOIL Request  
Project No.: 12166  
200 Central Park West, New York, NY 10024 (American Museum of Natural History)

Dear Sir or Madam:

Pursuant to the Freedom of Information Law, we are requesting information regarding underground/aboveground storage tanks (USTs/ASTs), spill records, remediation sites, dump sites, soil and groundwater remediation, storage/treatment/disposal of hazardous materials or hazardous materials activities for the above referenced site. Your response can either be faxed to (212) 726-0942 or mailed to the address identified above as soon as possible. Please notify me if there are any costs associated with processing this request. In addition, please indicate AKRF's project number (**12166**) on all correspondence. If you have any questions, please call me at (646) 388-9576.

Thank you in advance for your assistance and cooperation.

Sincerely,  
AKRF, Inc.

A handwritten signature in black ink that reads "Adrianna Bosco".

Adrianna Bosco  
Environmental Scientist



GO

NEWSLETTER SIGN-UP | EMAIL A FRIEND | PRINTER FRIENDLY | TRANSLATE THIS PAGE | TEXT SIZE: A A A

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# Application for Records Under FOIL

## FOIL Request Form

Please complete the form below. If responsive records are located, you will be notified and informed of the required payment. Advance payment is required in check or money order payable to the NYC DEP at a cost of \$.25 per page, or actual cost of reproduction before documents will be released.

### Instructions

- Instructions for Applications for Records Under FOIL

Check one: Under Article 6 of the New York State Public Officers Law ("FOIL"), I hereby apply to:

- Inspect copies; or  Receive copies of the following records.

Specify/Describe the records you are requesting in detail. Include any relevant location, address, permit #, complaint #, court index #, incident date, etc. If applicable, please submit separate requests for multiple locations, account #'s or incidents.

Information regarding underground/aboveground storage tanks (USTs/ASTs), spill records, remediation sites, dump sites, soil and groundwater remediation, storage/treatment/disposal of hazardous materials or hazardous materials activities.

Location: (If possible, list full street address, including borough)

200 Central Park West, New York, NY 10024 (Manhattan)

Time frame/Date of Records:

Any/all

Requestor's Name:

Adrianna Bosco

Email:

abosco@akrf.com

Organization/Firm:

AKRF, Inc.

Phone:

646-388-9576

Address:

440 Park Avenue South, 7th Floor

Address Line 2 (optional):

New York, NY 10016

My DEP Account and Online Bill Pay

New Payment Options

Reservoir Levels

Current: 85.5%

Normal: 86.6%

Customer Assistance

- Contact Customer Service
- NYC Lien Sale & Payment Agreements
- Multi-Family Conservation Program
- Dispute Resolution
- Learn About AMR
- Dispose of Grease & Oil Properly
- For Businesses
- More Services...

Date:

Please be advised that your request is important to us and will be processed as expeditiously as possible. However, because of the volume of requests received by the NYC DEP, your acknowledgement letter may be delayed. A denial, in whole or in part, may be appealed within 30 days of the determination by writing to the NYC DEP FOIL Appeals Officer, at 59-17 Junction Blvd., 19<sup>th</sup> Fl., Flushing, NY 11373



Search bar with GO button

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- Contact Us

## Dear Sir or Madam

We hereby acknowledge receipt of your Freedom of Information Law ("FOIL") request submitted online. Your request is important to us and will be handled as expeditiously as possible. Please be advised however, that because of the large volume of pending complex FOIL requests handled by the Department of Environmental Protection, and the available staffing, your response is anticipated to take between 120-150 days from the date of this acknowledgement.

Sincerely,  
Deborah S. Fremder  
Records Access Officer

My DEP Account and Online Bill Pay

New Payment Options

### Reservoir Levels

Current: 85.5%  
Normal: 86.6%

### Customer Assistance

- Contact Customer Service
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- For Businesses
- More Services...





**NEW YORK CITY DEPARTMENT OF HEALTH AND MENTAL HYGIENE**

*For office use only*  
**CONTROL NUMBER:**

[Empty box for control number]

**FREEDOM OF INFORMATION LAW REQUEST FORM**

**To:** Records Access Officer  
NYC Department of Health and Mental Hygiene  
42-09 28<sup>th</sup> Street, 14<sup>th</sup> Floor, CN 31  
Long Island City, NY 11101  
Phone: (347) 396-6078/6116  
Fax: (347) 396-6087  
[recordsaccess@health.nyc.gov](mailto:recordsaccess@health.nyc.gov)

Date 08 / 05 / 16

Dear Record Access Officer:

I, Adrianna Bosco request copies of any inspection reports and/or records located in the Bureau of \_\_\_\_\_, of the New York City Department of Health and Mental Hygiene.

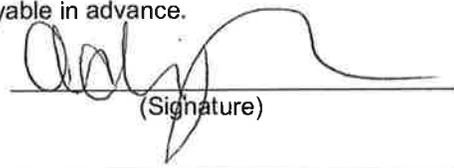
The records pertain to:

- Lead Poisoning                       Animal bite                       Employment/Human Resources
- Contracts/RFPs                       Pest Control                       Correctional Health
- Early Intervention                       Food Safety                       Mental Health
- Communicable Diseases                       School Health                       Day Care
- Other: \_\_\_\_\_

Please specify/describe the records you are requesting from the above program(s):  
Information regarding underground/aboveground storage tanks (USTs/ASTs), spill records, remediation sites, dump sites, soil and groundwater remediation, storage/treatment/disposal of hazardous or hazardous materials activities for the following address:  
200 Central Park West, New York, NY 10024 (American Museum of Natural History)

There is a charge of 25¢ per page or actual costs of reproduction, payable in advance.

Requester's Name: Adrianna Bosco  
(Please print)

  
(Signature)

Requester's Organization: AKRF, Inc.

Requester's Address: 440 Park Avenue South 7th Floor, New York, NY 10016  
Street City State Zip code

Telephone Number: (646) 388-9576 E-mail: abosco@akrf.com



NEW YORK CITY DEPARTMENT OF  
HEALTH AND MENTAL HYGIENE  
Mary T. Bassett, MD, MPH  
*Commissioner*

Christopher D'Andrea  
Director

Office of Environmental  
Investigations  
125 Worth St., Room 630  
New York, NY 10013

Tel. 1 646 632-6104  
Fax 1 646 632-6105

September 8, 2016

AKRF  
440 Park Avenue South, 7<sup>th</sup> Floor  
New York, NY 10016

Request No: 2016FR02138

Dear Adrianna Bosco:

In response to your recent request for environmental records on:

- 200 Central Park W, New York, NY

Please note the following:

- The Office of Environmental Investigations has "NO" record of an investigation at the above address.
- Enclosed are copies of the requested records we have on file.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris D'Andrea".

Christopher D'Andrea, MS, CIH  
Director

Cc: Renee Bryant



NEW YORK CITY DEPARTMENT OF HEALTH AND MENTAL HYGIENE

For office use only CONTROL NUMBER:

Empty box for control number

FREEDOM OF INFORMATION LAW REQUEST FORM

To: Records Access Officer
NYC Department of Health and Mental Hygiene
42-09 28th Street, 14th Floor, CN 31
Long Island City, NY 11101
Phone: (347) 396-6078/6116
Fax: (347) 396-6087
recordsaccess@health.nyc.gov

Date 08 / 05 / 16

Dear Record Access Officer:

I, Adrianna Bosco request copies of any inspection reports and/or records located in the Bureau of \_\_\_\_\_, of the New York City Department of Health and Mental Hygiene.

The records pertain to:

- Lead Poisoning, Animal bite, Employment/Human Resources, Contracts/RFPs, Pest Control, Correctional Health, Early Intervention, Food Safety, Mental Health, Communicable Diseases, School Health, Day Care, Other:

Please specify/describe the records you are requesting from the above program(s): Information regarding underground/aboveground storage tanks (USTs/ASTs), spill records, remediation sites, dump sites, soil and groundwater remediation, storage/treatment/disposal of hazardous or hazardous materials activities for the following address: 200 Central Park West, New York, NY 10024 (American Museum of Natural History)

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Requester's Name: Adrianna Bosco (Please print)

Handwritten signature

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Requester's Address: 440 Park Avenue South 7th Floor, New York, NY 10016

Telephone Number: (646) 388-9576 E-mail: abosco@akrf.com



## Department of Health

**ANDREW M. CUOMO**  
Governor

**HOWARD A. ZUCKER, M.D., J.D.**  
Commissioner

**SALLY DRESLIN, M.S., R.N.**  
Executive Deputy Commissioner

August 8, 2016

Adrianna Bosco  
AKRF Engineering, P.C.  
440 Park Avenue South, 7th Floor  
New York, NY 10016

FOIL # 16-08-096  
Project # 12166

Dear Ms. Bosco:

This will acknowledge receipt of your request for records under the Freedom of Information Law, received by this office on August 5, 2016.

Your request has been forwarded to the appropriate Department program area(s) to identify documents that are responsive to your request and which may be made available pursuant to all applicable provisions of the Freedom of Information Law.

A determination as to whether your request is granted or denied will be reached in approximately 20 business days or we will notify you in writing if the responsible program area(s) should require additional time to locate, assemble, and review documents that may be responsive to your request.

Please note that, pursuant to Article 6 of the Public Officers Law, a charge may be applied to your request, including the actual cost of the medium used to respond to your Freedom of Information Law request and/or other related costs. When responsive records have been identified, you will be informed of any cost and how payment should be made.

Sincerely,

Danielle L. Rysedorph, Esq.  
Records Access Office

DLR/dxd



**Department  
of Health**

**ANDREW M. CUOMO**  
Governor

**HOWARD A. ZUCKER, M.D., J.D.**  
Commissioner

**SALLY DRESLIN, M.S., R.N.**  
Executive Deputy Commissioner

September 6, 2016

Adrianna Bosco  
AKRF Engineering, P.C.  
440 Park Avenue South, 7th Floor  
New York, NY 10016

Re: FOIL #: 16-08-096  
Your File #: 12166  
Re: 200 Central Park West  
New York, NY 10024

Dear Ms. Bosco:

This letter responds to your Freedom of Information Law request of August 5, 2016, in which you requested "information regarding underground/aboveground storage tanks (USTs/ASTs), spill records, remediation sites, dump sites, soil and groundwater remediation, storage/treatment/disposal of hazardous materials or hazardous materials activities for the above referenced site." Please be advised that after conducting a diligent search, no records responsive to your request have been located.

The address is served by the New York City public water system, NY7003493. Any violation reports for the public water system can be found here:

[http://www.health.ny.gov/environmental/water/drinking/violations/previous\\_compliance\\_reports.htm](http://www.health.ny.gov/environmental/water/drinking/violations/previous_compliance_reports.htm)

Should you feel that you have been unlawfully denied access to records, you may appeal such denial in writing within 30 days to the Records Access Appeals Officer, Division of Legal Affairs, Empire State Plaza, 2438 Corning Tower, Albany, New York, 12237-0026.

If you require additional information or wish to discuss this matter further, please do not hesitate to contact me at (518) 474-8734.

Sincerely,



Danielle L. Rysedorph, Esq.  
Records Access Office

DLR/lm



**Environmental and Planning Consultants**

440 Park Avenue South  
7th Floor  
New York, NY 10016  
tel: 212 696-0670  
fax: 212 213-3191  
[www.akrf.com](http://www.akrf.com)

August 5, 2016

Records Access Office  
New York State Department of Health  
Corning Tower Room 2364  
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518-486-9144 (fax)

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Thank you in advance for your assistance and cooperation.

Sincerely,  
AKRF, Inc.

A handwritten signature in black ink that reads "Adrianna Bosco".

Adrianna Bosco  
Environmental Scientist

## Environmental Site Assessment – Site Questionnaire

Please answer all questions to the best of your actual knowledge. Please call with any questions or comments.

**AKRF Contact:** Eric Park  
**Office phone:** 800-899-2573  
**Cell phone:** 800-899-2573

**Person completing questionnaire:** American Museum of Natural History (AMNH) Personnel

**Relationship to the site:** Coordinated responses from Senior Director of Capital Projects & Construction and Senior Director of Human Resources

**Length of time associated with the site:** Sr. Dir. Capital Projects & Construction - About 5 years

- 1) When were the current buildings constructed? Do you have surveyed drawings? Blueprints? Geotechnical subsurface studies?

Section 11 – 1927  
Section 11B – 1992  
Section 15A – 1965  
Section 15 – 1903  
Section 17 – 1931  
Section 7A 1905  
Section 7 – 1900

No to all.

- 2) Have there been any renovation or additions since initial construction?

Requires Clarification.

- 3) Is there any historic fill on-site? (Construction and demolition debris? Ash? Dredge spoils?)

Not certain – not aware of any historic fill under any of the buildings.

- 4) Have there been any asbestos or lead assessment or abatement activities at the property? If there is asbestos on-site do you have an operations and maintenance plan?

Yes, we have an asbestos management plan.

- 5) Please describe land use at the property prior to construction of the current buildings.

City property.

- 6) Please describe activities at the site since construction of the current buildings, including previous tenants. Commercial activities such as dry cleaning and auto repair are of particular interest to this study.

AMNH is the first tenant. There is no dry cleaning and auto repair.

- 7) Do you know of specific chemicals that are present or once were present at the property? Yes, we have a full list.

- 8) Do you know of any environmental cleanups that have taken place at the property?

No.

- 9) Do municipal water and sewers service the site, or does it rely on private wells and/or a septic system?

AMNH is on the municipal water and service.

- 10) Are you aware of any wells, public or private, on or near the subject property? Not aware of any in this area.

- 11) Please indicate the nature and frequency of trash removal from the subject property.

Trash is removed from all areas daily. All trash is placed in a 30-yard compactor located in the yard and hauled by a private contractor as needed.

- 12) Are you aware of the current or former use, storage or production of any hazardous materials (petroleum products, solvents, paints, pesticides, etc) in any part of the subject site?

Yes, we have a full list.

- 13) Are any environmental permits or licenses held currently, or in the past, relating to the property?

Yes:

NYSDEC Pesticide Applicator Business Registration Certificate,  
NYSDEC Petroleum Bulk Storage Certificate, and  
NYSDEC Air Facility Registration Certificate.

- 14) Are there any registrations held for underground or above ground storage tanks at the property (NYSDEC, NYCDOB, FDNY)?

Yes we have registration for NYSDEC and FDNY.

- 15) Have any previous environmental reports, audits or investigations been performed at the site? If available, please provide copies, preferably prior to the site visit.

Yes: NYS onsite inspection for aboveground and underground diesel storage.

- 16) Does the site or any part of the site operate under a community right-to-know plan, safety plan, preparedness and prevention plan, spill prevention, countermeasure or control plan?

Yes to all.

- 17) Does the property have any activity and use limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?

NYC Landmarks and Parks

- 18) Are you aware of any reports regarding hydrogeologic or geotechnical conditions on the property or surrounding area?

No

- 19) Please provide copies of any notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the property or relating environmental liens encumbering the property.

Attached are correspondence:

NYSDEC – Re: Petroleum Bulk Storage; 05/02/2013, 05/24/2013, & 05/28/2013

EPA – Re: Information request during September 2010 audit

- 20) Please provide copies of any hazardous waste generator notices or reports.

Safety Director has on file.

Requires Clarification.

- 21) Please advise of:

- a. any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on or from the property,

No

- b. any pending, threatened or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property; and

None

- c. any notices from any government entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

Yes – NYSDEC notice, same as #19.

- 22) Have any environmental liens been filed or recorded against the property under federal, tribal, state or local law?

No

- 23) Are you aware of value reduction on the property due to environmental issues?

N/A

24) Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?

N/A

25) Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

No

26) Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the property?

No

**APPENDIX E**  
**CITY DIRECTORIES**

**200 Central Park West**

200 Central Park West  
New York, NY 10024

Inquiry Number: 4334893.1  
June 24, 2015

# The EDR-City Directory Abstract

## TABLE OF CONTENTS

### SECTION

Executive Summary

Findings

City Directory Images

*Thank you for your business.*  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

#### **Disclaimer - Copyright and Trademark Notice**

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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## EXECUTIVE SUMMARY

### DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2013. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 100 feet of the target property.

A summary of the information obtained is provided in the text of this report.

### RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

| <u>Year</u> | <u>Source</u>                                                          | <u>TP</u> | <u>Adjoining</u> | <u>Text Abstract</u> | <u>Source Image</u> |
|-------------|------------------------------------------------------------------------|-----------|------------------|----------------------|---------------------|
| 2013        | Cole Information Services                                              | X         | -                | X                    | -                   |
| 2008        | Cole Information Services                                              | X         | -                | X                    | -                   |
| 2006        | Hill-Donnelly Information Services                                     | X         | -                | X                    | -                   |
| 2000        | Cole Information Services                                              | X         | -                | X                    | -                   |
| 1998        | NYNEX Telephone                                                        | X         | -                | X                    | -                   |
| 1996        | NYNEX                                                                  | -         | -                | -                    | -                   |
| 1993        | NYNEX Telephone                                                        | -         | -                | -                    | -                   |
| 1988        | NYNEX Telephone                                                        | -         | X                | X                    | -                   |
| 1978        | New York Telephone                                                     | -         | -                | -                    | -                   |
| 1973        | New York Telephone                                                     | -         | X                | X                    | -                   |
| 1968        | New York Telephone                                                     | -         | -                | -                    | -                   |
| 1963        | New York Telephone                                                     | -         | X                | X                    | -                   |
| 1958        | New York Telephone                                                     | -         | -                | -                    | -                   |
| 1956        | New York Telephone                                                     | -         | -                | -                    | -                   |
| 1950        | New York Telephone                                                     | X         | -                | X                    | -                   |
| 1947        | New York Telephone                                                     | -         | -                | -                    | -                   |
| 1942        | New York Telephone                                                     | -         | -                | -                    | -                   |
| 1938        | New York Telephone                                                     | -         | -                | -                    | -                   |
| 1934        | R. L. Polk & Co.                                                       | -         | -                | -                    | -                   |
| 1931        | Manhattan and Bronx Directory Publishing Company Residential Directory | -         | X                | X                    | -                   |
| 1927        | New York Telephone                                                     | -         | -                | -                    | -                   |
| 1923        | R. L. Polk & Co.                                                       | -         | -                | -                    | -                   |
| 1920        | R. L. Polk & Co.                                                       | -         | -                | -                    | -                   |

# FINDINGS

## TARGET PROPERTY INFORMATION

### ADDRESS

200 Central Park West  
New York, NY 10024

### FINDINGS DETAIL

Target Property research detail.

## CENTRAL PARK

### **200 CENTRAL PARK**

| <u>Year</u> | <u>Uses</u>            | <u>Source</u>      |
|-------------|------------------------|--------------------|
| 1983        | Friedman C H arbitrato | New York Telephone |
|             | Jaye S                 | New York Telephone |

## CENTRAL PARK W

### **200 CENTRAL PARK W**

| <u>Year</u> | <u>Uses</u>                        | <u>Source</u>                      |
|-------------|------------------------------------|------------------------------------|
| 2013        | AMERICAN MUSEUM OF NATURAL HISTORY | Cole Information Services          |
|             | RABBIT HILL INC                    | Cole Information Services          |
|             | RICHTER ROBERT DDS                 | Cole Information Services          |
|             | YITZ AUTO REPAIR                   | Cole Information Services          |
| 2008        | ACTIVE AUTOMOTIVE CUSTOMIZING INC  | Cole Information Services          |
|             | JEROME LUSTBADER                   | Cole Information Services          |
|             | MAGGIO JOHN J DR                   | Cole Information Services          |
|             | RAWDIN ROBERT C                    | Cole Information Services          |
| 2006        | Active Automotive Customizing      | Hill-Donnelly Information Services |
|             | h Volk Kardyn                      | Hill-Donnelly Information Services |
|             | Kekalos A                          | Hill-Donnelly Information Services |
|             | Mon Myat MD I P                    | Hill-Donnelly Information Services |
|             | Multi Unit Address                 | Hill-Donnelly Information Services |
|             | Number 28 C h Boren E              | Hill-Donnelly Information Services |
|             | Richter Robert AA                  | Hill-Donnelly Information Services |
|             | Weinberg Laurence                  | Hill-Donnelly Information Services |
|             | Wienberg Laurence                  | Hill-Donnelly Information Services |
|             | Yitz Auto Repair is                | Hill-Donnelly Information Services |
| 2000        | A KEKALOS                          | Cole Information Services          |

## FINDINGS

| <u>Year</u> | <u>Uses</u>      | <u>Source</u>      |
|-------------|------------------|--------------------|
| 1983        | Frankel & Eidman | New York Telephone |
|             | MARKS B          | New York Telephone |

### CENTRAL PIKE W

#### 200 CENTRAL PIKE W

| <u>Year</u> | <u>Uses</u>                               | <u>Source</u>      |
|-------------|-------------------------------------------|--------------------|
| 1998        | ASTRO WATERPROOFING &<br>RESTORATION CORP | NYNEX Telephone    |
| 1950        | EIBSCHUTZ NATHAN MRS                      | New York Telephone |

### W CENTRAL PARK

#### 200 W CENTRAL PARK

| <u>Year</u> | <u>Uses</u>                | <u>Source</u>      |
|-------------|----------------------------|--------------------|
| 1983        | Atloy Corp                 | New York Telephone |
|             | Marks B                    | New York Telephone |
|             | Urban Vertical Parking Inc | New York Telephone |

## FINDINGS

### ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

### CENTRAL PARK W

#### 202 CENTRAL PARK W

| <u>Year</u> | <u>Uses</u>        | <u>Source</u>                                                          |
|-------------|--------------------|------------------------------------------------------------------------|
| 1973        | EVERS WALTER       | New York Telephone                                                     |
| 1931        | STAVISKY PAULINE F | Manhattan and Bronx Directory Publishing Company Residential Directory |
|             | SINGER CLARA       | Manhattan and Bronx Directory Publishing Company Residential Directory |
|             | SIMSON FANNIE C    | Manhattan and Bronx Directory Publishing Company Residential Directory |
|             | MAY RUTH           | Manhattan and Bronx Directory Publishing Company Residential Directory |

### CENTRAL PIKE W

#### 201 CENTRAL PIKE W

| <u>Year</u> | <u>Uses</u>        | <u>Source</u>   |
|-------------|--------------------|-----------------|
| 1988        | LEADER SIDNEY D DR | NYNEX Telephone |

#### 202 CENTRAL PIKE W

| <u>Year</u> | <u>Uses</u>       | <u>Source</u>      |
|-------------|-------------------|--------------------|
| 1973        | BLEIBTREU JACOB   | New York Telephone |
|             | COHEN GODFREY MRS | New York Telephone |
| 1963        | ROSEN WINIFRED    | New York Telephone |
|             | WINTON GABRIEL    | New York Telephone |

### W CENTRAL PARK

#### 202 W CENTRAL PARK

| <u>Year</u> | <u>Uses</u>        | <u>Source</u>                                                          |
|-------------|--------------------|------------------------------------------------------------------------|
| 1931        | Stavisky Pauline F | Manhattan and Bronx Directory Publishing Company Residential Directory |
|             | Singer Clara       | Manhattan and Bronx Directory Publishing Company Residential Directory |
|             | Simson Fannie C    | Manhattan and Bronx Directory Publishing Company Residential Directory |
|             | May Ruth           | Manhattan and Bronx Directory Publishing Company Residential Directory |

## FINDINGS

### TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

#### Address Researched

200 Central Park West

#### Address Not Identified in Research Source

1996, 1993, 1988, 1978, 1973, 1968, 1963, 1958, 1956, 1947, 1942, 1938, 1934, 1931, 1927, 1923, 1920

### ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

#### Address Researched

201 CENTRAL PIKE W

#### Address Not Identified in Research Source

2013, 2008, 2006, 2000, 1998, 1996, 1993, 1983, 1978, 1973, 1968, 1963, 1958, 1956, 1950, 1947, 1942, 1938, 1934, 1931, 1927, 1923, 1920

202 CENTRAL PARK W

2013, 2008, 2006, 2000, 1998, 1996, 1993, 1988, 1983, 1978, 1968, 1963, 1958, 1956, 1950, 1947, 1942, 1938, 1934, 1927, 1923, 1920

202 CENTRAL PIKE W

2013, 2008, 2006, 2000, 1998, 1996, 1993, 1988, 1983, 1978, 1968, 1958, 1956, 1950, 1947, 1942, 1938, 1934, 1931, 1927, 1923, 1920

202 W CENTRAL PARK

2013, 2008, 2006, 2000, 1998, 1996, 1993, 1988, 1983, 1978, 1973, 1968, 1963, 1958, 1956, 1950, 1947, 1942, 1938, 1934, 1927, 1923, 1920

**APPENDIX E-2:  
Phase II Work Plan**

# **Portions of the American Museum of Natural History and Theodore Roosevelt Park**

**NEW YORK, NEW YORK**

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## **Subsurface (Phase II) Investigation Sampling Protocol and Health and Safety Plan CEQR # 16DPR004M**

**AKRF Project Number: 12166**

**Prepared for:**

Venable LLP  
Rockefeller Center  
1270 Avenue of the Americas, 24<sup>th</sup> Floor  
New York, NY 10020

**Prepared by:**



**AKRF, Inc.**  
440 Park Avenue South, 7<sup>th</sup> Floor  
New York, NY 10016  
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**FEBRUARY 2017**

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- Figure 1 – Site Location
- Figure 2 – Site Plan & Proposed Sample Locations

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## 1.0 INTRODUCTION

This Sampling Protocol provides a scope of work for conducting a Subsurface (Phase II) Investigation at the Site comprising portions of the American Museum of Natural History (AMNH or the Museum) including Sections 1, 7A, 8, 11, 11A, 11B, 15, 15A, 16, and 17, Weston Pavilion, adjacent Museum yards, and an approximately 76,000-square foot (SF) portion of Theodore Roosevelt Park, defined legally as Tax Block 1130, part of Lot 1 (the Site). The Site, along with the remainder of the Museum buildings and grounds, is located at 200 Central Park West, on New York City-owned mapped parkland under the jurisdiction of the New York City Department of Parks and Recreation (NYC Parks), as shown on Figure 1. The Site boundary and the proposed sampling locations are shown on Figure 2.

This scope of work is intended to assess the potential for encountering hazardous materials during excavation that would be associated with the proposed construction of the Richard Gilder Center for Science, Education and Innovation, and associated improvements to adjacent museum buildings and Theodore Roosevelt Park. The scope is based on the findings of AKRF's November 2016 *Phase I Environmental Site Assessments* (ESA), described in Section 1.4 of this Sampling Protocol, conducted for the Site. The scope of this Sampling Protocol includes the collection of soil, soil vapor and, if encountered, groundwater samples for laboratory analysis. A Health and Safety Plan (HASP) is included as Appendix A to provide measures for protecting on-site personnel and the public during the implementation of the Sampling Protocol.

### 1.1 Site Characterization

Based on U.S. Geological Survey mapping, the Site lies at an elevation of approximately 85 to 90 feet above the North American Vertical Datum (NAVD) of 1988 (an approximation of mean sea level), with the ground sloping slightly down to the south-southwest. Based on USGS mapping, depth to bedrock in the vicinity of the Site is anticipated to be highly variable (approximately 5 to 35 feet below grade).

Based on previous studies (see Section 1.4), groundwater is anticipated to be first encountered approximately 20 to 30 feet below grade; however, shallower groundwater perched on bedrock may be present. Groundwater is anticipated to flow in a southwesterly direction toward the Hudson River, approximately 3,200 feet west of the Site. However, actual groundwater depth and flow beneath the Site can be affected by many factors including the A/B/C/D Line subway tunnels approximately 450 feet east of the Site (east-adjacent to the Site superblock beneath Central Park West), other subsurface features or obstructions such as basements or utilities, and other factors. Groundwater in Manhattan is not used as a source of potable water.

### 1.2 Proposed Project

The proposed project entails demolition of existing Museum buildings within the footprint of the proposed Richard Gilder Center for Science, Education and Innovation (Gilder Center), followed by: construction of a new building with one basement level; renovation in portions of adjacent Museum buildings within the Site; and improvements to the portion of Theodore Roosevelt Park within the Site. The proposed footprint of the Gilder Center is shown on Figure 2.

The proposed project is anticipated to require excavation to approximately 20 feet below grade for the construction of the Gilder Center, and shallower excavation (assumed to be less than 4 feet below grade) for Theodore Roosevelt Park improvements. Based on the expected depth to groundwater, limited dewatering, at most, is anticipated to be required for the proposed construction.

### 1.3 Site History

The Site has been used and exclusively occupied by the Museum since its statutory grant by New York State and ensuing lease agreement with New York City in 1877. The Museum buildings were constructed in stages on previously vacant land known as Manhattan Square, with the first building (Section 1) built in approximately 1877. Various additions were constructed between 1912 and 2000, with Sections 16, 18, and 20 added most recently. Throughout their history, the Site buildings were primarily used for exhibitions, research, maintenance, and educational purposes associated with the Museum. Sections 15 and 15A were identified as a storage structure and auto house on Sanborn maps dated 1951 through 1989. Though Sanborn maps indicated that Sections 15 and 15A were then used as a Power House and Boiler House through 1989, prior reports indicated that these buildings were converted into a garage in approximately 1933, and into Ichthyology Department space (the current use) in approximately 1965. Section 17 housed a coal-fired electric power plant until the 1960s, when the Museum was connected to Consolidated Edison electricity and steam heat.

### 1.4 Previous Environmental Investigations

*American Museum of Natural History – Portions of the American Museum of Natural History and Theodore Roosevelt Park, New York, New York - Phase I ESA, AKRF, November 2016*

The Phase I ESA reviewed a variety of sources including: current and historical land use maps; state and federal environmental regulatory databases; computerized New York City Fire Department and Buildings Department records; and previous studies, and included reconnaissance of the Site and its surroundings.

The Site buildings were constructed between 1902 and 2000 as parts of Museum expansions, and have been used as historically as exhibition, research, educational, and maintenance purposes associated with the Museum.

The Phase I ESA identified the following Recognized Environmental Conditions (RECs):

- Historical petroleum and chemical storage and use at the Site that might represent RECs included:

Section 16 – One 1,080-gallon diesel aboveground storage tank (AST) located within an epoxy-coated room with secondary containment berm;

Section 17 – One empty 250-gallon parts washer tank formerly containing trichloroethylene (TCE), and a 500-gallon double-walled diesel AST located on the first floor (a day tank associated with the AST located in Section 16); and

Exterior yard – Drums (up to 55 gallons) of ethanol, isopropanol, research space waste, and diesel in chemical storage sheds. Chemical storage sheds included secondary containment systems, and were regularly inspected to prevent spillage. Floor drains noted in the exterior yard and other areas throughout the Site were reportedly connected to the municipal sewer system and were in good condition with no evidence of releases or spills. Spill prevention kits were also identified in the drum storage area.

Regulatory databases identified the Museum as a small quantity generator (SQG) of hazardous waste from 2005 to 2016, and historical large quantity generator (LQG) of hazardous waste from 1984 to 2005. Chemical waste was disposed of by Clean Harbors, a permitted chemical waste hauler.

- The Museum was registered in the New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage (PBS) database with four ASTs and two underground storage tanks (USTs). Of these, three ASTs and one UST were located at the Site. These included: the two diesel ASTs discussed above; one closed-in-place 1,080-gallon double-wall steel UST with interstitial monitoring and high-level alarm in the exterior yard; and a former 50-gallon AST in Section 1 which was associated with the 1,080-gallon UST. The 50-gallon AST was registered with NYSDEC as being in-service, but was removed in September 2016. The on-site storage tanks were registered as having spill prevention measures including secondary containment in the form of curbs or double-wall construction, interstitial alarms, and high-level alarms, and no evidence of a release on or near the Site was noted.
- Other historical uses of the Site included use of Section 17 as a coal-fired electric power plant in (the Power House), and of Section 15 as an auto house. During the reconnaissance, no evidence of coal storage or residue was observed and there is, therefore, no present information indicating that the proposed project is expected to be complicated by the former presence of the power house and auto house.

The Phase I ESA also identified the following *de minimis* conditions:

- Arsenic-preserved hides were stored in dedicated areas on the fifth floor of Section 1, and on the third floor of Section 7A. Arsenic preservation was a common preservation technique for natural history collections between approximately 1930 and 1990. Preserved hides were stored in designated cabinets.
- Chemical storage in Section 8 was noted on the fifth floor in a NYC Fire Department (FDNY)-permitted room with a secondary containment berm. Chemicals stored included 1-butanol, ethyl alcohol, toluene, and other specimen preservation-related solvents in containers up to five gallons, with no record of historic release.
- Chemical storage in Section 11B was noted on the lower level and fourth floors and included nitrate film negatives and acetate film roll storage.
- Chemical storage noted in Section 15 in the Ichthyology collections included approximately 300,000 small jars (up to five gallons) of specimens preserved in ethanol or isopropanol, large containers and drums (up to 55 gallons) of ethanol used for specimen preservation, and other containers (generally 15 gallons or less) of organic solvents and solvent wastes.
- Chemical storage noted in Section 17 included small containers (up to one gallon) of polyester resins, spray paints, and acids in the exhibition production shop on the fifth floor.
- In addition to the chemical storage noted above, the exterior yard was used to store 55-gallon drums of waste cooking oil, and liquid nitrogen in a 3,000-gallon AST.
- A proposed 30,000-gallon UST was shown on 1962 engineering plans for Section 17 (the Power House). However, no documentation of the UST installation was found. Museum representatives did not believe the tank was installed, and the Museum was reported to have converted from coal to Consolidated Edison steam as a heating source around the time the plans were prepared; thus, it appears the proposed UST was never installed.
- An underground concrete structure located north-adjacent to Section 8, underneath a portion of Theodore Roosevelt Park, as shown on Figure 2, was reportedly used as a shooting range in the 1940s, and used for storage until the 2000s.

- The following petroleum storage tanks were located in Museum areas outside of the Site boundary: one in-service 6,000-gallon UST and one in-service 200-gallon AST, both containing diesel fuel for supplying an emergency generator. These tanks were located in a courtyard in the southwestern portion of the Museum (outside of the Site boundary). No odors, staining, or spills were noted in the vicinity of the AST, and no related historical spills were documented.
- Based on the age of the Museum sections and prior subsurface investigations which identified historic fill in the northern portion of Theodore Roosevelt Park, historic fill materials may also be present beneath the Site.

The petroleum and chemical storage areas on and near the Site are shown on Figure 2.

## 2.0 SCOPE OF WORK

Field work will be conducted under the site-specific Health and Safety Plan (Appendix A), in accordance with the Code of Federal Regulations, Title 29, Part 1910, Section 1910.120 (29 CFR 1910.120). The scope consists of a geophysical survey and the collection and laboratory analysis of soil, soil gas, and groundwater samples, if groundwater is encountered. Ten borings will be advanced for the collection and laboratory analysis of soil samples. If groundwater is encountered, up to five groundwater samples will be collected from temporary well points in the borings. In addition, seven borings will be advanced for collection of soil gas samples.

The proposed boring locations are shown on Figure 2. Soil borings SB-1 through SB-8 and soil gas borings SV-1 through SV-8 are proposed to be advanced within or near the footprint of the proposed Gilder Center, with their locations selected to characterize potential impacts from the RECs identified above. Soil borings SB-9 and SB-10 will be advanced in surrounding park areas which may be affected by improvements associated with the proposed project. The rationale for the proposed boring locations is detailed in Table 1:

**Table 1  
Proposed Investigation Locations**

| Boring Number   | Location                                                                                                            | Rationale                                                                                                                                                                                            |
|-----------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SB/GW-1<br>SV-1 | Within Gilder Center footprint, presumed downgradient of the exterior chemical storage area and Sections 16 and 17. | Assess soil, soil vapor, and groundwater (if encountered) in vicinity of the exterior chemical storage area and Sections 16 and 17, and historical uses of Section 17, including former power house. |
| SB/GW-2<br>SV-2 | Within Gilder Center footprint, presumed downgradient of the exterior chemical storage area and Sections 16 and 17. | Assess soil, soil vapor, and groundwater (if encountered) in vicinity of the exterior chemical storage area and Sections 16 and 17, and historical uses of Section 17, including former power house. |
| SB-3<br>SV-3    | Within Gilder Center footprint, presumed downgradient of Section 15 and the exterior chemical storage area.         | Assess soil and soil vapor in vicinity of Section 15 and the exterior chemical storage area, and historical uses of Section 15, including former auto house.                                         |
| SB/GW-4<br>SV-4 | Within Gilder Center footprint, presumed downgradient of Section 15 and the exterior chemical storage area.         | Assess soil, soil vapor, and groundwater (if encountered) in vicinity of Section 15 and the exterior chemical storage area, and historical uses of Section 15, including former auto house.          |
| SB/GW-5<br>SV-5 | Within Gilder Center footprint, presumed downgradient of closed-in-place UST and Section 15.                        | Assess soil, soil vapor, and groundwater (if encountered) in vicinity of the closed-in-place UST, and historical uses of Section 15, including former auto house, and past and present               |

| <b>Boring Number</b> | <b>Location</b>                                                                                                                                    | <b>Rationale</b>                                                                                                                                                                                                                                            |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                      |                                                                                                                                                    | chemical storage in Section 15.                                                                                                                                                                                                                             |
| SB-6<br>SV-6         | In Theodore Roosevelt Park, presumed downgradient of Sections 16 and 17.                                                                           | Assess soil and soil vapor in vicinity of historical uses of Section 17, including former power house, and past and present chemical and petroleum storage in Sections 16 and 17.                                                                           |
| SB/GW-7<br>SV-7      | Within Gilder Center footprint, adjacent to former shooting range, and presumed downgradient of Section 15 and the exterior chemical storage area. | Assess soil, soil vapor, and groundwater (if encountered) in vicinity of the former shooting range, historical uses of Section 15, including former auto house, and past and present chemical storage in Section 15 and the exterior chemical storage area. |
| SB-8                 | Within Gilder Center footprint, adjacent to closed-in-place UST, presumed downgradient of former 50-gallon AST.                                    | Assess soil in vicinity of the closed-in-place UST, and former 50-gallon AST.                                                                                                                                                                               |
| SB-9                 | In Theodore Roosevelt Park, north of Section 17.                                                                                                   | Characterize soil conditions in the northern portion of the Site.                                                                                                                                                                                           |
| SB-10                | In Theodore Roosevelt Park, presumed downgradient of off-site Museum petroleum storage tanks, south of Section 8.                                  | Characterize soil conditions in the southern portion of the Site, and assess soil associated with other Museum petroleum storage tanks (outside of Site boundary).                                                                                          |

## 2.1 Geophysical Survey

A geophysical survey will be conducted prior to drilling throughout accessible areas to clear the proposed sampling locations for subsurface utilities and to locate the known 1,080-gallon closed-in-place UST (registered with NYSDEC as a steel tank) and any additional USTs. The geophysical survey will comprise a ground-penetrating radar (GPR) survey and a magnetometer survey. GPR uses electromagnetic wave propagation and scattering to image and identify changes in electrical and magnetic properties in the ground. The magnetometer survey works on the premise that the subsurface has a relatively static magnetic field, and certain forces interrupt that field. Both systems are widely used for locating underground utility lines, steel USTs, etc.

## 2.2 Borings

A track-mounted Geoprobe<sup>®</sup> direct push rig will be used to advance the borings. Locations will be finalized based on field observations, e.g., access considerations, utilities, etc. Utility markouts will be requested from the New York City/Long Island One Call Center prior to the commencement of drilling. Some borings may be relocated or advanced using a Geoprobe<sup>®</sup> remote rig, manually operated slide hammer or hand auger if limited accessibility (i.e. narrow passageways and/or numerous nearby utilities) is encountered.

Borings SB-1 through SB-8 will be advanced to approximately 20 feet below grade (the anticipated maximum depth of excavation for the Gilder Center) or refusal, whichever is encountered first. Borings SB-9 and SB-10 will be advanced to approximately 4 feet below grade (the anticipated maximum depth of excavation for park improvements). If refusal occurs, an additional boring will be advanced in the vicinity of the initial boring to achieve the intended final boring depth.

## 2.3 Soil Sampling

Soil cores will be collected using a stainless steel, macro-core sampler with internal acetate liners. The cores will be field-screened using a photoionization detector (PID) to measure relative concentrations of volatile organic compounds (VOCs) in the soil. AKRF field personnel will

record and document subsurface conditions and soil samples will be chosen from each boring for laboratory analysis based on any field observations (e.g., odor and staining) and/or PID readings. If no evidence of contamination (visual, odor or PID readings) is apparent, the samples will be selected as follows:

- For deep borings SB-1 to SB-8, the samples will be selected:
  - From a 2-foot interval within a historic fill layer; and
  - From the 2-foot interval just above the water table or 2-foot interval at the bottom of the soil boring, whichever is encountered first.
- For shallow borings SB-9 and SB-10 advanced in the park, only one soil sample will be selected from the 2-foot interval within a historic fill layer.

Samples slated for analysis will be placed in laboratory-supplied containers and shipped in coolers in accordance with EPA protocols to a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory. Soil samples will be analyzed for Target Compound List (TCL) VOCs by EPA Method 8260, TCL semi-volatile organic compounds (SVOCs) by EPA Method 8270, PCBs by EPA Method 8082, pesticides by EPA Method 8081, and Target Analyte List (TAL) metals.

Following completion, the borings will be backfilled with drill cuttings and patched at the surface using asphalt or cement mix. Any soil cuttings exhibiting evidence of gross contamination (e.g., sheen or product) will be drummed for off-site disposal as investigation-derived waste.

## 2.4 Groundwater Sampling

If groundwater is encountered in the borings, up to five groundwater samples will be collected from temporary well points installed in the borings. The proposed locations are shown on Figure 2. The samples will be collected using dedicated sampling equipment. Prior to sampling, each well will be purged until turbidity of the water has decreased, and approximately three well volumes have been removed.

Each sample will be labeled, sealed, and placed in a chilled cooler for shipment to a NYSDOH ELAP-certified laboratory. The groundwater samples will be analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, pesticides by EPA Method 8081, and TAL metals (both total and filtered analysis).

## 2.5 Soil Gas Sampling

Seven soil gas samples will be collected at the approximate locations shown on Figure 2. The soil vapor probes will be installed by advancing an expendable drive point using a Geoprobe® to approximately 21 feet below grade (one foot below the anticipated depth of excavation), one foot above the water table, or refusal, whichever is encountered first. The drive point will then be retracted approximately 12 inches to create a void space.

A 6-inch stainless steel screen implant with connected Teflon tubing will be installed through the Geoprobe rods and threaded into the drive point. The sampling tubing will extend from the end of the screen to above grade. The push probe rods will then be removed and the boring will be backfilled with clean silica sand to 1 foot above the screen. Hydrated bentonite will be used to fill the remaining void around the sampling tubing to ground surface.

Prior to sample collection, purging of three sampler volumes will be conducted using a peristaltic pump. During purging, an inverted five-gallon bucket will be placed over the sampling point and

helium gas will be introduced through a small hole in the bucket to saturate the atmosphere around the sample port with helium gas. Purged vapors will be collected into a Tedlar bag and field-screened for organic vapors using a PID. The purged air will also be monitored using a portable helium detector to check for short-circuiting of ambient air into the vapor sampling point. If the purged soil gas contains greater than 10% helium, additional bentonite will be used to enhance the surface seal, and the point will be retested.

Following purging, the samples will be collected using 6-liter Summa canisters equipped with a vacuum gauge and flow controller calibrated for a one-hour sampling period. Vacuum readings will be collected at the start and end of the sampling period. At the completion of the survey, the sampling tubing will be cut off below the ground surface and the surface will be restored.

The Summa canisters will be labeled, sealed, and shipped to a NYSDOH ELAP-certified laboratory. The soil gas samples will be analyzed for VOCs by EPA Method TO-15.

Field observations and/or analytical results may reveal conditions indicative of a spill reportable to NYSDEC. Under New York State statute, AKRF would be obligated to report any such spill within two hours of discovery.

### **3.0 QUALITY ASSURANCE/QUALITY CONTROL PLAN**

#### **3.1 Laboratory Methods**

A New York State-certified laboratory will perform all analytical work. The laboratory will operate a Quality Assurance/Quality Control (QA/QC) program that will consist of proper laboratory practices (including the required chain-of-custody), an internal quality control program, and external quality control audits by New York State.

#### **3.2 Field Quality Control Sampling**

For QA/QC purposes, one trip blank per day of sampling will be sent with the collected samples for laboratory analysis. The trip blank(s) would be analyzed only for VOCs by EPA Method 8260 to check for contamination during transport and sampling procedures.

#### **3.3 Sample Custody**

To ensure the integrity of samples taken, a strict chain of custody record must be maintained on each sample. This begins after sampling with the entry in the sampler's field log book of the sampling details:

- a) Date and time of sampling;
- b) Sample location (as specific as possible);
- c) The unique sample number, size, and container(s) used;
- d) Sample description;
- e) Weather conditions (if applicable); and
- f) Any additional comments.

In addition, a record must be kept of the sample's progress from the sample site to the laboratory where it will be analyzed. This is the chain-of-custody form. The form must include:

- a) The sample number;

- b) The sampler's name;
- c) Date and time of sampling;
- d) Location at which the sample was taken, including the address, if possible;
- e) A description of the sample, as best known;
- f) Signatures of people involved in the chain of possession; and
- g) Inclusive dates of possession of each person in the chain.

The chain-of-custody form must accompany the sample throughout its trip to the laboratory. If the sample(s) must be shipped to a laboratory, most shipping agents will refuse to sign or separately carry the chain-of-custody form. In this one case, it is permissible to put the chain-of-custody form into the box with the sample and then seal the box. The recipient of the box, the laboratory's sample custodian, can then attest to the box's arrival still sealed and unopened.

Accompanying the chain-of-custody record, or included in it, must be a request to the laboratory for sample analyses. Information required includes:

- a) Name of person receiving the sample;
- b) Laboratory sample number;
- c) Date of sample receipt;
- d) Sample allocation; and
- e) Analyses to be performed.

Finally, on arrival at the laboratory, the sample custodian must enter the sample in the laboratory's sample log book. The chain-of-custody should be kept on file at the laboratory.

### **3.4 Field Decontamination Procedures**

To avoid contamination and cross-contamination of samples, all sampling equipment will be cleaned before collection of each sample. The following field procedures will be followed for all samples:

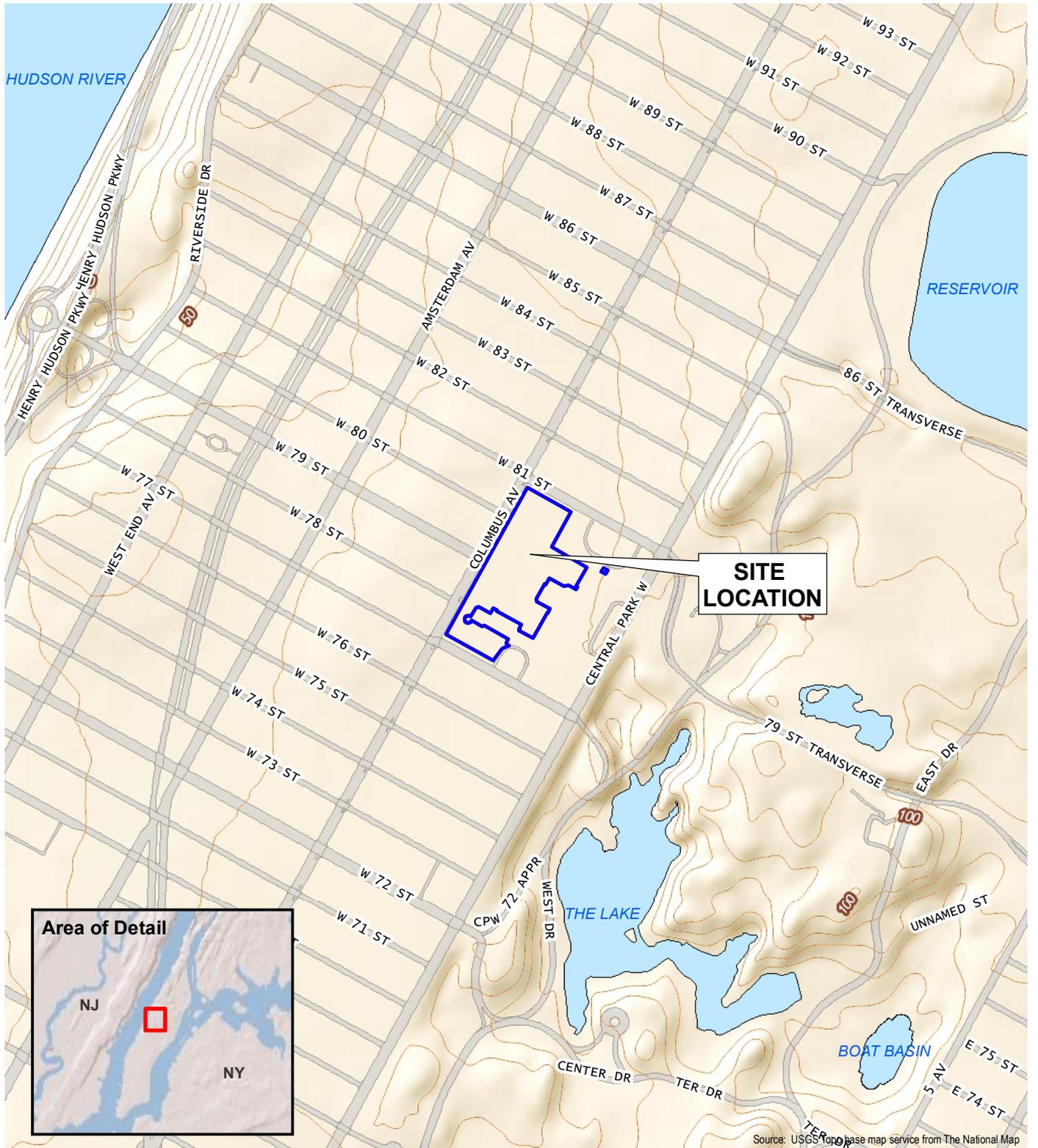
1. Scrub using tap water/Simple Green<sup>®</sup> mixture and bristle brush
2. Rinse with tap water.
3. Scrub again with tap water/ Simple Green<sup>®</sup> and bristle brush.
4. Rinse with tap water.
5. Rinse with distilled water.
6. Air dry the equipment.

## **4.0 REPORT**

A subsurface investigation report will be prepared following the completion of the sampling and analysis program and will be submitted to NYCDEP for approval. The report will describe field procedures and observations, include soil boring logs, a site plan showing sample locations, summarize analytical results, discuss their significance, and provide appropriate recommendations.

## FIGURES

©2014 AKRF, Inc. Environmental Consultants W:\Projects\12166 - AMNH EXPANSION\Technical\GIS and Graphics\Hazmat\12166 Fig 1 Phase 1 Site Location.mxd



Portions of the American Museum of Natural History  
and Theodore Roosevelt Park  
New York, New York



Environmental Consultants  
440 Park Avenue South, New York, N.Y. 10016

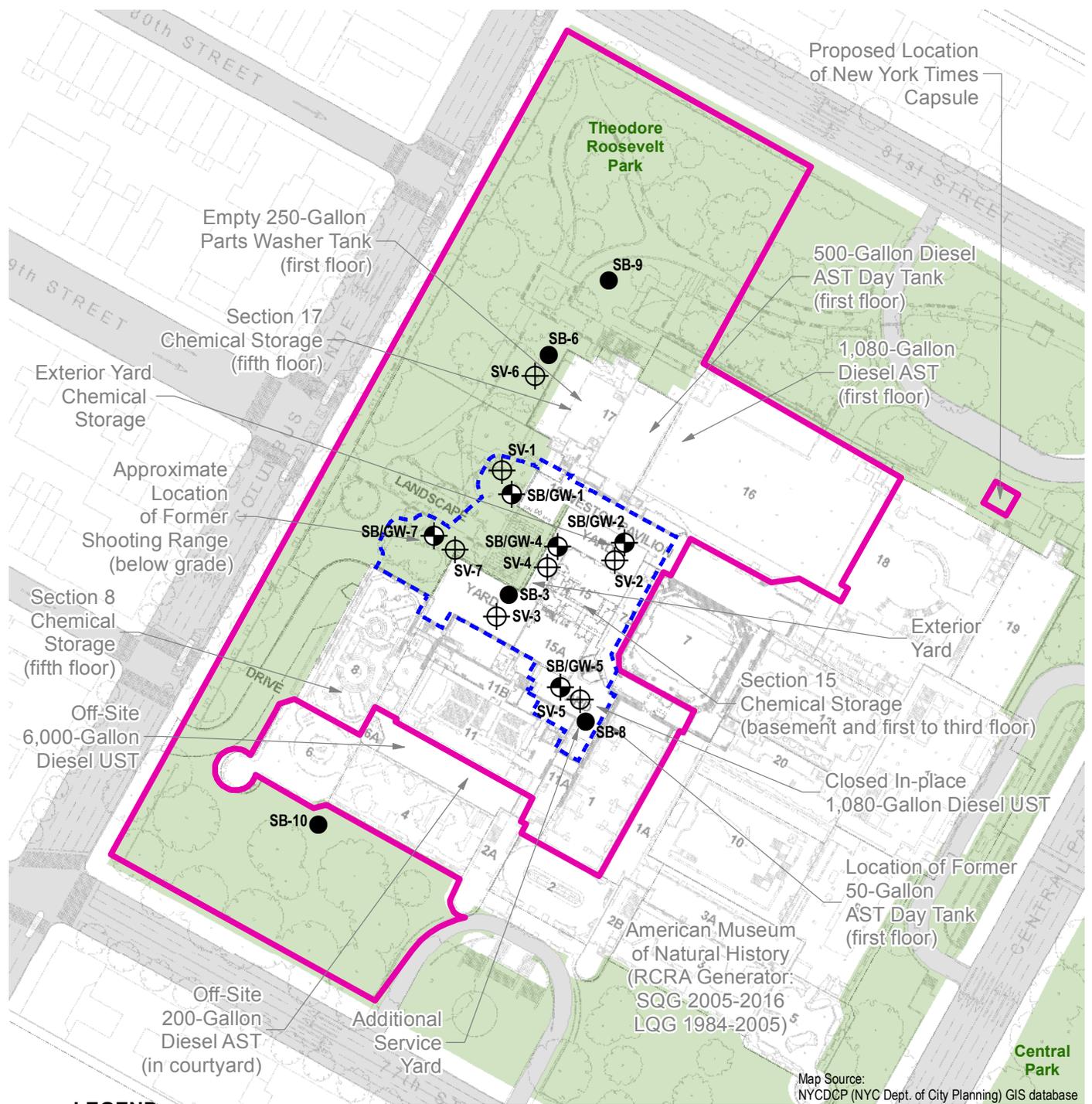
DATE  
**1/12/2017**

PROJECT No.  
**12166**

FIGURE  
**1**

**SITE LOCATION**

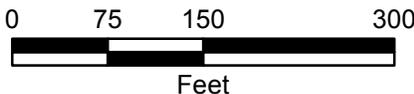
© 2017 AKRF, Inc. Environmental Consultants W:\Projects\12166 - AMNH EXPANSION\Technical\GIS and Graphics\Hazmat\12166 Fig 2 Site Plan & Proposed Sample Locations.mxd



**LEGEND**

-  PROPOSED NEW BUILDING FOOTPRINT
-  PROJECT SITE BOUNDARY
-  PROPOSED SOIL BORING
-  PROPOSED SOIL/GROUNDWATER BORING
-  PROPOSED SOIL VAPOR SAMPLE

UST UNDERGROUND STORAGE TANK  
AST ABOVEGROUND STORAGE TANK



Map Source: NYCDP (NYC Dept. of City Planning) GIS database

Portions of the American Museum of Natural History and Theodore Roosevelt Park  
New York, New York



**SITE PLAN & PROPOSED SAMPLE LOCATIONS**

Environmental Consultants  
440 Park Avenue South, New York, N.Y. 10016

|             |           |
|-------------|-----------|
| DATE        | 1/12/2017 |
| PROJECT No. | 12166     |
| FIGURE      | 2         |

**APPENDIX A**  
**HEALTH AND SAFETY PLAN**

**American Museum of Natural History (AMNH)  
Richard Gilder Center for Science, Education and Innovation**

**NEW YORK, NEW YORK**

---

**Health and Safety Plan**

**CEQR # 16DPR004M**

**AKRF Project Number: 12166**

**Prepared for:**

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Rockefeller Center  
1270 Avenue of the Americas, 24<sup>th</sup> Floor  
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212-696-0670

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**FEBRUARY 2017**

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## FIGURES

Figure 1 – Site Location and Nearest Hospital

## APPENDICES

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## **1.0 INTRODUCTION**

The Site comprises portions of the American Museum of Natural History (AMNH or the Museum) including Sections 1, 7A, 8, 11, 11A, 11B, 15, 15A, 16, and 17, Weston Pavilion, adjacent Museum yards, and an approximately 76,000-square foot (SF) portion of Theodore Roosevelt Park, defined legally as Tax Block 1130, part of Lot 1. The Site, along with the remainder of the Museum buildings and grounds, is located at 200 Central Park West, on New York City-owned mapped parkland under the jurisdiction of the New York City Department of Parks and Recreation (NYC Parks), as shown on Figure 1.

A Phase I Environmental Site Assessment (ESA) conducted for the Site (AKRF, Inc., November 2016) identified potential sources of contamination, including: past and present on-site chemical storage and hazardous waste generation; past and present on-site petroleum storage; a historical on-site power plant; and a historical on-site auto house.

The subsurface investigation will include the collection of soil, groundwater (if encountered), and soil gas samples. This environmental Health and Safety Plan (HASP) has been developed for implementation during site investigation activities conducted by all personnel on-site, both AKRF employees and others. This HASP does not discuss routine health and safety issues common to general construction/excavation, including but not limited to slips, trips, falls, shoring, and other physical hazards.

All AKRF employees are directed that all work must be performed in accordance with the AKRF's Generic HASP and all OSHA applicable regulations for the work activities required for the project. All project personnel are furthermore directed that they are not permitted to enter Permit Required Confined Spaces (as defined by OSHA). For issues unrelated to contaminated materials, all non-AKRF employees are to be bound by all applicable OSHA regulations as well as any more stringent requirements specified by their employer in their corporate HASP or otherwise. AKRF is not responsible for providing oversight for issues unrelated to contaminated materials for non-employees. This oversight shall be the responsibility of the employer of that worker or other official designated by that employer.

## 2.0 HEALTH AND SAFETY GUIDELINES AND PROCEDURES

### 2.1 Hazard Evaluation

#### 2.1.1 Hazards of Concern

| Check all that apply                                                     |                                                         |                                               |
|--------------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------|
| <input checked="" type="checkbox"/> Organic Chemicals                    | <input checked="" type="checkbox"/> Inorganic Chemicals | <input type="checkbox"/> Radiological         |
| <input type="checkbox"/> Biological                                      | <input type="checkbox"/> Explosive/Flammable            | <input type="checkbox"/> Oxygen Deficient Atm |
| <input checked="" type="checkbox"/> Heat Stress                          | <input checked="" type="checkbox"/> Cold Stress         | <input type="checkbox"/> Carbon Monoxide      |
| Comments:<br>No personnel are permitted to enter permit confined spaces. |                                                         |                                               |

#### 2.1.2 Physical Characteristics

| Check all that apply                       |                                           |                                 |
|--------------------------------------------|-------------------------------------------|---------------------------------|
| <input checked="" type="checkbox"/> Liquid | <input checked="" type="checkbox"/> Solid | <input type="checkbox"/> Sludge |
| <input checked="" type="checkbox"/> Vapors | <input type="checkbox"/> Unknown          | <input type="checkbox"/> Other  |
| Comments:                                  |                                           |                                 |

#### 2.1.3 Hazardous Materials

| Check all that apply                                          |                                           |                                 |                                               |                                                 |                                   |
|---------------------------------------------------------------|-------------------------------------------|---------------------------------|-----------------------------------------------|-------------------------------------------------|-----------------------------------|
| Chemicals                                                     | Solids                                    | Sludges                         | Solvents                                      | Oils                                            | Other                             |
| <input type="checkbox"/> Acids                                | <input checked="" type="checkbox"/> Ash   | <input type="checkbox"/> Paints | <input checked="" type="checkbox"/> Halogens  | <input type="checkbox"/> Transformer            | <input type="checkbox"/> Lab      |
| <input type="checkbox"/> Caustics                             | <input type="checkbox"/> Asbestos         | <input type="checkbox"/> Metals | <input checked="" type="checkbox"/> Petroleum | <input type="checkbox"/> Other DF               | <input type="checkbox"/> Pharm    |
| <input type="checkbox"/> Pesticides                           | <input type="checkbox"/> Tailings         | <input type="checkbox"/> POTW   | <input type="checkbox"/> Other                | <input type="checkbox"/> Motor or Hydraulic Oil | <input type="checkbox"/> Hospital |
| <input checked="" type="checkbox"/> Petroleum                 | <input checked="" type="checkbox"/> Other | <input type="checkbox"/> Other  |                                               | <input type="checkbox"/> Gasoline               | <input type="checkbox"/> Rad      |
| <input type="checkbox"/> Inks                                 | Fill material                             |                                 |                                               | <input checked="" type="checkbox"/> Fuel Oil    | <input type="checkbox"/> MGP      |
| <input type="checkbox"/> PCBs                                 |                                           |                                 |                                               |                                                 | <input type="checkbox"/> Mold     |
| <input checked="" type="checkbox"/> Metals                    |                                           |                                 |                                               |                                                 | <input type="checkbox"/> Cyanide  |
| <input checked="" type="checkbox"/> Other:<br>VOCs &<br>SVOCs |                                           |                                 |                                               |                                                 |                                   |

### 2.1.4 Chemicals of Concern

| Chemicals                                                                                                                                                                                                          | REL/PEL/STEL                                                  | Health Hazards                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Benzene                                                                                                                                                                                                            | REL = 0.1 ppm<br>PEL = 1 ppm<br>STEL = 5 ppm                  | Irritation eyes, skin, nose, respiratory system; dizziness; headache, nausea, staggered gait; anorexia, lassitude, dermatitis; bone marrow depression, potential occupational carcinogen.                                                                                            |
| Toluene                                                                                                                                                                                                            | REL = 100 ppm<br>PEL = 200 ppm<br>STEL = 300 ppm              | Irritation eyes, nose; lassitude, confusion, euphoria, dizziness, headache; dilated pupils, lacrimation (discharge of tears); anxiety, muscle fatigue, insomnia; paresthesia (skin tingling or numbness); dermatitis; liver, kidney damage.                                          |
| Ethylbenzene                                                                                                                                                                                                       | REL = 100 ppm<br>PEL = 100 ppm                                | Irritation eyes, skin, mucous membrane; headache; dermatitis; narcosis, coma.                                                                                                                                                                                                        |
| Xylenes                                                                                                                                                                                                            | REL = 100 ppm<br>PEL = 100 ppm                                | Irritation eyes, skin, nose, throat; dizziness, excitement, drowsiness, poor coordination, staggering gait; corneal vacuolization; anorexia, nausea, vomiting, abdominal pain; dermatitis.                                                                                           |
| Fuel Oil                                                                                                                                                                                                           | REL = 350 mg/m <sup>3</sup><br>PEL = 400 ppm                  | Nausea, irritation – eyes, hypertension, headache, light-headedness, loss of appetite, poor coordination; long-term exposure – kidney damage, blood clotting problems; potential carcinogen.                                                                                         |
| Lead                                                                                                                                                                                                               | REL=0.1 mg/m <sup>3</sup><br>PEL=0.05 mg/m <sup>3</sup>       | Weakness, lassitude, insomnia; facial pallor, pale eye, anorexia, low-weight, malnutrition, constipation, abdominal pain, colic; anemia; gingival lead line; tremors, paralysis wrists and ankles; encephalopathy; kidney disease; irritation eyes; hypotension.                     |
| Mercury                                                                                                                                                                                                            | REL = 0.1 mg/m <sup>3</sup><br>PEL = 0.05 mg/m <sup>3</sup>   | Irritation eyes, skin; cough, chest pain, dyspnea (breathing difficulty), bronchitis, pneumonitis; tremor, insomnia, irritability, indecision, headache, lassitude (weakness, exhaustion); stomatitis, salivation; gastrointestinal disturbance, anorexia, weight loss; proteinuria. |
| Arsenic                                                                                                                                                                                                            | REL = 0.002 mg/m <sup>3</sup><br>PEL = 0.01 mg/m <sup>3</sup> | Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, respiratory irritation, hyperpigmentation of skin; potential occupational carcinogen                                                                                                   |
| Polycyclic Aromatic Hydrocarbons (PAHs)                                                                                                                                                                            | PEL = 5 mg/m <sup>3</sup>                                     | Harmful effects to skin, bodily fluids, and ability to fight disease, reproductive problems; [potential occupational carcinogen]                                                                                                                                                     |
| Trichloroethylene (TCE)                                                                                                                                                                                            | REL = 25 ppm<br>PEL = 100 ppm<br>STEL = 200 ppm               | Irritation eyes, skin; headache, visual disturbance, weakness, exhaustion, dizziness, tremor, drowsiness, nausea, vomiting; dermatitis; cardiac arrhythmias, paresthesia; liver injury; potential occupational carcinogen                                                            |
| Comments:<br>REL = NIOSH Recommended Exposure Limit<br>PEL = OSHA Permissible Exposure Limit<br>STEL = OSHA Short Term Exposure Limit<br>ppm = parts per million<br>mg/m <sup>3</sup> = milligrams per cubic meter |                                                               |                                                                                                                                                                                                                                                                                      |

## 2.2 Designated Personnel

AKRF will appoint one of its on-site personnel as the Site Safety Officer (SSO). This individual will be responsible for the implementation of the HASP. The SSO will have a 4-year college degree in occupational safety or a related science/engineering field, and experience in

implementation of air monitoring and hazardous materials sampling programs. Health and safety training required for the SSO and all field personnel are outlined in Section 2.3 of this HASP.

### **2.3 Training**

All personnel who enter the work area while intrusive activities are being performed will have completed a 40-hour training course that meets OSHA requirements of the Code of Federal Regulations, Title 29 (29 CFR) Part 1910, Occupational Safety and Health Standards. In addition, all personnel will have up-to-date 8-hour refresher training. The training will allow personnel to recognize and understand the potential hazards to health and safety. All field personnel must attend a training program, whose purpose is to:

- Make them aware of the potential hazards they may encounter;
- Provide the knowledge and skills necessary for them to perform the work with minimal risk to health and safety; Make them aware of the purpose and limitations of safety equipment; and
- Ensure that they can safely avoid or escape from emergencies.

Each member of the field crew will be instructed in these objectives before he/she goes onto the Site. A site safety meeting will be conducted at the start of the project. Additional meetings shall be conducted, as necessary, for new personnel working at the Site.

### **2.4 Medical Surveillance Program**

All AKRF and subcontractor personnel performing field work involving subsurface disturbance at the Site are required to have passed a complete medical surveillance examination in accordance with 29 CFR 1910.120 (f). A physician's medical release for work will be confirmed by the SSO before an employee can begin site activities. The medical release shall consider the type of work to be performed and the required PPE. The medical examination will, at a minimum, be provided annually and upon termination of hazardous waste site work.

### **2.5 Site Work Zones**

During any activities involving subsurface disturbance, the work area must be divided into various zones to prevent the spread of contamination, ensure that proper protective equipment is donned, and provide an area for decontamination.

The Exclusion Zone is defined as the area where exposure to impacted media could be encountered. The Contamination Reduction Zone (CRZ) is the area where decontamination procedures take place and is located next to the Exclusion Zone. The Support Zone is the area where support facilities such as vehicles, fire extinguishers, and first aid supplies are located. The emergency staging area (part of the Support Zone) is the area where all workers on-site would assemble in the event of an emergency. A summary of these areas is provided below. These zones may be changed by the SSO, depending on that day's activities. All field personnel will be informed of the location of these zones before work begins.

| <b>Task</b>                                                                                                                                                              | <b>Exclusion Zone</b>       | <b>CRZ</b>                  | <b>Support Zone</b> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------|---------------------|
| <b>Soil Borings</b>                                                                                                                                                      | <b>10 ft from drill rig</b> | <b>25 ft from drill rig</b> | <b>As Needed</b>    |
| Comments:<br>Control measures such as “caution tape” and/or traffic cones will be placed around the perimeter of the work area when work is being done in a public area. |                             |                             |                     |

## 2.6 Air Monitoring

The purpose of the air monitoring program is to identify any exposure of the field personnel to potential environmental hazards in the soil and groundwater. Results of the air monitoring will be used to determine the appropriate response action, if needed.

### 2.6.1 Volatile Organic Compounds

A photoionization detector (PID) will be used to perform air monitoring during soil disturbance activities to determine airborne levels of total VOCs. The PID will be calibrated at the start of the work day with a 100 ppm isobutylene standard.

### 2.6.2 Work Zone Air Monitoring

Real time air monitoring will be performed with the PID. Measurements will be taken prior to commencement of work and continuously during the work, as outlined in the following table. Measurements will be made as close to the workers as practicable and at the breathing height of the workers. The SSO shall set up the equipment and confirm that it is working properly. His/her designee may oversee the air measurements during the day. The initial measurement for the day will be performed before the start of work and will establish the background level for that day. The final measurement for the day will be performed after the end of work. The action levels and required responses are listed in the following table.

| <b>Instrument</b> | <b>Action Level</b>                | <b>Response Action</b>                                     |
|-------------------|------------------------------------|------------------------------------------------------------|
| PID               | Less than 10 ppm in breathing zone | Level D or D-Modified                                      |
|                   | Between 10 ppm and 50 ppm          | Level C                                                    |
|                   | More than 50 ppm                   | Stop work. Resume work when readings are less than 50 ppm. |

## 2.7 Personal Protection Equipment

The personal protection equipment required for various kinds of site investigation tasks are based on 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response, Appendix B, “General Description and Discussion of the Levels of Protection and Protective Gear.”

AKRF field personnel and other site personnel shall wear, at a minimum, Level D personal protective equipment. The protection will be based on the air monitoring described in Section 2.6.

| LEVEL OF PROTECTION & PPE                                                                                                                                                                                     | Task                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Level D</b><br><input checked="" type="checkbox"/> Steel Toe Shoes<br><input checked="" type="checkbox"/> Hard Hat<br>(within 25 ft of drill rig)<br><input checked="" type="checkbox"/> Work Gloves       | Soil Boring/Water Sampling                                                          |
| <b>Level D – Modified (in addition to Level D)</b><br><input checked="" type="checkbox"/> Tyvek Coveralls<br><input type="checkbox"/> Saranex Coveralls                                                       | Soil Boring/Water Sampling, PID readings elevated above background but below 10 ppm |
| <b>Level C (in addition to Level D)</b><br><input checked="" type="checkbox"/> Half-Face Respirator OR<br><input checked="" type="checkbox"/> Full Face Respirator<br><input type="checkbox"/> Full-Face PAPR | If PID > 10 ppm (breathing zone)                                                    |
| Comments:<br>Cartridges to be changed out at least once per shift unless warranted beforehand (e.g., more difficult to breathe or any odors detected).                                                        |                                                                                     |

**2.8 General Work Practices**

To protect the health and safety of the field personnel, field personnel will adhere to the guidelines listed below during activities involving subsurface disturbance:

- Eating, drinking, and chewing gum or tobacco are prohibited except in designated areas on the Site. These areas will be designated by the SSO. Smoking, including e-cigarettes, is prohibited throughout the Site.
- Workers must wash their hands thoroughly on leaving the work area and before eating, drinking, or any other such activity.
- The workers should shower as soon as possible after leaving the Site. Contact with contaminated or suspected surfaces should be avoided.
- The buddy system should always be used; each buddy should watch for signs of fatigue, exposure, and heat/cold stress.

### 3.0 EMERGENCY PROCEDURES AND EMERGENCY RESPONSE PLAN

The field crew will be equipped with emergency equipment, such as a first aid kit and disposable eye washes. In the case of a medical emergency, the SSO will determine the nature of the emergency and he/she will have someone call for an ambulance, if needed. If the nature of the injury is not serious, i.e., the person can be moved without expert emergency medical personnel, he/she should be taken to a hospital by on-site personnel. Directions to the hospital are provided below, and a hospital route map is attached.

#### 3.1 HOSPITAL DIRECTIONS

|                          |                                                                                                                                                              |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hospital Name:</b>    | Mount Sinai West                                                                                                                                             |
| <b>Phone Number:</b>     | (212) 523-4000                                                                                                                                               |
| <b>Address/Location:</b> | 1000 Tenth Avenue – New York, New York<br>(The Emergency Department is located on West 59 <sup>th</sup> Street between Columbus Avenue and Amsterdam Avenue) |
| <b>Directions:</b>       | 1. Go SOUTH on <i>Columbus Avenue</i><br>2. Turn RIGHT onto <i>West 59<sup>th</sup> Street</i><br>The Emergency Department entrance will be on the LEFT.     |

#### 3.2 EMERGENCY CONTACTS

| Company                                           | Individual Name | Title            | Contact Number                               |
|---------------------------------------------------|-----------------|------------------|----------------------------------------------|
| AKRF                                              | Marc Godick     | Project Director | 914-922-2356 (office)                        |
|                                                   | Eric Park       | SSO              | 646-388-9532 (office)<br>646-752-5332 (cell) |
| Ambulance, Fire Department<br>& Police Department | -               | -                | 911                                          |
| NYSDEC Spill Hotline                              | -               | -                | 800-457-7362                                 |

### 4.0 APPROVAL & ACKNOWLEDGMENTS OF HASP

#### APPROVAL

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
AKRF Project Manager

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
AKRF Health and Safety Officer

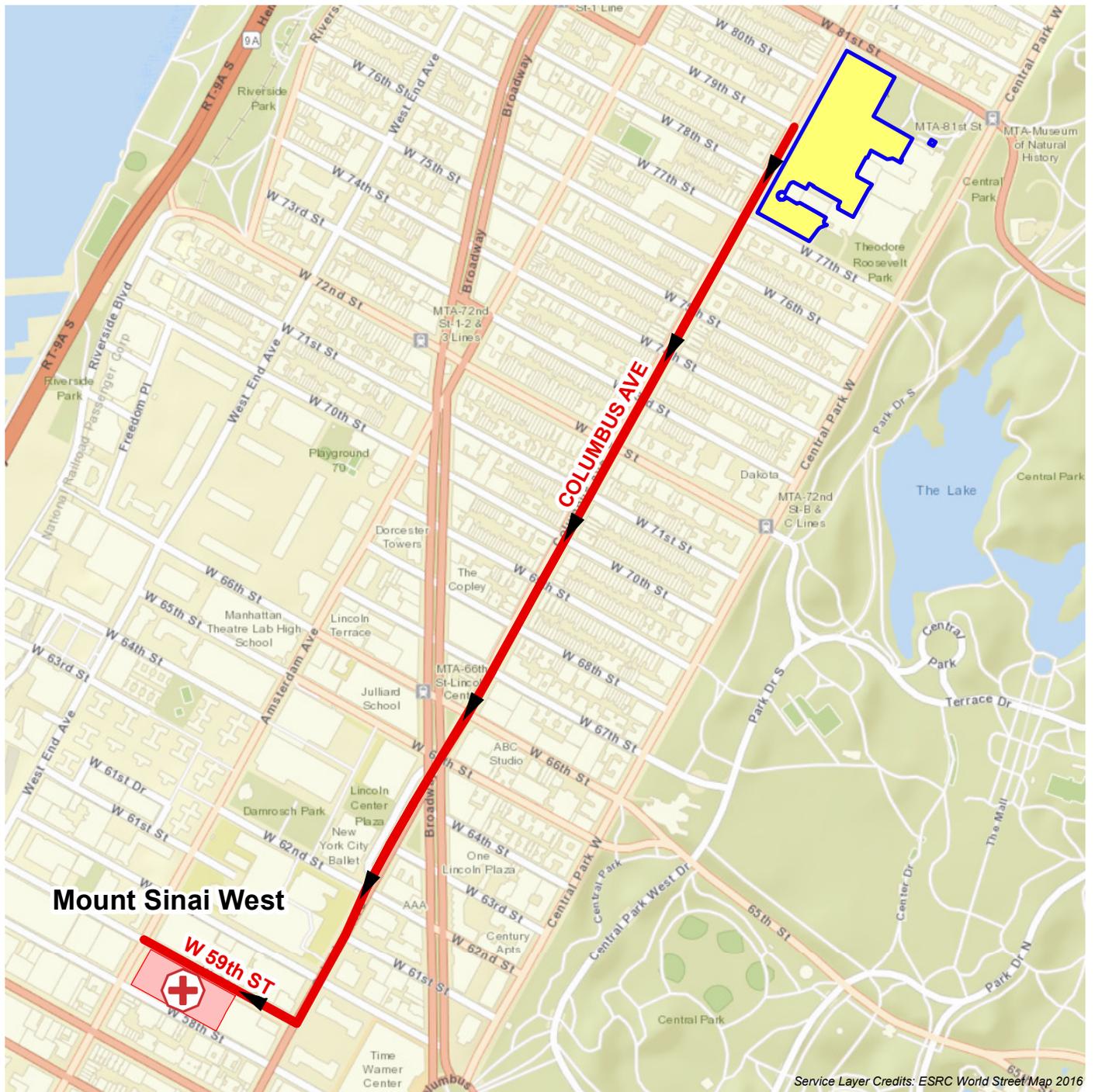
Below is an affidavit that must be signed by all workers who enter the Site. A copy of the HASP must be on-site at all times and will be kept by the SSO.

#### AFFIDAVIT

I, \_\_\_\_\_ (name), of \_\_\_\_\_ (company name), have read the Health and Safety Plan (HASP) for the AMNH Richard Gilder Center for Science, Education and Innovation site. I agree to conduct all on-site work in accordance with the requirements set forth in this HASP and understand that failure to comply with this HASP could lead to my removal from the Site.

Signed: \_\_\_\_\_ Company: \_\_\_\_\_ Date: \_\_\_\_\_

**FIGURE 1**  
**HOSPITAL ROUTE MAP**



Service Layer Credits: ESRC World Street Map 2016

**Legend**



Hospital Location



Route to Hospital



Project Site Boundary



Mount Sinai West Hospital  
 1000 Tenth Avenue – New York, New York  
 (212) 523-4000  
 (The ER is located on West 59th Street between Columbus Avenue and Amsterdam Avenue)

Portions of the American Museum of Natural History and Theodore Roosevelt Park  
 New York, New York



Environmental Consultants  
 440 Park Avenue South, New York, NY 10016

DATE  
**1/12/2017**

PROJECT No.  
**12166**

FIGURE  
**1**

**HOSPITAL ROUTE MAP**

**APPENDIX A**  
**POTENTIAL HEALTH EFFECTS FROM ON-SITE CONTAMINANTS**

This fact sheet answers the most frequently asked health questions (FAQs) about benzene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. This information is important because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

**HIGHLIGHTS: Benzene is a widely used chemical formed from both natural processes and human activities. Breathing benzene can cause drowsiness, dizziness, and unconsciousness; long-term benzene exposure causes effects on the bone marrow and can cause anemia and leukemia. Benzene has been found in at least 813 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).**

## What is benzene?

(Pronounced bĕn'zĕn')

Benzene is a colorless liquid with a sweet odor. It evaporates into the air very quickly and dissolves slightly in water. It is highly flammable and is formed from both natural processes and human activities.

Benzene is widely used in the United States; it ranks in the top 20 chemicals for production volume. Some industries use benzene to make other chemicals which are used to make plastics, resins, and nylon and synthetic fibers. Benzene is also used to make some types of rubbers, lubricants, dyes, detergents, drugs, and pesticides. Natural sources of benzene include volcanoes and forest fires. Benzene is also a natural part of crude oil, gasoline, and cigarette smoke.

## What happens to benzene when it enters the environment?

- Industrial processes are the main source of benzene in the environment.
- Benzene can pass into the air from water and soil.
- It reacts with other chemicals in the air and breaks down within a few days.
- Benzene in the air can attach to rain or snow and be carried back down to the ground.

- It breaks down more slowly in water and soil, and can pass through the soil into underground water.
- Benzene does not build up in plants or animals.

## How might I be exposed to benzene?

- Outdoor air contains low levels of benzene from tobacco smoke, automobile service stations, exhaust from motor vehicles, and industrial emissions.
- Indoor air generally contains higher levels of benzene from products that contain it such as glues, paints, furniture wax, and detergents.
- Air around hazardous waste sites or gas stations will contain higher levels of benzene.
- Leakage from underground storage tanks or from hazardous waste sites containing benzene can result in benzene contamination of well water.
- People working in industries that make or use benzene may be exposed to the highest levels of it.
- A major source of benzene exposures is tobacco smoke.

## How can benzene affect my health?

Breathing very high levels of benzene can result in death, while high levels can cause drowsiness, dizziness, rapid heart rate, headaches, tremors, confusion, and unconsciousness. Eating or drinking foods containing high levels of benzene can cause vomiting, irritation of the stomach, dizziness, sleepiness, convulsions, rapid heart rate, and death.

ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html>

The major effect of benzene from long-term (365 days or longer) exposure is on the blood. Benzene causes harmful effects on the bone marrow and can cause a decrease in red blood cells leading to anemia. It can also cause excessive bleeding and can affect the immune system, increasing the chance for infection.

Some women who breathed high levels of benzene for many months had irregular menstrual periods and a decrease in the size of their ovaries. It is not known whether benzene exposure affects the developing fetus in pregnant women or fertility in men.

Animal studies have shown low birth weights, delayed bone formation, and bone marrow damage when pregnant animals breathed benzene.

### **How likely is benzene to cause cancer?**

The Department of Health and Human Services (DHHS) has determined that benzene is a known human carcinogen. Long-term exposure to high levels of benzene in the air can cause leukemia, cancer of the blood-forming organs.

### **Is there a medical test to show whether I've been exposed to benzene?**

Several tests can show if you have been exposed to benzene. There is test for measuring benzene in the breath; this test must be done shortly after exposure. Benzene can also be measured in the blood, however, since benzene disappears rapidly from the blood, measurements are accurate only for recent exposures.

In the body, benzene is converted to products called metabolites. Certain metabolites can be measured in the urine. However, this test must be done shortly after exposure and is not a reliable indicator of how much benzene you have been exposed to, since the metabolites may be present in urine from other sources.

### **Has the federal government made recommendations to protect human health?**

The EPA has set the maximum permissible level of benzene in drinking water at 0.005 milligrams per liter (0.005 mg/L). The EPA requires that spills or accidental releases into the environment of 10 pounds or more of benzene be reported to the EPA.

The Occupational Safety and Health Administration (OSHA) has set a permissible exposure limit of 1 part of benzene per million parts of air (1 ppm) in the workplace during an 8-hour workday, 40-hour workweek.

### **Glossary**

Anemia: A decreased ability of the blood to transport oxygen.

Carcinogen: A substance with the ability to cause cancer.

CAS: Chemical Abstracts Service.

Chromosomes: Parts of the cells responsible for the development of hereditary characteristics.

Metabolites: Breakdown products of chemicals.

Milligram (mg): One thousandth of a gram.

Pesticide: A substance that kills pests.

### **References**

This ToxFAQs information is taken from the 1997 Toxicological Profile for Benzene (update) produced by the Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services, Public Health Service in Atlanta, GA.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop E-29, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 404-498-0093. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html> ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



This fact sheet answers the most frequently asked health questions (FAQs) about ethylbenzene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

**HIGHLIGHTS:** Ethylbenzene is a colorless liquid found in a number of products including gasoline and paints. Breathing very high levels can cause dizziness and throat and eye irritation. Ethylbenzene has been found in at least 731 of the 1,467 National Priorities List sites identified by the Environmental Protection Agency (EPA).

### What is ethylbenzene?

(Pronounced ěth' əl bĕn' zĕn')

Ethylbenzene is a colorless, flammable liquid that smells like gasoline. It is found in natural products such as coal tar and petroleum and is also found in manufactured products such as inks, insecticides, and paints.

Ethylbenzene is used primarily to make another chemical, styrene. Other uses include as a solvent, in fuels, and to make other chemicals.

### What happens to ethylbenzene when it enters the environment?

- Ethylbenzene moves easily into the air from water and soil.
- It takes about 3 days for ethylbenzene to be broken down in air into other chemicals.
- Ethylbenzene may be released to water from industrial discharges or leaking underground storage tanks.
- In surface water, ethylbenzene breaks down by reacting with other chemicals found naturally in water.
- In soil, it is broken down by soil bacteria.

### How might I be exposed to ethylbenzene?

- Breathing air containing ethylbenzene, particularly in areas near factories or highways.
- Drinking contaminated tap water.
- Working in an industry where ethylbenzene is used or made.
- Using products containing it, such as gasoline, carpet glues, varnishes, and paints.

### How can ethylbenzene affect my health?

Limited information is available on the effects of ethylbenzene on people's health. The available information shows dizziness, throat and eye irritation, tightening of the chest, and a burning sensation in the eyes of people exposed to high levels of ethylbenzene in air.

Animals studies have shown effects on the nervous system, liver, kidneys, and eyes from breathing ethylbenzene in air.

### How likely is ethylbenzene to cause cancer?

The EPA has determined that ethylbenzene is not classified as to human carcinogenicity.

ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html>

No studies in people have shown that ethylbenzene exposure can result in cancer. Two available animal studies suggest that ethylbenzene may cause tumors.

### **How can ethylbenzene affect children?**

Children may be exposed to ethylbenzene through inhalation of consumer products, including gasoline, paints, inks, pesticides, and carpet glue. We do not know whether children are more sensitive to the effects of ethylbenzene than adults.

It is not known whether ethylbenzene can affect the development of the human fetus. Animal studies have shown that when pregnant animals were exposed to ethylbenzene in air, their babies had an increased number of birth defects.

### **How can families reduce the risk of exposure to ethylbenzene?**

Exposure to ethylbenzene vapors from household products and newly installed carpeting can be minimized by using adequate ventilation.

Household chemicals should be stored out of reach of children to prevent accidental poisoning. Always store household chemicals in their original containers; never store them in containers children would find attractive to eat or drink from, such as old soda bottles. Gasoline should be stored in a gasoline can with a locked cap.

Sometimes older children sniff household chemicals, including ethylbenzene, in an attempt to get high. Talk with your children about the dangers of sniffing chemicals.

### **Is there a medical test to show whether I've been exposed to ethylbenzene?**

Ethylbenzene is found in the blood, urine, breath, and

some body tissues of exposed people. The most common way to test for ethylbenzene is in the urine. This test measures substances formed by the breakdown of ethylbenzene. This test needs to be done within a few hours after exposure occurs, because the substances leave the body very quickly.

These tests can show you were exposed to ethylbenzene, but cannot predict the kind of health effects that might occur.

### **Has the federal government made recommendations to protect human health?**

The EPA has set a maximum contaminant level of 0.7 milligrams of ethylbenzene per liter of drinking water (0.7 mg/L).

The EPA requires that spills or accidental releases into the environment of 1,000 pounds or more of ethylbenzene be reported to the EPA.

The Occupational Safety and Health Administration (OSHA) has set an occupational exposure limit of 100 parts of ethylbenzene per million parts of air (100 ppm) for an 8-hour workday, 40-hour workweek.

### **References**

Agency for Toxic Substances and Disease Registry (ATSDR). 1999. Toxicological profile for ethylbenzene. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html> ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



This fact sheet answers the most frequently asked health questions (FAQs) about fuel oils. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

**SUMMARY: Fuel oils are liquid mixtures produced from petroleum, and their use mostly involves burning them as fuels. Drinking or breathing fuel oils may cause nausea or nervous system effects. However, exposure under normal use conditions is not likely to be harmful. Fuel oils have been found in at least 26 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).**

## What are fuel oils?

(Pronounced fyoo'el oilz)

Fuel oils are a variety of yellowish to light brown liquid mixtures that come from crude petroleum. Some chemicals found in fuel oils may evaporate easily, while others may more easily dissolve in water.

Fuel oils are produced by different petroleum refining processes, depending on their intended uses. Fuel oils may be used as fuel for engines, lamps, heaters, furnaces, and stoves, or as solvents.

Some commonly found fuel oils include kerosene, diesel fuel, jet fuel, range oil, and home heating oil. These fuel oils differ from one another by their hydrocarbon compositions, boiling point ranges, chemical additives, and uses.

## What happens to fuel oils when they enter the environment?

- Some chemicals found in fuel oils may evaporate into the air from open containers or contaminated soil or water.
- Some chemicals found in fuel oils may dissolve in water after spills to surface waters or leaks from underground storage tanks.

- Some chemicals found in fuel oils may stick to particles in water, which will eventually cause them to settle to the bottom sediment.
- Some of the chemicals found in fuel oils may be broken down slowly in air, water, and soil by sunlight or small organisms.
- Some of the chemicals found in fuel oils may build up significantly in plants and animals.

## How might I be exposed to fuel oils?

- Using a home kerosene heater or stove, or using fuel oils at work.
- Breathing air in home or building basements that has been contaminated with fuel oil vapors entering from the soil.
- Drinking or swimming in water that has been contaminated with fuel oils from a spill or a leaking underground storage tank.
- Touching soil contaminated with fuel oils.
- Using fuel oils to wash paint or grease from skin or equipment.

## How can fuel oils affect my health?

Little information is available about the health effects that may be caused by fuel oils. People who use kerosene

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stoves for cooking do not seem to have any health problems related to their exposure.

Breathing some fuel oils for short periods may cause nausea, eye irritation, increased blood pressure, headache, lightheadedness, loss of appetite, poor coordination, and difficulty concentrating. Breathing diesel fuel vapors for long periods may cause kidney damage and lower your blood's ability to clot.

Drinking small amounts of kerosene may cause vomiting, diarrhea, coughing, stomach swelling and cramps, drowsiness, restlessness, painful breathing, irritability, and unconsciousness. Drinking large amounts of kerosene may cause convulsions, coma, or death. Skin contact with kerosene for short periods may cause itchy, red, sore, or peeling skin.

### How likely are fuel oils to cause cancer?

The International Agency for Research on Cancer (IARC) has determined that some fuel oils (heavy) may possibly cause cancer in humans, but for other fuel oils (light) there is not enough information to make a determination. IARC has also determined that occupational exposures to fuel oils during petroleum refining are probably carcinogenic in humans.

Some studies with mice have suggested that repeated contact with fuel oils may cause liver or skin cancer. However, other mouse studies have found this not to be the case. No studies are available in other animals or in people on the carcinogenic effects of fuel oils.

### Is there a medical test to show whether I've been exposed to fuel oils?

There is no medical test that shows if you have been exposed to fuel oils. Tests are available to determine if some of

the chemicals commonly found in fuel oils are in your blood. However, the presence of these chemicals in blood may not necessarily mean that you have been exposed to fuel oils.

### Has the federal government made recommendations to protect human health?

The Occupational Safety and Health Administration (OSHA) and the Air Force Office of Safety and Health (AFOSH) have set a permissible exposure level (PEL) of 400 parts of petroleum distillates per million parts of air (400 ppm) for an 8-hour workday, 40-hour workweek.

The National Institute for Occupational Safety and Health (NIOSH) recommends that average workplace air levels not exceed 350 milligrams of petroleum distillates per cubic meter of air (350 mg/m<sup>3</sup>) for a 40-hour workweek.

The Department of Transportation (DOT) lists fuel oils as hazardous materials and, therefore, regulates their transportation.

### Glossary

Carcinogenic: Able to cause cancer.

CAS: Chemical Abstracts Service.

Evaporate: To change into a vapor or a gas.

Hydrocarbon: Any compound made up of hydrogen and carbon.

Milligram (mg): One thousandth of a gram.

ppm: Parts per million.

Sediment: Mud and debris that have settled to the bottom of a body of water.

### References

Agency for Toxic Substances and Disease Registry (ATSDR). 1995. Toxicological profile for fuel oils. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop E-29, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 404-498-0093. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html> ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



This fact sheet answers the most frequently asked health questions (FAQs) about lead. For more information, call the ATSDR Information Center at 1-800-232-4636. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

**HIGHLIGHTS:** Exposure to lead can happen from breathing workplace air or dust, eating contaminated foods, or drinking contaminated water. Children can be exposed from eating lead-based paint chips or playing in contaminated soil. Lead can damage the nervous system, kidneys, and reproductive system. Lead has been found in at least 1,272 of the 1,684 National Priority List sites identified by the Environmental Protection Agency (EPA).

### What is lead?

Lead is a naturally occurring bluish-gray metal found in small amounts in the earth's crust. Lead can be found in all parts of our environment. Much of it comes from human activities including burning fossil fuels, mining, and manufacturing.

Lead has many different uses. It is used in the production of batteries, ammunition, metal products (solder and pipes), and devices to shield X-rays. Because of health concerns, lead from paints and ceramic products, caulking, and pipe solder has been dramatically reduced in recent years. The use of lead as an additive to gasoline was banned in 1996 in the United States.

### What happens to lead when it enters the environment?

- Lead itself does not break down, but lead compounds are changed by sunlight, air, and water.
- When lead is released to the air, it may travel long distances before settling to the ground.
- Once lead falls onto soil, it usually sticks to soil particles.
- Movement of lead from soil into groundwater will depend on the type of lead compound and the characteristics of the soil.

### How might I be exposed to lead?

- Eating food or drinking water that contains lead. Water pipes in some older homes may contain lead solder. Lead can leach out into the water.

- Spending time in areas where lead-based paints have been used and are deteriorating. Deteriorating lead paint can contribute to lead dust.

- Working in a job where lead is used or engaging in certain hobbies in which lead is used, such as making stained glass.

- Using health-care products or folk remedies that contain lead.

### How can lead affect my health?

The effects of lead are the same whether it enters the body through breathing or swallowing. Lead can affect almost every organ and system in your body. The main target for lead toxicity is the nervous system, both in adults and children. Long-term exposure of adults can result in decreased performance in some tests that measure functions of the nervous system. It may also cause weakness in fingers, wrists, or ankles. Lead exposure also causes small increases in blood pressure, particularly in middle-aged and older people and can cause anemia. Exposure to high lead levels can severely damage the brain and kidneys in adults or children and ultimately cause death. In pregnant women, high levels of exposure to lead may cause miscarriage. High-level exposure in men can damage the organs responsible for sperm production.

### How likely is lead to cause cancer?

We have no conclusive proof that lead causes cancer in humans. Kidney tumors have developed in rats and mice that had been given large doses of some kind of lead compounds. The Department of Health and Human Services

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(DHHS) has determined that lead and lead compounds are reasonably anticipated to be human carcinogens and the EPA has determined that lead is a probable human carcinogen. The International Agency for Research on Cancer (IARC) has determined that inorganic lead is probably carcinogenic to humans and that there is insufficient information to determine whether organic lead compounds will cause cancer in humans.

### How can lead affect children?

Small children can be exposed by eating lead-based paint chips, chewing on objects painted with lead-based paint, or swallowing house dust or soil that contains lead.

Children are more vulnerable to lead poisoning than adults. A child who swallows large amounts of lead may develop blood anemia, severe stomachache, muscle weakness, and brain damage. If a child swallows smaller amounts of lead, much less severe effects on blood and brain function may occur. Even at much lower levels of exposure, lead can affect a child's mental and physical growth.

Exposure to lead is more dangerous for young and unborn children. Unborn children can be exposed to lead through their mothers. Harmful effects include premature births, smaller babies, decreased mental ability in the infant, learning difficulties, and reduced growth in young children. These effects are more common if the mother or baby was exposed to high levels of lead. Some of these effects may persist beyond childhood.

### How can families reduce the risks of exposure to lead?

- Avoid exposure to sources of lead.
- Do not allow children to chew on mouth surfaces that may have been painted with lead-based paint.
- If you have a water lead problem, run or flush water that has been standing overnight before drinking or cooking with it.
- Some types of paints and pigments that are used as make-up or hair coloring contain lead. Keep these kinds of products away from children
- If your home contains lead-based paint or you live in an area contaminated with lead, wash children's hands and faces

often to remove lead dusts and soil, and regularly clean the house of dust and tracked in soil.

### Is there a medical test to determine whether I've been exposed to lead?

A blood test is available to measure the amount of lead in your blood and to estimate the amount of your recent exposure to lead. Blood tests are commonly used to screen children for lead poisoning. Lead in teeth or bones can be measured by X-ray techniques, but these methods are not widely available. Exposure to lead also can be evaluated by measuring erythrocyte protoporphyrin (EP) in blood samples. EP is a part of red blood cells known to increase when the amount of lead in the blood is high. However, the EP level is not sensitive enough to identify children with elevated blood lead levels below about 25 micrograms per deciliter ( $\mu\text{g}/\text{dL}$ ). These tests usually require special analytical equipment that is not available in a doctor's office. However, your doctor can draw blood samples and send them to appropriate laboratories for analysis.

### Has the federal government made recommendations to protect human health?

The Centers for Disease Control and Prevention (CDC) recommends that states test children at ages 1 and 2 years. Children should be tested at ages 3–6 years if they have never been tested for lead, if they receive services from public assistance programs for the poor such as Medicaid or the Supplemental Food Program for Women, Infants, and Children, if they live in a building or frequently visit a house built before 1950; if they visit a home (house or apartment) built before 1978 that has been recently remodeled; and/or if they have a brother, sister, or playmate who has had lead poisoning. CDC considers a blood lead level of 10  $\mu\text{g}/\text{dL}$  to be a level of concern for children.

EPA limits lead in drinking water to 15  $\mu\text{g}$  per liter.

### References

Agency for Toxic Substances and Disease Registry (ATSDR). 2007. Toxicological Profile for lead (Update). Atlanta, GA: U.S. Department of Public Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology and Environmental Medicine, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-800-232-4636, FAX: 770-488-4178. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html>. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



**This fact sheet answers the most frequently asked health questions (FAQs) about mercury. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.**

**HIGHLIGHTS: Exposure to mercury occurs from breathing contaminated air, ingesting contaminated water and food, and having dental and medical treatments. Mercury, at high levels, may damage the brain, kidneys, and developing fetus. This chemical has been found in at least 714 of 1,467 National Priorities List sites identified by the Environmental Protection Agency.**

### What is mercury?

(Pronounced mŭr/kyə-rē)

Mercury is a naturally occurring metal which has several forms. The metallic mercury is a shiny, silver-white, odorless liquid. If heated, it is a colorless, odorless gas.

Mercury combines with other elements, such as chlorine, sulfur, or oxygen, to form inorganic mercury compounds or "salts," which are usually white powders or crystals. Mercury also combines with carbon to make organic mercury compounds. The most common one, methylmercury, is produced mainly by microscopic organisms in the water and soil. More mercury in the environment can increase the amounts of methylmercury that these small organisms make.

Metallic mercury is used to produce chlorine gas and caustic soda, and is also used in thermometers, dental fillings, and batteries. Mercury salts are sometimes used in skin lightening creams and as antiseptic creams and ointments.

### What happens to mercury when it enters the environment?

- Inorganic mercury (metallic mercury and inorganic mercury compounds) enters the air from mining ore deposits, burning coal and waste, and from manufacturing plants.
- It enters the water or soil from natural deposits, disposal of wastes, and volcanic activity.

- Methylmercury may be formed in water and soil by small organisms called bacteria.
- Methylmercury builds up in the tissues of fish. Larger and older fish tend to have the highest levels of mercury.

### How might I be exposed to mercury?

- Eating fish or shellfish contaminated with methylmercury.
- Breathing vapors in air from spills, incinerators, and industries that burn mercury-containing fuels.
- Release of mercury from dental work and medical treatments.
- Breathing contaminated workplace air or skin contact during use in the workplace (dental, health services, chemical, and other industries that use mercury).
- Practicing rituals that include mercury.

### How can mercury affect my health?

The nervous system is very sensitive to all forms of mercury. Methylmercury and metallic mercury vapors are more harmful than other forms, because more mercury in these forms reaches the brain. Exposure to high levels of metallic, inorganic, or organic mercury can permanently damage the brain, kidneys, and developing fetus. Effects on brain functioning may result in irritability, shyness, tremors, changes in vision or hearing, and memory problems.

Short-term exposure to high levels of metallic mercury vapors may cause effects including lung damage, nausea,

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vomiting, diarrhea, increases in blood pressure or heart rate, skin rashes, and eye irritation.

### How likely is mercury to cause cancer?

There are inadequate human cancer data available for all forms of mercury. Mercuric chloride has caused increases in several types of tumors in rats and mice, and methylmercury has caused kidney tumors in male mice. The EPA has determined that mercuric chloride and methylmercury are possible human carcinogens.

### How can mercury affect children?

Very young children are more sensitive to mercury than adults. Mercury in the mother's body passes to the fetus and may accumulate there. It can also pass to a nursing infant through breast milk. However, the benefits of breast feeding may be greater than the possible adverse effects of mercury in breast milk.

Mercury's harmful effects that may be passed from the mother to the fetus include brain damage, mental retardation, incoordination, blindness, seizures, and inability to speak. Children poisoned by mercury may develop problems of their nervous and digestive systems, and kidney damage.

### How can families reduce the risk of exposure to mercury?

Carefully handle and dispose of products that contain mercury, such as thermometers or fluorescent light bulbs. Do not vacuum up spilled mercury, because it will vaporize and increase exposure. If a large amount of mercury has been spilled, contact your health department. Teach children not to play with shiny, silver liquids.

Properly dispose of older medicines that contain mercury. Keep all mercury-containing medicines away from children.

Pregnant women and children should keep away from

rooms where liquid mercury has been used.

Learn about wildlife and fish advisories in your area from your public health or natural resources department.

### Is there a medical test to show whether I've been exposed to mercury?

Tests are available to measure mercury levels in the body. Blood or urine samples are used to test for exposure to metallic mercury and to inorganic forms of mercury. Mercury in whole blood or in scalp hair is measured to determine exposure to methylmercury. Your doctor can take samples and send them to a testing laboratory.

### Has the federal government made recommendations to protect human health?

The EPA has set a limit of 2 parts of mercury per billion parts of drinking water (2 ppb).

The Food and Drug Administration (FDA) has set a maximum permissible level of 1 part of methylmercury in a million parts of seafood (1 ppm).

The Occupational Safety and Health Administration (OSHA) has set limits of 0.1 milligram of organic mercury per cubic meter of workplace air (0.1 mg/m<sup>3</sup>) and 0.05 mg/m<sup>3</sup> of metallic mercury vapor for 8-hour shifts and 40-hour work weeks.

### References

Agency for Toxic Substances and Disease Registry (ATSDR). 1999. Toxicological profile for mercury. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html> ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



**This fact sheet answers the most frequently asked health questions (FAQs) about polycyclic aromatic hydrocarbons (PAHs). For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. This information is important because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.**

**SUMMARY: Exposure to polycyclic aromatic hydrocarbons usually occurs by breathing air contaminated by wild fires or coal tar, or by eating foods that have been grilled. PAHs have been found in at least 600 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).**

## What are polycyclic aromatic hydrocarbons?

(Pronounced pŏl'ī-sī'klīk ār'ə-măt'īk hī'drə-kar'bənz)

Polycyclic aromatic hydrocarbons (PAHs) are a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like tobacco or charbroiled meat. PAHs are usually found as a mixture containing two or more of these compounds, such as soot.

Some PAHs are manufactured. These pure PAHs usually exist as colorless, white, or pale yellow-green solids. PAHs are found in coal tar, crude oil, creosote, and roofing tar, but a few are used in medicines or to make dyes, plastics, and pesticides.

## What happens to PAHs when they enter the environment?

- PAHs enter the air mostly as releases from volcanoes, forest fires, burning coal, and automobile exhaust.
- PAHs can occur in air attached to dust particles.
- Some PAH particles can readily evaporate into the air from soil or surface waters.
- PAHs can break down by reacting with sunlight and other chemicals in the air, over a period of days to weeks.

- PAHs enter water through discharges from industrial and wastewater treatment plants.
- Most PAHs do not dissolve easily in water. They stick to solid particles and settle to the bottoms of lakes or rivers.
- Microorganisms can break down PAHs in soil or water after a period of weeks to months.
- In soils, PAHs are most likely to stick tightly to particles; certain PAHs move through soil to contaminate underground water.
- PAH contents of plants and animals may be much higher than PAH contents of soil or water in which they live.

## How might I be exposed to PAHs?

- Breathing air containing PAHs in the workplace of coking, coal-tar, and asphalt production plants; smoke-houses; and municipal trash incineration facilities.
- Breathing air containing PAHs from cigarette smoke, wood smoke, vehicle exhausts, asphalt roads, or agricultural burn smoke.
- Coming in contact with air, water, or soil near hazardous waste sites.
- Eating grilled or charred meats; contaminated cereals, flour, bread, vegetables, fruits, meats; and processed or pickled foods.
- Drinking contaminated water or cow's milk.

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- ❑ Nursing infants of mothers living near hazardous waste sites may be exposed to PAHs through their mother's milk.

### How can PAHs affect my health?

Mice that were fed high levels of one PAH during pregnancy had difficulty reproducing and so did their offspring. These offspring also had higher rates of birth defects and lower body weights. It is not known whether these effects occur in people.

Animal studies have also shown that PAHs can cause harmful effects on the skin, body fluids, and ability to fight disease after both short- and long-term exposure. But these effects have not been seen in people.

### How likely are PAHs to cause cancer?

The Department of Health and Human Services (DHHS) has determined that some PAHs may reasonably be expected to be carcinogens.

Some people who have breathed or touched mixtures of PAHs and other chemicals for long periods of time have developed cancer. Some PAHs have caused cancer in laboratory animals when they breathed air containing them (lung cancer), ingested them in food (stomach cancer), or had them applied to their skin (skin cancer).

### Is there a medical test to show whether I've been exposed to PAHs?

In the body, PAHs are changed into chemicals that can attach to substances within the body. There are special tests that can detect PAHs attached to these substances in body tissues or blood. However, these tests cannot tell whether any

health effects will occur or find out the extent or source of your exposure to the PAHs. The tests aren't usually available in your doctor's office because special equipment is needed to conduct them.

### Has the federal government made recommendations to protect human health?

The Occupational Safety and Health Administration (OSHA) has set a limit of 0.2 milligrams of PAHs per cubic meter of air ( $0.2 \text{ mg/m}^3$ ). The OSHA Permissible Exposure Limit (PEL) for mineral oil mist that contains PAHs is  $5 \text{ mg/m}^3$  averaged over an 8-hour exposure period.

The National Institute for Occupational Safety and Health (NIOSH) recommends that the average workplace air levels for coal tar products not exceed  $0.1 \text{ mg/m}^3$  for a 10-hour workday, within a 40-hour workweek. There are other limits for workplace exposure for things that contain PAHs, such as coal, coal tar, and mineral oil.

### Glossary

Carcinogen: A substance that can cause cancer.

Ingest: Take food or drink into your body.

### References

Agency for Toxic Substances and Disease Registry (ATSDR). 1995. Toxicological profile for polycyclic aromatic hydrocarbons. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop E-29, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 404-498-0093. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html> ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



This fact sheet answers the most frequently asked health questions (FAQs) about trichloroethylene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. This information is important because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

**HIGHLIGHTS:** Trichloroethylene is a colorless liquid which is used as a solvent for cleaning metal parts. Drinking or breathing high levels of trichloroethylene may cause nervous system effects, liver and lung damage, abnormal heartbeat, coma, and possibly death. Trichloroethylene has been found in at least 852 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).

### What is trichloroethylene?

Trichloroethylene (TCE) is a nonflammable, colorless liquid with a somewhat sweet odor and a sweet, burning taste. It is used mainly as a solvent to remove grease from metal parts, but it is also an ingredient in adhesives, paint removers, typewriter correction fluids, and spot removers.

Trichloroethylene is not thought to occur naturally in the environment. However, it has been found in underground water sources and many surface waters as a result of the manufacture, use, and disposal of the chemical.

### What happens to trichloroethylene when it enters the environment?

- ❑ Trichloroethylene dissolves a little in water, but it can remain in ground water for a long time.
- ❑ Trichloroethylene quickly evaporates from surface water, so it is commonly found as a vapor in the air.
- ❑ Trichloroethylene evaporates less easily from the soil than from surface water. It may stick to particles and remain for a long time.
- ❑ Trichloroethylene may stick to particles in water, which will cause it to eventually settle to the bottom sediment.
- ❑ Trichloroethylene does not build up significantly in

plants and animals.

### How might I be exposed to trichloroethylene?

- ❑ Breathing air in and around the home which has been contaminated with trichloroethylene vapors from shower water or household products such as spot removers and typewriter correction fluid.
- ❑ Drinking, swimming, or showering in water that has been contaminated with trichloroethylene.
- ❑ Contact with soil contaminated with trichloroethylene, such as near a hazardous waste site.
- ❑ Contact with the skin or breathing contaminated air while manufacturing trichloroethylene or using it at work to wash paint or grease from skin or equipment.

### How can trichloroethylene affect my health?

Breathing small amounts may cause headaches, lung irritation, dizziness, poor coordination, and difficulty concentrating.

Breathing large amounts of trichloroethylene may cause impaired heart function, unconsciousness, and death. Breathing it for long periods may cause nerve, kidney, and liver damage.

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Drinking large amounts of trichloroethylene may cause nausea, liver damage, unconsciousness, impaired heart function, or death.

Drinking small amounts of trichloroethylene for long periods may cause liver and kidney damage, impaired immune system function, and impaired fetal development in pregnant women, although the extent of some of these effects is not yet clear.

Skin contact with trichloroethylene for short periods may cause skin rashes.

### How likely is trichloroethylene to cause cancer?

Some studies with mice and rats have suggested that high levels of trichloroethylene may cause liver, kidney, or lung cancer. Some studies of people exposed over long periods to high levels of trichloroethylene in drinking water or in workplace air have found evidence of increased cancer. Although, there are some concerns about the studies of people who were exposed to trichloroethylene, some of the effects found in people were similar to effects in animals.

In its 9<sup>th</sup> Report on Carcinogens, the National Toxicology Program (NTP) determined that trichloroethylene is “reasonably anticipated to be a human carcinogen.” The International Agency for Research on Cancer (IARC) has determined that trichloroethylene is “probably carcinogenic to humans.”

### Is there a medical test to show whether I've been exposed to trichloroethylene?

If you have recently been exposed to trichloroethylene, it can be detected in your breath, blood, or urine. The breath test, if it is performed soon after exposure, can tell if you have been exposed to even a small amount of trichloroethylene.

Exposure to larger amounts is assessed by blood

and urine tests, which can detect trichloroethylene and many of its breakdown products for up to a week after exposure. However, exposure to other similar chemicals can produce the same breakdown products, so their detection is not absolute proof of exposure to trichloroethylene. This test isn't available at most doctors' offices, but can be done at special laboratories that have the right equipment.

### Has the federal government made recommendations to protect human health?

The EPA has set a maximum contaminant level for trichloroethylene in drinking water at 0.005 milligrams per liter (0.005 mg/L) or 5 parts of TCE per billion parts water.

The EPA has also developed regulations for the handling and disposal of trichloroethylene.

The Occupational Safety and Health Administration (OSHA) has set an exposure limit of 100 parts of trichloroethylene per million parts of air (100 ppm) for an 8-hour workday, 40-hour workweek.

### Glossary

Carcinogenicity: The ability of a substance to cause cancer.

CAS: Chemical Abstracts Service.

Evaporate: To change into a vapor or gas.

Milligram (mg): One thousandth of a gram.

Nonflammable: Will not burn.

ppm: Parts per million.

Sediment: Mud and debris that have settled to the bottom of a body of water.

Solvent: A chemical that dissolves other substances.

### References

This ToxFAQs information is taken from the 1997 Toxicological Profile for Trichloroethylene (update) produced by the Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services, Public Health Service in Atlanta, GA.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs™ Internet address is <http://www.atsdr.cdc.gov/toxfaq.html>. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

This fact sheet answers the most frequently asked health questions (FAQs) about toluene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

**HIGHLIGHTS:** Exposure to toluene occurs from breathing contaminated workplace air, in automobile exhaust, some consumer products paints, paint thinners, fingernail polish, lacquers, and adhesives. Toluene affects the nervous system. Toluene has been found at 959 of the 1,591 National Priority List sites identified by the Environmental Protection Agency

### What is toluene?

Toluene is a clear, colorless liquid with a distinctive smell. Toluene occurs naturally in crude oil and in the tolu tree. It is also produced in the process of making gasoline and other fuels from crude oil and making coke from coal.

Toluene is used in making paints, paint thinners, fingernail polish, lacquers, adhesives, and rubber and in some printing and leather tanning processes.

### What happens to toluene when it enters the environment?

Toluene enters the environment when you use materials that contain it. It can also enter surface water and groundwater from spills of solvents and petroleum products as well as from leaking underground storage tanks at gasoline stations and other facilities.

When toluene-containing products are placed in landfills or waste disposal sites, the toluene can enter the soil or water near the waste site.

Toluene does not usually stay in the environment long.

Toluene does not concentrate or buildup to high levels in animals.

### How might I be exposed to toluene?

Breathing contaminated workplace air or automobile exhaust.

Working with gasoline, kerosene, heating oil, paints, and lacquers.

Drinking contaminated well-water.

Living near uncontrolled hazardous waste sites containing toluene products.

### How can toluene affect my health?

Toluene may affect the nervous system. Low to moderate levels can cause tiredness, confusion, weakness, drunken-type actions, memory loss, nausea, loss of appetite, and

**ToxFAQs™ Internet address is <http://www.atsdr.cdc.gov/toxfaq.html>**

hearing and color vision loss. These symptoms usually disappear when exposure is stopped.

Inhaling High levels of toluene in a short time can make you feel light-headed, dizzy, or sleepy. It can also cause unconsciousness, and even death.

High levels of toluene may affect your kidneys.

### **How likely is toluene to cause cancer?**

Studies in humans and animals generally indicate that toluene does not cause cancer.

The EPA has determined that the carcinogenicity of toluene can not be classified.

### **How can toluene affect children?**

It is likely that health effects seen in children exposed to toluene will be similar to the effects seen in adults. Some studies in animals suggest that babies may be more sensitive than adults.

Breathing very high levels of toluene during pregnancy can result in children with birth defects and retard mental abilities, and growth. We do not know if toluene harms the unborn child if the mother is exposed to low levels of toluene during pregnancy.

### **How can families reduce the risk of exposure to toluene?**

- Use toluene-containing products in well-ventilated areas.

- When not in use, toluene-containing products should be tightly covered to prevent evaporation into the air.

### **Is there a medical test to show whether I've been exposed to toluene?**

There are tests to measure the level of toluene or its breakdown products in exhaled air, urine, and blood. To determine if you have been exposed to toluene, your urine or blood must be checked within 12 hours of exposure. Several other chemicals are also changed into the same breakdown products as toluene, so some of these tests are not specific for toluene.

### **Has the federal government made recommendations to protect human health?**

EPA has set a limit of 1 milligram per liter of drinking water (1 mg/L).

Discharges, releases, or spills of more than 1,000 pounds of toluene must be reported to the National Response Center.

The Occupational Safety and Health Administration has set a limit of 200 parts toluene per million of workplace air (200 ppm).

### **References**

Agency for Toxic Substances and Disease Registry (ATSDR). 2000. Toxicological Profile for Toluene. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs™ Internet address is <http://www.atsdr.cdc.gov/toxfaq.html>. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



This fact sheet answers the most frequently asked health questions (FAQs) about xylene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

**SUMMARY: Exposure to xylene occurs in the workplace and when you use paint, gasoline, paint thinners and other products that contain it. People who breathe high levels may have dizziness, confusion, and a change in their sense of balance. This substance has been found in at least 658 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).**

## What is xylene?

(Pronounced zī'lēn)

Xylene is a colorless, sweet-smelling liquid that catches on fire easily. It occurs naturally in petroleum and coal tar and is formed during forest fires. You can smell xylene in air at 0.08–3.7 parts of xylene per million parts of air (ppm) and begin to taste it in water at 0.53–1.8 ppm.

Chemical industries produce xylene from petroleum. It's one of the top 30 chemicals produced in the United States in terms of volume.

Xylene is used as a solvent and in the printing, rubber, and leather industries. It is also used as a cleaning agent, a thinner for paint, and in paints and varnishes. It is found in small amounts in airplane fuel and gasoline.

## What happens to xylene when it enters the environment?

- Xylene has been found in waste sites and landfills when discarded as used solvent, or in varnish, paint, or paint thinners.
- It evaporates quickly from the soil and surface water into the air.

- In the air, it is broken down by sunlight into other less harmful chemicals.
- It is broken down by microorganisms in soil and water.
- Only a small amount of it builds up in fish, shellfish, plants, and animals living in xylene-contaminated water.

## How might I be exposed to xylene?

- Breathing xylene in workplace air or in automobile exhaust.
- Breathing contaminated air.
- Touching gasoline, paint, paint removers, varnish, shellac, and rust preventatives that contain it.
- Breathing cigarette smoke that has small amounts of xylene in it.
- Drinking contaminated water or breathing air near waste sites and landfills that contain xylene.
- The amount of xylene in food is likely to be low.

## How can xylene affect my health?

Xylene affects the brain. High levels from exposure for short periods (14 days or less) or long periods (more than 1 year) can cause headaches, lack of muscle coordination, dizziness, confusion, and changes in one's sense of balance. Exposure of

ToxFAQs Internet home page via WWW is <http://www.atsdr.cdc.gov/toxfaq.html>

people to high levels of xylene for short periods can also cause irritation of the skin, eyes, nose, and throat; difficulty in breathing; problems with the lungs; delayed reaction time; memory difficulties; stomach discomfort; and possibly changes in the liver and kidneys. It can cause unconsciousness and even death at very high levels.

Studies of unborn animals indicate that high concentrations of xylene may cause increased numbers of deaths, and delayed growth and development. In many instances, these same concentrations also cause damage to the mothers. We do not know if xylene harms the unborn child if the mother is exposed to low levels of xylene during pregnancy.

### How likely is xylene to cause cancer?

The International Agency for Research on Cancer (IARC) has determined that xylene is not classifiable as to its carcinogenicity in humans.

Human and animal studies have not shown xylene to be carcinogenic, but these studies are not conclusive and do not provide enough information to conclude that xylene does not cause cancer.

### Is there a medical test to show whether I've been exposed to xylene?

Laboratory tests can detect xylene or its breakdown products in exhaled air, blood, or urine. There is a high degree of agreement between the levels of exposure to xylene and the levels of xylene breakdown products in the urine. However, a urine sample must be provided very soon after exposure ends because xylene quickly leaves the body. These tests are not routinely available at your doctor's office.

### Has the federal government made recommendations to protect human health?

The EPA has set a limit of 10 ppm of xylene in drinking water.

The EPA requires that spills or accidental releases of xylenes into the environment of 1,000 pounds or more must be reported.

The Occupational Safety and Health Administration (OSHA) has set a maximum level of 100 ppm xylene in workplace air for an 8-hour workday, 40-hour workweek.

The National Institute for Occupational Safety and Health (NIOSH) and the American Conference of Governmental Industrial Hygienists (ACGIH) also recommend exposure limits of 100 ppm in workplace air.

NIOSH has recommended that 900 ppm of xylene be considered immediately dangerous to life or health. This is the exposure level of a chemical that is likely to cause permanent health problems or death.

### Glossary

Evaporate: To change from a liquid into a vapor or a gas.

Carcinogenic: Having the ability to cause cancer.

CAS: Chemical Abstracts Service.

ppm: Parts per million.

Solvent: A liquid that can dissolve other substances.

### References

Agency for Toxic Substances and Disease Registry (ATSDR). 1995. Toxicological profile for xylenes (update). Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop E-29, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 404-498-0093. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html> ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



This fact sheet answers the most frequently asked health questions (FAQs) about arsenic. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

**HIGHLIGHTS: Exposure to higher than average levels of arsenic occurs mostly in the workplace, near hazardous waste sites, or in areas with high natural levels. At high levels, inorganic arsenic can cause death. Exposure to lower levels for a long time can cause a discoloration of the skin and the appearance of small corns or warts. Arsenic has been found at 1,014 of the 1,598 National Priority List sites identified by the Environmental Protection Agency (EPA).**

### What is arsenic?

Arsenic is a naturally occurring element widely distributed in the earth's crust. In the environment, arsenic is combined with oxygen, chlorine, and sulfur to form inorganic arsenic compounds. Arsenic in animals and plants combines with carbon and hydrogen to form organic arsenic compounds.

Inorganic arsenic compounds are mainly used to preserve wood. Organic arsenic compounds are used as pesticides, primarily on cotton plants.

### What happens to arsenic when it enters the environment?

- Arsenic cannot be destroyed in the environment. It can only change its form.
- Arsenic in air will settle to the ground or is washed out of the air by rain.
- Many arsenic compounds can dissolve in water.
- Fish and shellfish can accumulate arsenic, but the arsenic in fish is mostly in a form that is not harmful.

### How might I be exposed to arsenic?

- Eating food, drinking water, or breathing air containing arsenic.
- Breathing contaminated workplace air.
- Breathing sawdust or burning smoke from wood treated with arsenic.
- Living near uncontrolled hazardous waste sites containing arsenic.
- Living in areas with unusually high natural levels of arsenic in rock.

### How can arsenic affect my health?

Breathing high levels of inorganic arsenic can give you a sore throat or irritated lungs. Ingesting high levels of inorganic arsenic can result in death. Lower levels of arsenic can cause nausea and vomiting, decreased production of red and white blood cells, abnormal heart rhythm, damage to blood vessels, and a sensation of "pins and needles" in hands and feet.

Ingesting or breathing low levels of inorganic arsenic for a long time can cause a darkening of the skin and the

ToxFAQs™ Internet address is <http://www.atsdr.cdc.gov/toxfaq.html>

appearance of small “corns” or “warts” on the palms, soles, and torso.

Skin contact with inorganic arsenic may cause redness and swelling.

Organic arsenic compounds are less toxic than inorganic arsenic compounds. Exposure to high levels of some organic arsenic compounds may cause similar effects as inorganic arsenic.

### How likely is arsenic to cause cancer?

Several studies have shown that inorganic arsenic can increase the risk of lung cancer, skin cancer, bladder cancer, liver cancer, kidney cancer, and prostate cancer. The World Health Organization (WHO), the Department of Health and Human Services (DHHS), and the EPA have determined that inorganic arsenic is a human carcinogen.

### How can arsenic affect children?

We do not know if exposure to arsenic will result in birth defects or other developmental effects in people. Birth defects have been observed in animals exposed to inorganic arsenic.

It is likely that health effects seen in children exposed to high amounts of arsenic will be similar to the effects seen in adults.

### How can families reduce the risk of exposure to arsenic?

- If you use arsenic-treated wood in home projects, you should wear dust masks, gloves, and protective clothing to decrease exposure to sawdust.
- If you live in an area with high levels of arsenic in water or soil, you should use cleaner sources of water and limit contact with soil.

### Is there a medical test to show whether I've been exposed to arsenic?

There are tests to measure the level of arsenic in blood, urine, hair, or fingernails. The urine test is the most reliable test for arsenic exposure within the last few days. Tests on hair and fingernails can measure exposure to high levels of arsenic over the past 6-12 months. These tests can determine if you have been exposed to above-average levels of arsenic. They cannot predict how the arsenic levels in your body will affect your health.

### Has the federal government made recommendations to protect human health?

EPA has set limits on the amount of arsenic that industrial sources can release to the environment and has restricted or canceled many uses of arsenic in pesticides. EPA has set a limit of 0.01 parts per million (ppm) for arsenic in drinking water.

The Occupational Safety and Health Administration has set limits of 10 µg arsenic per cubic meter of workplace air (10 µg/m<sup>3</sup>) for 8 hour shifts and 40 hour work weeks.

### Source of Information

Agency for Toxic Substances and Disease Registry (ATSDR). 2000. Toxicological Profile for Arsenic. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs™ Internet address is <http://www.atsdr.cdc.gov/toxfaq.html>. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



**APPENDIX B**  
**WEST NILE VIRUS/ST. LOUIS ENCEPHALITIS PREVENTION**

## WEST NILE VIRUS/ST. LOUIS ENCEPHALITIS PREVENTION

The following section is based upon information provided by the CDC Division of Vector-Borne Infectious Diseases. Symptoms of West Nile Virus include fever, headache, and body aches, occasionally with skin rash and swollen lymph glands, with most infections being mild. More severe infection may be marked by headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, paralysis, and, rarely, death. Most infections of St. Louis encephalitis are mild without apparent symptoms other than fever with headache. More severe infection is marked by headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, occasional convulsions (especially infants) and spastic (but rarely flaccid) paralysis. The only way to avoid infection of West Nile Virus and St. Louis encephalitis is to avoid mosquito bites. To reduce the chance of mosquito contact:

- Stay indoors at dawn, dusk, and in the early evening.
- Wear long-sleeved shirts and long pants whenever you are outdoors.
- Spray clothing with repellents containing permethrin or DEET (N, N-diethyl-meta-toluamide), since mosquitoes may bite through thin clothing.
- Apply insect repellent sparingly to exposed skin. An effective repellent will contain 35% DEET. DEET in high concentrations (greater than 35%) provides no additional protection.
- Repellents may irritate the eyes and mouth.
- Whenever you use an insecticide or insect repellent, be sure to read and follow the manufacturer's directions for use, as printed on the product.

**APPENDIX C**  
**REPORT FORMS**

## WEEKLY SAFETY REPORT FORM

Week Ending: \_\_\_\_\_ Project Name/Number: \_\_\_\_\_

Report Date: \_\_\_\_\_ Project Manager Name: \_\_\_\_\_

Summary of any violations of procedures occurring that week:

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Summary of any job related injuries, illnesses, or near misses that week:

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Summary of air monitoring data that week (include and sample analyses, action levels exceeded, and actions taken):

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---

Comments:

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---

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Name: \_\_\_\_\_ Company: \_\_\_\_\_

Signature: \_\_\_\_\_ Title: \_\_\_\_\_



**INJURED - ILL:**

Name: \_\_\_\_\_ SSN: \_\_\_\_\_

Address: \_\_\_\_\_ Age: \_\_\_\_\_

Length of Service: \_\_\_\_\_ Time on Present Job: \_\_\_\_\_

Time/Classification: \_\_\_\_\_

**SEVERITY OF INJURY OR ILLNESS:**

\_\_\_ Disabling                      \_\_\_ Non-disabling                      \_\_\_ Fatality

\_\_\_ Medical Treatment                      \_\_\_ First Aid Only

**ESTIMATED NUMBER OF DAYS AWAY FROM JOB:** \_\_\_\_\_

**NATURE OF INJURY OR ILLNESS:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**CLASSIFICATION OF INJURY:**

- |                    |                       |                            |
|--------------------|-----------------------|----------------------------|
| ___ Abrasions      | _____ Dislocations    | _____ Punctures            |
| ___ Bites          | _____ Faint/Dizziness | _____ Radiation Burns      |
| ___ Blisters       | _____ Fractures       | _____ Respiratory Allergy  |
| ___ Bruises        | _____ Frostbite       | _____ Sprains              |
| ___ Chemical Burns | _____ Heat Burns      | _____ Toxic Resp. Exposure |
| ___ Cold Exposure  | _____ Heat Exhaustion | _____ Toxic Ingestion      |
| ___ Concussion     | _____ Heat Stroke     | _____ Dermal Allergy       |
| ___ Lacerations    |                       |                            |

Part of Body Affected: \_\_\_\_\_

Degree of Disability: \_\_\_\_\_

Date Medical Care was Received: \_\_\_\_\_

Where Medical Care was Received: \_\_\_\_\_

Address (if off-site): \_\_\_\_\_

(If two or more injuries, record on separate sheets)

**PROPERTY DAMAGE:**

Description of Damage: \_\_\_\_\_

Cost of Damage:                   \$ \_\_\_\_\_

**ACCIDENT/INCIDENT LOCATION:** \_\_\_\_\_

**ACCIDENT/INCIDENT ANALYSIS:** Causative agent most directly related to accident/incident  
(Object, substance, material, machinery, equipment, conditions)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Was weather a factor?: \_\_\_\_\_

Unsafe mechanical/physical/environmental condition at time of accident/incident (Be specific):

\_\_\_\_\_  
\_\_\_\_\_

Personal factors (Attitude, knowledge or skill, reaction time, fatigue):

\_\_\_\_\_

**ON-SITE ACCIDENTS/INCIDENTS:**

Level of personal protection equipment required in Site Safety Plan:

\_\_\_\_\_

Modifications:

Was injured using required equipment?:

\_\_\_\_\_

If not, how did actual equipment use differ from plan?:

\_\_\_\_\_  
\_\_\_\_\_

**ACTION TAKEN TO PREVENT RECURRENCE:** (Be specific. What has or will be done? When will it be done? Who is the responsible party to insure that the correction is made?)

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**ACCIDENT/INCIDENT REPORT REVIEWED BY:**

\_\_\_\_\_  
SSO Name Printed

\_\_\_\_\_  
SSO Signature

**OTHERS PARTICIPATING IN INVESTIGATION:**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

**ACCIDENT/INCIDENT FOLLOW-UP:**    Date: \_\_\_\_\_

Outcome of accident/incident: \_\_\_\_\_

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Physician's recommendations: \_\_\_\_\_

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Date injured returned to work: \_\_\_\_\_  
Follow-up performed by: \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

**ATTACH ANY ADDITIONAL INFORMATION TO THIS FORM**

**APPENDIX D**  
**EMERGENCY HAND SIGNALS**

## EMERGENCY SIGNALS

In most cases, field personnel will carry portable radios for communication. If this is the case, a transmission that indicates an emergency will take priority over all other transmissions. All other site radios will yield the frequency to the emergency transmissions.

Where radio communications is not available, the following air-horn and/or hand signals will be used:

### EMERGENCY HAND SIGNALS

**OUT OF AIR, CAN'T BREATHE!**



**Hand gripping throat**

**LEAVE AREA IMMEDIATELY,  
NO DEBATE!**

**(No Picture) Grip partner's wrist or place both hands around waist**

**NEED ASSISTANCE!**



**Hands on top of head**

**OKAY! – I'M ALL RIGHT!**

**- I UNDERSTAND!**



**Thumbs up**

**NO! - NEGATIVE!**



**Thumbs down**

**APPENDIX E-3:**  
**Phase II Subsurface Investigation Report**

# **Portions of the American Museum of Natural History and Theodore Roosevelt Park**

**NEW YORK, NEW YORK**

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## **Subsurface (Phase II) Investigation**

**AKRF Project Number: 12166**

**CEQR Number: 16DPR004M**

**Prepared for:**

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1270 Avenue of the Americas, 24<sup>th</sup> Floor  
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**JULY 2017**

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## 1.0 INTRODUCTION

AKRF, Inc. (AKRF) conducted a Subsurface (Phase II) Investigation of portions of the American Museum of Natural History (AMNH or the Museum) and Theodore Roosevelt Park, related to the proposed construction of the Gilder Center, which entails partial or full demolition of portions of the Museum including Sections 1, 7A, 8, 11, 11A, 11B, 15, 15A, 16, and 17, Weston Pavilion, adjacent Museum yards, and an approximately 75,000-square foot (SF) portion of Theodore Roosevelt Park, defined legally as Tax Block 1130, part of Lot 1. The Phase II investigation areas, along with the remainder of the Museum buildings and grounds, is located at 200 Central Park West, on New York City-owned mapped parkland under the jurisdiction of the New York City Department of Parks and Recreation (NYC Parks), as shown on Figure 1.

The scope of the Phase II investigation was established in AKRF's Subsurface (Phase II) Investigation Sampling Protocol and Health and Safety Plan, dated February 2017, and a letter of approval provided by the New York City Department of Environmental Protection (NYCDEP), dated February 27, 2017. The Phase II scope is based on the findings of AKRF's November 2016 Phase I Environmental Site Assessment (ESA) and included a geophysical survey, and the advancement of soil borings with the collection and laboratory analysis of soil, groundwater, and soil vapor samples. This report describes the methods and results of the investigation.

## 2.0 SITE BACKGROUND

### 2.1 Site Characterization

The Phase II investigation areas consist of portions of the Museum including an open air concrete-paved area (the Yard) in the western-central portion of the current Museum footprint, and landscaped areas to the north, south, and west, as shown on Figure 2.

Based on U.S. Geological Survey mapping, the Museum lies at an elevation of approximately +85 to +90 feet above the North American Vertical Datum (NAVD) of 1988 (an approximation of mean sea level), with the ground within the landscaped area sloping down to the east. The Yard was observed to be approximately 13.5 to 14.5 feet lower than the landscaped area, isolated from landscaped areas by retaining walls in the northern portion of the Yard or Museum buildings and sloped driveways to the south. For the purposes of this report, all depths to subsurface findings, including soil types, bedrock, and groundwater will be presented as existing grade relative to the landscaped area.

Based on USGS mapping, depth to bedrock in the vicinity of the Museum is anticipated to be highly variable (approximately 5 to 35 feet below existing grade relative to the landscaped area). During the Phase II investigation, evidence of weathered bedrock was observed as shallow as 2 to 3 feet below existing grade (relative to the landscaped area).

Groundwater was observed between approximately 18 and 23 feet below existing grade (relative to the landscaped area); which, based on the presence of shallow weathered bedrock, is likely to be attributed to a perched water table. Though the local topography may indicate that groundwater at the Museum might flow towards the east, groundwater in the greater area surrounding the Museum is anticipated to flow in a southwesterly direction toward the Hudson River, approximately 3,200 feet west of the Museum. Actual groundwater depth and flow beneath the Museum can be affected by many factors including the A/B/C/D Line subway tunnels approximately 450 feet east of the Museum (east-adjacent to the Museum superblock beneath Central Park West), other subsurface features or obstructions such as basements or utilities, and other factors. Groundwater in Manhattan is not used as a source of potable water.

## 2.2 Previous Environmental Investigations

AKRF is aware of two previous environmental investigations conducted for the Property:

*American Museum of Natural History – Portions of the American Museum of Natural History and Theodore Roosevelt Park, New York, New York - Phase I ESA, AKRF, November 2016*

The Phase I ESA reviewed a variety of sources including: current and historical land use maps; state and federal environmental regulatory databases; computerized New York City Fire Department and Buildings Department records; and previous studies, and included reconnaissance of the Site and its surroundings.

The Site buildings were constructed between 1902 and 2000 as parts of Museum expansions, and have been used as historically as exhibition, research, educational, and maintenance purposes associated with the Museum.

The Phase I ESA identified the following Recognized Environmental Conditions (RECs), which were further investigated during this Phase II Investigation:

- Historical petroleum and chemical storage and use at the Site that might represent RECs included:

Section 16 – One 1,080-gallon diesel aboveground storage tank (AST) located within an epoxy-coated room with secondary containment berm (i.e., a low concrete berm constructed around the perimeter of the tank);

Section 17 – One empty 250-gallon parts washer tank formerly containing trichloroethylene (TCE) (which was formerly used to remove lipids and fats from vertebrate zoology specimens), and a 500-gallon double-walled diesel AST located on the first floor (a day tank associated with the AST located in Section 16); and

Exterior yard – Approximately 17 drums (up to 55 gallons) of ethanol, isopropanol, research space waste, and diesel in secured chemical storage sheds. Chemical storage sheds included secondary containment systems, and were regularly inspected to prevent spillage. Floor drains noted in the exterior yard and other areas throughout the Site were reported to be connected to the municipal sewer system and were in good condition with no evidence of releases or spills. Spill prevention kits were also identified in the drum storage area.

Regulatory databases identified the Museum as a small quantity generator (SQG) of hazardous waste from 2005 to 2016, and historical large quantity generator (LQG) of hazardous waste from 1984 to 2005. Chemical waste was disposed of off-site by Clean Harbors, a permitted chemical waste hauler. The chemical storage areas are New York City Fire Department (FDNY)-permitted, with no evidence of a release noted on or concerning the project site.

- The Museum was registered in the New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage (PBS) database with three ASTs and one underground storage tank (UST). Of these, two ASTs and one UST were located at the Site. These included: the two diesel ASTs discussed above; one closed-in-place 1,080-gallon double-wall steel UST with interstitial monitoring and high-level alarm in the exterior yard; and a former 50-gallon AST in Section 1, which was associated with the 1,080-gallon UST. The 50-gallon AST was registered with NYSDEC as being in-service, but was removed in September 2016. The on-site storage tanks were registered as having spill prevention measures including secondary containment in the form of curbs or double-wall construction,

interstitial alarms, and high-level alarms, and no evidence of a release on or near the Site was noted.

- Other historical uses of the Site included use of Section 17 (the Power House) as a coal-fired electric power plant in, and Section 15 as an auto house (i.e., garage) and power house. During the reconnaissance, no evidence of coal storage or residue was observed and there is, therefore, no present information indicating that the proposed project is expected to be complicated by the former presence of the power house and auto house.

The Phase I ESA also identified the following *de minimis* conditions:

- Arsenic-preserved hides were stored in dedicated areas on the fifth floor of Section 1, and on the third floor of Section 7A. Arsenic preservation was a common preservation technique for natural history collections between approximately 1930 and 1990. Preserved hides were stored in designated cabinets.
- Chemical storage in Section 8 was noted on the fifth floor in a FDNY-permitted room with a secondary containment berm. Chemicals stored included 1 liter to 5-gallons in volume of 1-butanol, ethyl alcohol, toluene, and other specimen preservation-related solvents, with no record of historic release.
- Chemical storage in Section 11B was noted on the lower level and fourth floors and included nitrate film negatives and acetate film roll storage.
- Chemical storage noted in Section 15 in the Ichthyology collections included approximately 300,000 small jars (up to five gallons) of specimens preserved in ethanol or isopropanol, large containers and drums (up to 55 gallons) of ethanol used for specimen preservation, and other containers (generally 15 gallons or less) of organic solvents and solvent wastes, with no record of historic release.
- Additional chemical storage noted in Section 17 included small containers (up to one gallon) of polyester resins, spray paints, and acids in the exhibition production shop on the fifth floor, with no record of historic release.
- In addition to the chemical storage noted above, the exterior yard was used to store 55-gallon drums of food oil waste, and liquid nitrogen in a 3,000-gallon AST, with no record of historic release.
- A proposed 30,000-gallon UST was shown on 1962 engineering plans for Section 17. However, no documentation of the UST installation was found. Museum representatives do not believe the tank was installed, and the Museum was reported to have converted from coal to Consolidated Edison steam as a heating source around the time the plans were prepared; thus, it appears the proposed UST was never installed.
- One closed-in-place 1,080-gallon double-wall UST with interstitial monitoring and high-level alarm was identified in the exterior yard. This UST was associated with the former 50-gallon day tank AST identified in Section 1.
- The following petroleum storage tanks were located in Museum areas outside of the Site boundary: one in-service 6,000-gallon double-wall fiberglass reinforced plastic UST and one in-service 200-gallon AST, both containing diesel fuel for supplying an emergency generator. These tanks were located in a courtyard in the southwestern portion of the Museum (outside of the Site boundary). No odors, staining, or spills were noted in the vicinity of the AST, and no related historical spills were documented.

- Based on the age of the Museum sections and prior subsurface investigations which identified historic fill in the northern portion of Theodore Roosevelt Park, historic fill materials may also be present beneath the Site.

Geophysical Survey, American Museum of Natural History, Hager-Richter Geoscience, Inc., March 2017

Hager-Richter Geoscience, Inc. completed a Geophysical Survey related to a geotechnical investigation lead by Langan in February 2017. The objective of the survey was to detect site utilities within the proposed redevelopment area.

- Segments of known electrical and sewer utilities, a known utility trench and small segments of possible utilities were detected. No major unknown utilities or anomalies were detected during the geophysical survey.

Geotechnical Engineering Study, American Museum of Natural History, Gilder Center, New York, New York, Langan, April 2017

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. of New York, New York (Langan) completed a Geotechnical Engineering Study to support the foundation and construction design for the proposed project.

Based upon the findings from the installation of geotechnical soil borings, groundwater wells, and test pits, the study characterized subsurface material at the Museum to consist of fill material (comprising sand with varying amounts of silt, gravel, rock fragments, and debris), underlain by sand, decomposed rock, and bedrock at varying depths. Shallow bedrock and shallow, potentially perched groundwater were noted in the subsurface.

The study concluded that any soil remaining after construction excavation would require compaction prior to shallow foundation construction, and that dewatering may be required during construction activities. A membrane-type waterproofing solution was also recommended for installation under or behind any proposed subgrade walls or slabs, which would also satisfy the vapor proofing requirements discussed in Section 4.2 of the RAP.

A copy of these previous reports are provided in Appendix A.

### 3.0 FIELD ACTIVITIES

The Phase II investigation field activities were conducted between March 27 and 30, 2017, and included a geophysical survey; the advancement of borings at ten locations with the collection and testing laboratory analysis of 18 soil samples; the installation of five temporary groundwater monitoring wells with the collection and analysis of five groundwater samples; and the installation of seven soil vapor points with the collection and analysis of seven soil vapor samples and an ambient air sample. The sampling locations are provided on Figure 2.

#### 3.1 Geophysical Survey

A geophysical survey was conducted by On Point Locating (On Point) prior to advancing the borings to clear the proposed sampling locations of subsurface utilities and to search for potential undocumented USTs. A ground-penetrating radar (GPR) and magnetometer survey was conducted throughout accessible areas of the property. A copy of the Geophysical Engineering Survey Report is included as Appendix B.

The geophysical survey identified multiple utility lines, and some boring locations were shifted within 5 to 10 feet of the initial proposed locations as necessary to avoid utility lines and other

obstructions. The survey did not identify subsurface anomalies consistent with the presence of undocumented USTs.

### 3.2 Soil Sampling

To collect the soil samples, eight soil borings (SB-1 through SB-8) were advanced using a track-mounted Geoprobe® direct push probe (DPP) unit by Cascade Drilling and Technical Services (Cascade) and two soil borings (SB-9 and SB-10) were advanced using an AMS soil auger (hand auger) at the locations noted on Figure 2. Soil cores were collected using 5-foot long, 2-inch diameter, stainless steel, macrocore, piston rod samplers fitted with an internal acetate liner and advanced to a maximum depth of 25 feet below existing grade (relative to the landscaped area).

Soil was field-screened using a photoionization detector (PID), which measures relative concentrations of volatile organic compounds (VOCs) and was calibrated at the start of the work day with 100 parts per million (ppm) isobutylene. At each boring location, AKRF field personnel recorded and documented subsurface conditions, including any evidence of contamination (i.e., odors, staining, etc.). The soil boring logs are provided in Appendix C.

Soil samples were collected from each boring for testing laboratory analysis based on any field observations (e.g., odor and staining) and/or PID readings. If no evidence of contamination (visual, odor or PID readings) was apparent, the samples were selected as follows, based on the NYCDEPs comments to the Subsurface Phase II Work Plan:

- For deep borings SB-1 to SB-8:
  - From 0 to 2 feet below existing grade; and
  - Between 2 feet below existing grade and the maximum proposed excavation depth (biased towards soil exhibiting evidence of contamination) or, if no evidence of contamination was observed, from the groundwater interface and/or the 2-foot interval below the maximum proposed excavation depth, whichever was encountered first.
- For shallow borings SB-9 and SB-10 advanced in the park, only one soil sample was collected from 0 to 2 feet below existing grade.

Soil samples were collected using dedicated or properly decontaminated sampling equipment, placed into testing laboratory-supplied containers within a chilled cooler, and submitted via courier to TestAmerica Laboratories, Inc (TestAmerica), of Edison, NJ, a New York State Environmental Laboratory Approval Program (NELAP)-certified testing laboratory. The soil samples were analyzed for Target Compound List (TCL) VOCs by United States Environmental Protection Agency (EPA) Method 8260, TCL semi-volatile organic compounds (SVOCs) by EPA Method 8270, polychlorinated biphenyls (PCBs) by EPA Method 8082, pesticides by EPA Method 8081, and Target Analyte List (TAL) metals by EPA Method 6010/6020.

### 3.3 Groundwater Sample Collection and Analysis

Groundwater monitoring wells (GW-1, GW-2, GW-4, GW-5 and GW-7) were installed in five of the soil borings (SB-1, SB-2, SB-4, SB-5 and SB-7), in areas identified in AKRF's Phase II work plan. The temporary monitoring wells consisted of 1-inch diameter polyvinyl chloride (PVC) with a 10-foot, slotted-screen interval. The wells were installed such that the 10-foot screen interval was centered about the observed water table. Monitoring well construction logs are included as Appendix D.

The monitoring wells were developed by purging a minimum of three well volumes using a peristaltic pump prior to sampling. During purging, a LaMotte 2020 turbidity meter was used to take turbidity readings every five minutes until purging requirements were met and turbidity

readings were below 50 nephelometric turbidity units (NTUs) for three consecutive readings. The monitoring wells were then sampled using the peristaltic pump. Groundwater samples were collected into testing laboratory-issued sample containers, stored in an ice-filled cooler to maintain a temperature of 4 °C, and delivered under chain-of-custody protocol by courier to TestAmerica. The samples were analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, PCBs by EPA Method 8082, pesticides by EPA Method 8081, and TAL metals (both total and filtered analysis) by EPA Method 6010/6020.

### 3.4 Soil Vapor Sample Collection and Analysis

Seven soil vapor sample points (SV-1 through SV-7) were installed adjacent to seven of the soil borings (SB-1, SB-2, SB-3, SB-4, SB-5, SB-6, and SB-7) in areas identified in AKRF's Phase II work plan. At each location, a 6-inch screen implant (probe) with dedicated Teflon tubing and threaded fittings was installed to depths ranging from approximately 17 to 20 feet below existing grade (relative to the landscaped area), the proposed foundation depth. The area around the probes were backfilled with clean silica sand to 2 feet below the surface, and hydrated bentonite was used to fill the remaining void to grade to prevent short-circuiting of ambient air into the soil gas sampling point.

Prior to sampling, the soil vapor points were purged of approximately three sample volumes using a SKC PCXR8 air pump. During purging, an inverted bucket was placed over the sampling point and helium gas was introduced through a small hole in the bucket to saturate the atmosphere around the sample port with helium gas. The purged vapors were collected into a Tedlar bag and monitored using a Dielectric Technologies Model MGD-2002 portable helium detector to check for short-circuiting of ambient air into the vapor sampling point and verify the adequacy of the bentonite seal. Helium concentrations of less than the NYSDOH threshold value of 10 percent were considered sufficient to verify a tight seal. All soil vapor points passed the seal integrity tests with helium readings of not detected (ND) or significantly less than 10 percent. Purged vapors were also field-screened for VOCs using a calibrated PID.

Soil vapor probes were connected via Teflon tubing to testing laboratory-supplied, batch-certified clean 6-liter Summa<sup>®</sup> canisters equipped with one hour flow regulators. Vacuum readings were collected at the start and end of the sampling period. The samples were collected over approximately one hour or until canister vacuum was observed to have dropped between -10 and -5 inches of mercury (inHg), whichever occurred first. The canisters were labeled and shipped to Alpha Analytical Laboratories of Westborough, Massachusetts using standard chain-of-custody procedures and were analyzed for VOCs by EPA Method TO-15. Soil vapor sampling logs are provided in Appendix E.

### 3.5 Field Observations

#### Soil Sampling

Brown fine sand and silt, with some clay was observed from grade surface to the terminus of the boring, between 18 and 25 feet below existing grade (relative to the landscaped area). Weathered rock was interspersed throughout the sand and silty layer, starting as shallow as 2 feet below existing grade (relative to the landscaped area). PID readings (ranging from 1.2 to 12.2 ppm) were observed in three soil borings (SB-1, SB-6, and SB-7). No petroleum-like odors or staining were observed in any soil borings. Results of the field screening data are provided on the soil boring logs in Appendix C.

Groundwater

Groundwater was encountered in all four monitoring wells between approximately 18 and 23 feet below existing grade (relative to the landscaped area), with a potential slight gradient towards the east, based on field depth to water measurements. Petroleum-like odors or sheens were not noted in groundwater during sampling at all four monitoring wells.

Soil Vapor

Soil vapor points were screened between 17 and 20 feet below existing grade (relative to the landscaped area). Pre-sampling PID screening results ranged from 1.6 ppm at SV-3 to 13 ppm at SV-7.

## 4.0 TESTING LABORATORY ANALYTICAL RESULTS

### 4.1 Soil Analytical Results

Soil sample testing laboratory analytical results were compared to the NYSDEC 6 New York Codes, Rules, and Regulations (NYCRR) Part 375 Soil Cleanup Objectives (SCOs) for Restricted Residential use (RRSCOs) and Commercial use (CSCOs). The CSCOs were developed for commercial uses including passive recreation uses (public uses with a limited potential for soil contact). Comparison to CSCOs also provides guidance with regard to off-site disposal of any excess soil generated during future redevelopment. Soil descriptions, observations, and PID readings were recorded on the soil boring logs provided in Appendix C. Testing laboratory analytical data sheets are included in Appendix E. Results are summarized below:

Volatile Organic Compounds (VOCs)

VOCs were not detected above the RRSCOs or CSCOs in any of the soil samples.

Acetone, a common testing laboratory contaminant, was detected in 15 soil samples at concentrations ranging from 1.4 µg/kg to 25 µg/kg, well below the RRSCO of 100,000 µg/kg and CSCO of 500,000 µg/kg. Acetone was also detected in testing laboratory blank samples, as indicated by the "B" data qualifier.

M,p-xylenes were detected in nine samples collected from borings SB-2, SB-4, SB-5, and SB-8 at concentrations ranging from 0.12 to 0.02 µg/kg, well below the RRSCO for total xylenes of 100,000 µg/kg and the CSCO for total xylenes of 500,000 µg/kg. M,p-xylenes were also detected in testing laboratory blank samples, as indicated by the "B" data qualifier.

The VOC 2-butanone was detected in four samples at concentrations ranging from 1.1 to 6.3 micrograms per kilogram (µg/kg), well below the RRSCO of 100,000 µg/kg and CSCO of 500,000 µg/kg.

Methylene chloride was detected at estimated concentrations between 0.33 µg/kg and 0.42 µg/kg in three soil samples, well below the RRSCO of 100,000 µg/kg and CSCO of 500,000 µg/kg.

Toluene was detected at an estimated concentration of 0.21 µg/kg in one sample [SB-4 (6-7)-170327], well below the RRSCO of 100,000 µg/kg and 500,000 µg/kg.

The chlorinated solvent, trichloroethene (TCE), was detected in sample SB-6(0-1)-170329 at an estimated concentration of 0.31 µg/kg, well below the RRSCO of 21,000 µg/kg and the CSCO of 200,000 µg/kg.

Low concentrations of the VOCs 1,1,2-trichloro-1,2,2-trifluoroethane, and carbon disulfide were also detected in the soil samples; however, no SCOs have been established for these analytes under NYSDEC 6 NYCRR Part 375.

Soil analytical results for VOCs are presented in Table 1a.

Semivolatile Organic Compounds (SVOCs)

Twenty-three SVOCs [2-methylnaphthalene, 4-methylphenol, acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, bis(2-ethylhexyl) phthalate, carbazole, chrysene, dibenz(a,h)anthracene, dibenzofuran, di-n-butyl phthalate, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, isophorone, naphthalene, phenanthrene, and pyrene] were detected at variable concentrations in 14 of the 18 soil samples. The SVOC detections primarily consisted of polycyclic aromatic hydrocarbons (PAHs), a class of compounds most commonly found in combustion products (such as coal ash) that are frequently found in urban fill.

Five PAHs [benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene] were detected at concentrations above their respective RRSCOs and/or CSCOs in soil sample SB-1(1-2)-170329. Benzo(a)anthracene and benzo(b)fluoranthene were detected at respective concentrations of 1,300 µg/kg and 1,600 µg/kg, above their RRSCO of 1,000 µg/kg. Benzo(a)pyrene was detected at a concentration of 1,300 µg/kg, above its RRSCO and CSCO of 1,000 µg/kg. Dibenz(a,h)anthracene was detected at a concentration of 360 µg/kg, above its RRSCO of 330 µg/kg. Indeno(1,2,3-cd)pyrene was detected at a concentration of 1,400 µg/kg, above its RRSCO of 500 µg/kg. No other SVOCs were detected in the soil samples at concentrations above their respective RRSCOs and/or CSCOs.

Soil analytical results for SVOCs are presented in Table 1b.

Metals

Twenty metals (out of the 23 analyzed) were detected in one or more soil samples. No metals were detected above their respective RRSCOs and/or CSCOs.

Metal detections included arsenic (maximum concentration of 15.6 milligrams per kilogram (mg/kg)), chromium (maximum concentration of 30 mg/kg), copper (maximum concentration of 95.8 mg/kg), lead (maximum concentration of 143 mg/kg), mercury (maximum concentration of 0.79 mg/kg), nickel (maximum concentration of 31.3 mg/kg), silver (maximum concentration of 0.36 mg/kg), and zinc (maximum concentration of 108 mg/kg). Soil analytical results for metals are presented in Table 1c.

Polychlorinated Biphenyls (PCBs) and Pesticides

No PCBs were detected in the soil samples above testing laboratory reporting limits.

Pesticides were not detected above their respective RRSCOs and/or CSCOs. Six pesticides (4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin, endosulfan II, and endosulfan sulfate) were detected in samples SB-1, SB-6, SB-7, and SB-9, with concentrations ranging from 2.4 mg/kg to 190 mg/kg. Soil analytical results for PCBs and pesticides are presented in Table 1d.

## 4.2 Groundwater Analytical Results

Groundwater sample testing laboratory analytical results were compared to the NYSDEC Technical and Operational Guidance Series (1.1.1): Class GA Ambient Water Quality Standards and Guidance Values (AWQS), including Type E aesthetic standards for protection of freshwaters. It should be noted that this is a very conservative comparison as the Class GA AWQS are drinking water standards and guidelines, as groundwater in Manhattan is not used as a potable water source. Testing laboratory analytical data sheets are included in Appendix E.

Volatile Organic Compounds (VOCs)

VOCs were detected in two of the five groundwater samples (GW-2-170327 and GW-4-170327). Cis-1,2-dichloroethene (cis-1,2-DCE) was detected in sample GW-2-170327 at a concentration of 9.5 micrograms per liter ( $\mu\text{g/L}$ ), above the AWQS of 5  $\mu\text{g/L}$ . Tetrachloroethene (PCE) was detected in sample GW-2-170327 at a concentration of 11  $\mu\text{g/L}$ , above the AWQS of 5  $\mu\text{g/L}$ . TCE, trans-1,2-DCE, and vinyl chloride were also detected in sample GW-2-170327 at concentrations below their respective Class GA AWQSs.

Cis-1,2-DCE and PCE were also detected in groundwater sample GW-4-170327 at concentrations of 2.5  $\mu\text{g/L}$  and 1.2  $\mu\text{g/L}$ , respectively, below their respective Class GA AWQSs. TCE was also detected in sample GW-4-170327 at a concentration of 0.32  $\mu\text{g/L}$ , below the Class GA AWQS of 5  $\mu\text{g/L}$ . Trans-1,2-DCE and vinyl chloride were not detected in sample GW-4-170327.

The VOCs acetone, chloroform, dichlorodifluoromethane, MTBE, m,p-xylene, and toluene were also detected in groundwater samples collected from MW-2 and MW-4, at trace concentrations well below their respective Class GA AWQS. No other VOCs were detected in any of the groundwater samples. VOCs were not detected in either of the aqueous trip blanks.

Groundwater analytical results for VOCs are presented in Table 2a.

Semivolatile Organic Compounds (SVOCs)

The SVOC naphthalene was detected in groundwater samples GW-1-170329 and GW-4-170327 at estimated concentrations of 2.4  $\mu\text{g/L}$  and 1.9  $\mu\text{g/L}$ , respectively, below its AWQS of 10  $\mu\text{g/L}$ . Phenanthrene was detected in samples GW-1-170329 and GW-4-170327 at estimated concentrations of 0.97  $\mu\text{g/L}$  and 1.5  $\mu\text{g/L}$ , respectively, below its AWQS of 50  $\mu\text{g/L}$ . SVOCs were not detected in the remaining groundwater samples at concentrations above testing laboratory reporting limits.

Groundwater analytical results for VOCs are presented in Table 2b.

Metals

Twenty-one metals were detected in the unfiltered groundwater samples (total metals analysis). Of the detections, 11 metals (beryllium, chromium, copper, iron, lead, magnesium, manganese, mercury, nickel, sodium, and thallium), were detected at concentrations above their respective AWQS in at least one groundwater sample. Beryllium was detected in sample GW-1-170329 at a concentration of 5.6  $\mu\text{g/L}$ , above its AWQS of 3  $\mu\text{g/L}$ . Chromium was detected in sample GW-1-170329 at a concentration of 117  $\mu\text{g/L}$ , above its AWQS of 50  $\mu\text{g/L}$ . Copper was detected in sample GW-1-170329 at a concentration of 201  $\mu\text{g/L}$ , above its AWQS of 50  $\mu\text{g/L}$ . Iron was detected in all five groundwater samples at concentrations ranging from 1,160  $\mu\text{g/L}$  to 108,000  $\mu\text{g/L}$ , above the Class GA Type E standard of 300  $\mu\text{g/L}$ . Lead was detected in sample GW-1-170329 at a concentration of 345  $\mu\text{g/L}$ , above its AWQS of 25  $\mu\text{g/L}$ . Magnesium was detected in sample GW-2-170327 at a concentration of 55,300  $\mu\text{g/L}$ , above its AWQS of 35,000  $\mu\text{g/L}$ . Manganese was detected above the Class GA Type E standard of 300  $\mu\text{g/L}$  in all groundwater samples except for GW-5-170328 at concentrations ranging from 2,530  $\mu\text{g/L}$  to 5,700  $\mu\text{g/L}$ . Mercury was detected in sample GW-1-170329 at a concentration of 1.7  $\mu\text{g/L}$ , above its AWQS of 0.7  $\mu\text{g/L}$ . Nickel was detected in sample GW-1-170329 at a concentration of 107  $\mu\text{g/L}$ , above its AWQS of 100  $\mu\text{g/L}$ . Sodium was detected in all five groundwater samples at concentrations ranging from 21,800  $\mu\text{g/L}$  to 287,000  $\mu\text{g/L}$ , above its AWQS of 20,000  $\mu\text{g/L}$ . Thallium was detected in sample GW-1-170329 at a concentration of 1.7  $\mu\text{g/L}$ , above its AWQS of 0.5  $\mu\text{g/L}$ .

Sixteen metals were detected in the filtered groundwater samples (dissolved metals analysis). Generally, concentrations of metals in the dissolved analysis were lower than those in the total

analysis, with the exception of calcium, potassium, and sodium. Of the detections, four metals (iron, magnesium, manganese, and sodium), were detected at concentrations above their respective AWQS in at least one groundwater sample. Iron was detected in three samples (GW-2-170327, GW-5-170328, and GW-7-170330) at concentrations ranging from 352 µg/L to 448 µg/L, above the Class GA Type E standard of 300 µg/L. Magnesium was detected in sample GW-2-170327 and GW-4-170327 at concentrations of 52,100 µg/L and 36,300 µg/L, respectively, above its AWQS of 35,000 µg/L. Manganese was detected in all groundwater samples above the Class GA Type E standard of 300 µg/L except for GW-5-170328 at concentrations ranging from 378 µg/L to 5,240 µg/L. Sodium was detected in all five groundwater samples at concentrations ranging from 22,300 µg/L to 272,000 µg/L, above its AWQS of 20,000 µg/L.

Groundwater analytical results for metals are presented in Table 2c.

#### Polychlorinated Biphenyls (PCBs) and Pesticides

No PCBs or pesticides were detected in the groundwater samples above testing laboratory reporting limits. Groundwater analytical results for metals are presented in Table 2d.

### **4.3 Soil Vapor Analytical Results**

Since there are no regulatory guidance values for VOCs in soil vapor, soil vapor testing laboratory analytical results were compared to the New York State Department of Health (NYSDOH) Indoor Air Guidance Values (AGVs) of the *Final Guidance for Evaluation Soil Vapor Intrusion in the State of New York*, dated October 2006, as revised in the September 2013 and August 2015 fact sheets for PCE and TCE.

Twenty-nine VOCs were detected in the soil vapor and ambient air samples. at individual concentrations up to 140 micrograms per cubic meter (µg/m<sup>3</sup>). TCE was detected above the AGV of 2 µg/m<sup>3</sup> in soil vapor sample SV-5-170328, at a concentration of 4 µg/m<sup>3</sup>. TCE was also detected in soil vapor sample SV-2-170328 at a concentration of 1 µg/m<sup>3</sup>. Acetone, a common testing laboratory contaminant, was detected in all soil vapor samples and in the ambient air sample at concentrations ranging from 75 µg/m<sup>3</sup> to 3,700 µg/m<sup>3</sup>. Many of the detected VOCs were also detected in the ambient air sample. Soil vapor and ambient air analytical results are presented in Table 3.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

AKRF, Inc. (AKRF) conducted a Subsurface (Phase II) Investigation of portions of the American Museum of Natural History (AMNH or the Museum) and Theodore Roosevelt Park, related to the proposed construction of the Gilder Center, which entails partial or full demolition of portions of the Museum including Sections 1, 7A, 8, 11, 11A, 11B, 15, 15A, 16, and 17, Weston Pavilion, adjacent Museum yards, and an approximately 75,000-square foot (SF) portion of Theodore Roosevelt Park, defined legally as Tax Block 1130, part of Lot 1. The Phase II investigation area, along with the remainder of the Museum buildings and grounds, is located at 200 Central Park West, on New York City-owned mapped parkland under the jurisdiction of the New York City Department of Parks and Recreation (NYC Parks).

The scope of the Phase II investigation was established in AKRF's Subsurface (Phase II) Investigation Sampling Protocol and Health and Safety Plan, dated February 2017, and a letter of approval provided by the New York City Department of Environmental Protection (NYCDEP), dated February 27, 2017. The Phase II scope is based on the findings of AKRF's November 2016 Phase I Environmental Site Assessment (ESA) and included a geophysical survey, and the advancement of soil borings with the collection and testing laboratory analysis of soil, groundwater, and soil vapor samples. The following conclusions and recommendations are based upon the findings described in this report, but are subject to the Limitations described in Sections 6.0.

Brown fine sand and silt, with some clay was observed from grade surface to the terminus of each boring (between 18 and 25 feet below existing grade relative to the landscaped area). Weathered bedrock was interspersed throughout the sand and silt layer, starting as shallow as 2 feet below existing grade (relative to the grade of the landscaped area). Groundwater in the investigation area was encountered between approximately 19 and 24 feet below existing grade (relative to the landscaped area), and based on local topography, is expected to flow in an easterly direction. Based on the presence of weathered bedrock at shallow depths throughout the investigation areas, the observed groundwater may be attributed to water tables perched above a shallow bedrock layer. Groundwater in this part of Manhattan is not used as a potable source.

### Conclusions

- The geophysical survey identified multiple utility lines, and some boring locations were shifted within 5 to 10 feet of the initial proposed locations as necessary to avoid utility lines and other obstructions. The geophysical survey did not identify subsurface anomalies consistent with the presence of undocumented USTs.
- During field screening of soil samples, PID readings ranging from approximately 1 to 12 ppm were noted in three soil borings. Soil samples were biased toward intervals with PID detections. No petroleum-like odors, sheens, staining or other potential signs of soil contamination were observed during the Phase II investigation.
- Groundwater was observed between approximately 19 and 24 feet below existing grade (relative to the landscaped area) and, based on the presence of weathered bedrock in soil borings, may be attributed to a perched water table. No odors, sheens, or other potential signs of groundwater contamination were observed during the Phase II investigation.
- No VOCs were detected in soil samples above their respective NYSDEC Part 375 RRSCOs or CSCOs. A trace TCE detection was identified at sample location SB-6 at a depth between 0 and 1 feet below grade. TCE was not detected in any other soil samples, and the TCE detection at SB-6 is not indicative of on-site TCE contamination of significance.

- Multiple SVOCs, primarily comprising PAHs, were detected in 14 of 18 soil samples. Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene were detected at concentrations above their respective RRSCOs in soil sample SB-1(1-2)-170329, with the benzo(a)pyrene detection above the CSCO as well. The exceedances were not significantly above the RRSCOs and CSCOs however, and were at concentrations typical of soil at many urban sites, including throughout Manhattan. These detections will be addressed by the provisions specified in the Remedial Action Plan (RAP).
- No metals, PCBs, or pesticides were detected in soil samples above their respective RRSCOs and CSCOs. Metals detections were at concentrations typical of soil at urban sites. Pesticides were detected at sampling locations in landscaped areas of the Park, making it likely that the low pesticide detections were attributable to grounds keeping activities. These detections will be addressed by the provisions specified in the RAP.
- PCE and cis-1,2-DCE were detected in one groundwater sample at concentrations slightly above their respective Class GA AWQS. No other VOCs were detected above their respective Class GA AWQS. These detections will be addressed by the provisions specified in the RAP.
- No SVOCs were detected at concentrations above their respective Class GA AWQSs. No PCBs or pesticides were detected in groundwater samples above testing laboratory reporting limits.
- Metals were detected in the filtered and unfiltered groundwater samples, with 21 Class GA AWQS exceedances in unfiltered samples, and 16 Class GA AWQS exceedances in the filtered samples, indicating that concentrations of at least five metals (beryllium, chromium, lead, mercury, and nickel) were attributable to metals absorbed to suspended solids in the unfiltered groundwater samples. The metals detections were typical of groundwater at many urban sites, including throughout Manhattan. These detections will be addressed by the provisions specified in the RAP.
- TCE was detected in soil vapor at one location at a concentration of 4  $\mu\text{g}/\text{m}^3$ , slightly exceeding the NYSDOH Air Guideline Value for indoor air quality of 2  $\mu\text{g}/\text{m}^3$ . No other VOCs were detected above the NYSDOH Air Guideline Values for indoor air quality and the remaining VOC detections were relatively low and typical of soil vapor at many urban sites, including throughout Manhattan. The NYSDOH Air Guideline Values for indoor air quality are guidance values for protection of indoor air quality and not intended to be used for direct comparison of soil vapor concentrations, which are expected to decrease due to retardation, decay, and dilution in the subsurface (collectively referred to as site-specific attenuation factors) prior to impacting any enclosed spaces. Based upon the soil vapor sampling data collected as part of this Phase II Investigation and the site-specific attenuation factors, the existing conditions pose a minimal risk for vapor intrusion for the existing buildings and proposed Gilder Center construction, which will be controlled by the provisions specified in the RAP.

Detections in soil, groundwater, and soil vapor were generally at concentrations either below or not significantly elevated above their respective regulatory guidance. As such, the following recommendations to be implemented during any future construction activities are expected to fully address any potential concerns related to any contamination identified in this Phase II report:

- To address the known and potential unexpected contamination during redevelopment, a RAP and associated Construction Health and Safety Plan (CHASP) should be prepared for implementation during proposed construction and submitted to NYCDEP for review and approval, which will summarize environmental mitigation measures, including pre-construction ACM surveys, soil stockpiling, soil disposal and transportation; dust control; contingency measures if additional petroleum storage tanks or other contamination should be unexpectedly encountered; and a minimum two foot clean fill buffer in any landscaped or uncapped areas, designed to control or avoid the

potential for human or environmental exposure to known or unexpectedly encountered hazardous materials during and following construction of the proposed project. The CHASP should include measures for worker and community protection, including personal protective equipment, dust control, air monitoring, and emergency response procedures.

- During any subsurface disturbance, surplus excavated soil and debris will be handled and disposed of in accordance with applicable regulatory requirements. All material intended for off-site disposal will be characterized and managed in accordance with the requirements of the intended receiving facility and applicable laws. Evidence of a spill (if any) located or found during future investigation or disturbance will be reported to NYSDEC and addressed in accordance with applicable requirements.
- During construction of the proposed project, any unexpectedly encountered USTs (or buried former ASTs) will be properly closed and/or removed in accordance with applicable regulations.
- Groundwater sampled during the Phase II investigation contained low levels of VOCs. Construction dewatering during construction will be permitted prior to discharging, and conducted in accordance with NYCDEP sewer discharge requirements.
- This investigation did not reveal substantial concerns related to vapor intrusion. However, as the proposed project is expected to extend beyond the observed groundwater table, a waterproofing membrane, such as the sheet-applied Grace Preprufe® product line, will be installed as part of foundation construction.

## 6.0 LIMITATIONS

The scope of the Phase II investigation was established in AKRF's Subsurface (Phase II) Investigation Sampling Protocol and Health and Safety Plan, dated February 2017, and in a letter of approval provided by the NYCDEP, dated February 27, 2017. The Phase II scope is also based on the findings of AKRF's November 2016 Phase I ESA, and included a geophysical survey, the advancement of soil borings, and the collection and laboratory analysis of soil, groundwater, and soil vapor samples. No significant deviations from the Sampling Protocol were required during the investigation.

The findings set forth in this report are strictly limited in time to the date of the investigation described herein, and in scope to the investigation requirements as defined in the NYCDEP-approved Subsurface (Phase II) Investigation Sampling Protocol and Health and Safety Plan. The conclusions and recommendations presented in the report are based solely on the services and any limitations described in this report.

This report contains conclusions that are based on the analysis of data collected at the time and locations noted in the report through intrusive or non-intrusive sampling. However, further investigation might reveal additional data or variations of the current data, which may differ from our understanding of the conditions presented in this report, and may require the enclosed recommendations to be reevaluated or modified.

Chemical analyses have been performed for specific parameters during the course of this investigation, as summarized in the text and tables. It should be noted that additional chemical constituents, not searched for during this investigation, may be present at the site. Due to the nature of the investigation and the limited data available, no warranty, expressed or implied, shall be construed with respect to undiscovered liabilities. The presence of biological hazards, radioactive materials, lead-based paint, and asbestos-containing materials was not investigated, beyond the extent specified in the report.

Interpretations of the data, including comparison to regulatory standards, guidelines or background values, are not opinions that these comparisons are legally applicable. Furthermore, any conclusions or recommendations should not be construed as legal advice. For such advice, the client is recommended to seek appropriate legal counsel. Disturbance, handling, transportation, storage, and disposal of known or potentially contaminated materials is subject to all applicable laws, which may or may not be fully described as part of this report.

The analytical data, conclusions, and/or recommendations provided in this report should not be construed in any way as a comprehensive classification of waste that may be generated during future disturbance at the Museum. Waste(s) generated at the site, including excess soil, may be considered regulated solid waste and potentially hazardous waste. Requirements for intended disposal facilities should be determined beforehand as the data provided in this report may be insufficient and could vary following additional sampling.

This report may be based solely or partially on data collected, conducted, and provided by, AKRF and/or others. No warranty is expressed or implied by usage of such data. Such data may be included in other investigation reports or documentation. In addition, these reports may have been based upon available previous reports, historical records, and documentation from federal, state, and local government agencies, personal interviews, and geological mapping. This report is subject, at a minimum, to the limitations of the previous reports, historical documents, availability and accuracy of collected documentation, and personal recollection of those persons interviewed. In certain instances, AKRF has been required to assume that the information provided is accurate with limited or no corroboratory evidence.

This report is intended for use solely by Venable LLP, and the American Museum of Natural History. Reliance by third parties on the information and opinions contained herein are strictly prohibited and

requires the written consent of AKRF. AKRF accepts no responsibility for damages incurred by third parties for any decisions or actions taken based on this report. This report must be used, interpreted, and presented in its entirety.

## 7.0 REFERENCES

1. New York State Department of Environmental Conservation, *6 NYCRR Part 375 Soil Cleanup Objectives (SCOs)*, December 14, 2006.
2. AKRF, Inc., Phase I Environmental Site Assessment, *American Museum of Natural History, Portions of the American Museum of Natural History and Theodore Roosevelt Park*, November 2016.
3. Hager-Richter Geoscience, Inc., *Geophysical Survey, American Museum of Natural History*, March 2017.
4. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C., *Geotechnical Engineering Study*, April 2017.
5. On Point Locating, *Job Report – American Museum of Natural History*, March 31, 2017.

## **TABLES**

**Table 1A**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**

New York, NY

Phase II Investigation Soil Analytical Results  
 Volatile Organic Compounds

| Client ID                             | NYSDEC                 | NYSDEC     | SB-1(1-2)-170329 | SB-1(17-18)-170329 | SB-2 (1-2)-170327 | SB-2 (8-9)-170327 | SB-3 (1-2)-170327 | SB-3 (5-6)-170327 |
|---------------------------------------|------------------------|------------|------------------|--------------------|-------------------|-------------------|-------------------|-------------------|
| Lab Sample ID                         | Part 375               | Part 375   | 460-130545-4     | 460-130545-5       | 460-130404-1      | 460-130404-2      | 460-130404-7      | 460-130404-8      |
| Date Sampled                          | Restricted Residential | Commercial | 3/29/2017        | 3/29/2017          | 3/27/2017         | 3/27/2017         | 3/27/2017         | 3/27/2017         |
|                                       | SCO                    | SCO        |                  |                    |                   |                   |                   |                   |
| µg/kg                                 | µg/kg                  | µg/kg      |                  |                    |                   |                   |                   |                   |
| 1,1,1-Trichloroethane                 | 100,000                | 500,000    | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| 1,1,2,2-Tetrachloroethane             | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 0.5 J             | 0.99 U            | 1 U               |
| 1,1,2-Trichloroethane                 | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| 1,1-Dichloroethane                    | 26,000                 | 240,000    | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| 1,1-Dichloroethene                    | 100,000                | 500,000    | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| 1,2,3-Trichlorobenzene                | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| 1,2,4-Trichlorobenzene                | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| 1,2-Dibromo-3-Chloropropane           | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| 1,2-Dichlorobenzene                   | 100,000                | 500,000    | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| 1,2-Dichloroethane                    | 3,100                  | 30,000     | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| 1,2-Dichloropropane                   | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| 1,3-Dichlorobenzene                   | 49,000                 | 280,000    | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| 1,4-Dichlorobenzene                   | 13,000                 | 130,000    | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| 1,4-Dioxane                           | 13,000                 | 130,000    | 22 U             | 20 U               | 20 U              | 20 U              | 20 U              | 21 U              |
| 2-Butanone (MEK)                      | 100,000                | 500,000    | 5.5 U            | 5.1 U              | 5.1 U             | 5.1 U             | 5 U               | 1.5 J             |
| 2-Hexanone                            | NS                     | NS         | 5.5 U            | 5.1 U              | 5.1 U             | 5.1 U             | 5 U               | 5.2 U             |
| 4-Methyl-2-pentanone (MIBK)           | NS                     | NS         | 5.5 U            | 5.1 U              | 5.1 U             | 5.1 U             | 5 U               | 5.2 U             |
| Acetone                               | 100,000                | 500,000    | 5.5 U            | 5.1 U              | 2.4 J B           | 3.9 J B           | 3.8 J B           | 17 B              |
| Benzene                               | 4,800                  | 44,000     | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Bromoform                             | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Bromomethane                          | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Carbon disulfide                      | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 0.53 J            |
| Carbon tetrachloride                  | 2,400                  | 22,000     | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Chlorobenzene                         | 100,000                | 500,000    | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Chlorobromomethane                    | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Chlorodibromomethane                  | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Chloroethane                          | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Chloroform                            | 49,000                 | 350,000    | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Chloromethane                         | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| cis-1,2-Dichloroethene                | 100,000                | 500,000    | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| cis-1,3-Dichloropropene               | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Cyclohexane                           | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Dichlorobromomethane                  | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Dichlorodifluoromethane               | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Ethylbenzene                          | 41,000                 | 390,000    | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Ethylene Dibromide                    | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Isopropylbenzene                      | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Methyl acetate                        | NS                     | NS         | 5.5 U            | 5.1 U              | 5.1 U             | 5.1 U             | 5 U               | 5.2 U             |
| Methyl tert-butyl ether               | 100,000                | 500,000    | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Methylcyclohexane                     | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Methylene Chloride                    | 100,000                | 500,000    | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| m-Xylene & p-Xylene                   | 100,000 TS             | 500,000 TS | 1.1 U            | 1 U                | 0.12 J B          | 0.2 J B           | 0.99 U            | 0.17 J B          |
| o-Xylene                              | 100,000 TS             | 500,000 TS | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Styrene                               | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Tetrachloroethene                     | 19,000                 | 150,000    | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Toluene                               | 100,000                | 500,000    | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| trans-1,2-Dichloroethene              | 100,000                | 500,000    | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| trans-1,3-Dichloropropene             | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Trichloroethene                       | 21,000                 | 200,000    | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Trichlorofluoromethane                | NS                     | NS         | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Vinyl chloride                        | 900                    | 13,000     | 1.1 U            | 1 U                | 1 U               | 1 U               | 0.99 U            | 1 U               |
| Total Conc                            | NS                     | NS         | 0                | 0                  | 2.52              | 4.6               | 3.8               | 19.2              |

**Table 1A**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**

New York, NY

Phase II Investigation Soil Analytical Results  
 Volatile Organic Compounds

| Client ID                             | NYSDEC<br>Part 375<br>Restricted<br>Residential<br>SCO | NYSDEC<br>Part 375<br>Commercial<br>SCO | SB-4 (5-6)-170327<br>460-130404-4<br>3/27/2017 | SB-4 (6-7)-170327<br>460-130404-5<br>3/27/2017 | SB-5(1-2)-170328<br>460-130460-3<br>3/28/2017 | SB-5(4.5-5.5)-170328<br>460-130460-4<br>3/28/2017 | SB-6(0-1)-170329<br>460-130545-1<br>3/29/2017 | SB-6(18-19)-170329<br>460-130545-2<br>3/29/2017 |
|---------------------------------------|--------------------------------------------------------|-----------------------------------------|------------------------------------------------|------------------------------------------------|-----------------------------------------------|---------------------------------------------------|-----------------------------------------------|-------------------------------------------------|
| Lab Sample ID                         | µg/kg                                                  | µg/kg                                   |                                                |                                                |                                               |                                                   |                                               |                                                 |
| Date Sampled                          |                                                        |                                         |                                                |                                                |                                               |                                                   |                                               |                                                 |
| µg/kg                                 |                                                        |                                         |                                                |                                                |                                               |                                                   |                                               |                                                 |
| 1,1,1-Trichloroethane                 | 100,000                                                | 500,000                                 | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| 1,1,2,2-Tetrachloroethane             | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| 1,1,2-Trichloroethane                 | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| 1,1-Dichloroethane                    | 26,000                                                 | 240,000                                 | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| 1,1-Dichloroethene                    | 100,000                                                | 500,000                                 | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| 1,2,3-Trichlorobenzene                | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| 1,2,4-Trichlorobenzene                | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| 1,2-Dibromo-3-Chloropropane           | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| 1,2-Dichlorobenzene                   | 100,000                                                | 500,000                                 | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| 1,2-Dichloroethane                    | 3,100                                                  | 30,000                                  | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| 1,2-Dichloropropane                   | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| 1,3-Dichlorobenzene                   | 49,000                                                 | 280,000                                 | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| 1,4-Dichlorobenzene                   | 13,000                                                 | 130,000                                 | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| 1,4-Dioxane                           | 13,000                                                 | 130,000                                 | 21 U                                           | 21 U                                           | 22 U                                          | 22 U                                              | 21 U                                          | 19 U                                            |
| 2-Butanone (MEK)                      | 100,000                                                | 500,000                                 | 1.1 J                                          | 5.5                                            | 5.5 U                                         | 5.5 U                                             | 5.3 U                                         | 4.7 U                                           |
| 2-Hexanone                            | NS                                                     | NS                                      | 5.3 U                                          | 5.3 U                                          | 5.5 U                                         | 5.5 U                                             | 5.3 U                                         | 4.7 U                                           |
| 4-Methyl-2-pentanone (MIBK)           | NS                                                     | NS                                      | 5.3 U                                          | 5.3 U                                          | 5.5 U                                         | 5.5 U                                             | 5.3 U                                         | 4.7 U                                           |
| Acetone                               | 100,000                                                | 500,000                                 | 13 B                                           | 24 B                                           | 1.7 J B                                       | 2.6 J B                                           | 5.3 U                                         | 11 B                                            |
| Benzene                               | 4,800                                                  | 44,000                                  | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Bromoform                             | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Bromomethane                          | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Carbon disulfide                      | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Carbon tetrachloride                  | 2,400                                                  | 22,000                                  | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Chlorobenzene                         | 100,000                                                | 500,000                                 | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Chlorobromomethane                    | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Chlorodibromomethane                  | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Chloroethane                          | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Chloroform                            | 49,000                                                 | 350,000                                 | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Chloromethane                         | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| cis-1,2-Dichloroethene                | 100,000                                                | 500,000                                 | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| cis-1,3-Dichloropropene               | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Cyclohexane                           | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Dichlorobromomethane                  | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Dichlorodifluoromethane               | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Ethylbenzene                          | 41,000                                                 | 390,000                                 | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Ethylene Dibromide                    | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Isopropylbenzene                      | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Methyl acetate                        | NS                                                     | NS                                      | 5.3 U                                          | 5.3 U                                          | 5.5 U                                         | 5.5 U                                             | 5.3 U                                         | 4.7 U                                           |
| Methyl tert-butyl ether               | 100,000                                                | 500,000                                 | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Methylcyclohexane                     | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Methylene Chloride                    | 100,000                                                | 500,000                                 | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 0.42 J                                            | 1.1 U                                         | 0.94 U                                          |
| m-Xylene & p-Xylene                   | 100,000 TS                                             | 500,000 TS                              | 0.13 J B                                       | 0.15 J B                                       | 0.15 J                                        | 0.14 J                                            | 1.1 U                                         | 0.94 U                                          |
| o-Xylene                              | 100,000 TS                                             | 500,000 TS                              | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Styrene                               | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Tetrachloroethene                     | 19,000                                                 | 150,000                                 | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Toluene                               | 100,000                                                | 500,000                                 | 1.1 U                                          | 0.21 J                                         | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| trans-1,2-Dichloroethene              | 100,000                                                | 500,000                                 | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| trans-1,3-Dichloropropene             | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Trichloroethene                       | 21,000                                                 | 200,000                                 | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 0.31 J                                        | 0.94 U                                          |
| Trichlorofluoromethane                | NS                                                     | NS                                      | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Vinyl chloride                        | 900                                                    | 13,000                                  | 1.1 U                                          | 1.1 U                                          | 1.1 U                                         | 1.1 U                                             | 1.1 U                                         | 0.94 U                                          |
| Total Conc                            | NS                                                     | NS                                      | 14.23                                          | 29.86                                          | 1.85                                          | 3.16                                              | 0.31                                          | 11                                              |

**Table 1A**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**

New York, NY

Phase II Investigation Soil Analytical Results  
 Volatile Organic Compounds

| Client ID                             | NYSDEC<br>Part 375<br>Restricted<br>Residential<br>SCO | NYSDEC<br>Part 375<br>Commercial<br>SCO | SB-7 (1-2)-170330<br>460-130646-1<br>3/30/2017 | SB-7 (18.5-19.5)-170330<br>460-130646-2<br>3/30/2017 | SB-8(1-2)-170328<br>460-130460-1<br>3/28/2017 | SB-8A(4.5-5.5)-170328<br>460-130460-2<br>3/28/2017 | SB-9 (2-3)-170330<br>460-130646-5<br>3/30/2017 | SB-10 (2-3)-170330<br>460-130646-4<br>3/30/2017 |
|---------------------------------------|--------------------------------------------------------|-----------------------------------------|------------------------------------------------|------------------------------------------------------|-----------------------------------------------|----------------------------------------------------|------------------------------------------------|-------------------------------------------------|
| Lab Sample ID                         | µg/kg                                                  | µg/kg                                   |                                                |                                                      |                                               |                                                    |                                                |                                                 |
| Date Sampled                          |                                                        |                                         |                                                |                                                      |                                               |                                                    |                                                |                                                 |
| µg/kg                                 |                                                        |                                         |                                                |                                                      |                                               |                                                    |                                                |                                                 |
| 1,1,1-Trichloroethane                 | 100,000                                                | 500,000                                 | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| 1,1,2,2-Tetrachloroethane             | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | NS                                                     | NS                                      | 2.4 B                                          | 2.2 B                                                | 1.1 U                                         | 1.2 U                                              | 3.2 B                                          | 2.5 B                                           |
| 1,1,2-Trichloroethane                 | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| 1,1-Dichloroethane                    | 26,000                                                 | 240,000                                 | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| 1,1-Dichloroethene                    | 100,000                                                | 500,000                                 | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| 1,2,3-Trichlorobenzene                | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| 1,2,4-Trichlorobenzene                | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| 1,2-Dibromo-3-Chloropropane           | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| 1,2-Dichlorobenzene                   | 100,000                                                | 500,000                                 | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| 1,2-Dichloroethane                    | 3,100                                                  | 30,000                                  | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| 1,2-Dichloropropane                   | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| 1,3-Dichlorobenzene                   | 49,000                                                 | 280,000                                 | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| 1,4-Dichlorobenzene                   | 13,000                                                 | 130,000                                 | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| 1,4-Dioxane                           | 13,000                                                 | 130,000                                 | 21 U                                           | 21 U                                                 | 22 U                                          | 23 U                                               | 20 U                                           | 20 U                                            |
| 2-Butanone (MEK)                      | 100,000                                                | 500,000                                 | 5.1 U                                          | 6.3                                                  | 5.6 U                                         | 5.8 U                                              | 5 U                                            | 5.1 U                                           |
| 2-Hexanone                            | NS                                                     | NS                                      | 5.1 U                                          | 5.3 U                                                | 5.6 U                                         | 5.8 U                                              | 5 U                                            | 5.1 U                                           |
| 4-Methyl-2-pentanone (MIBK)           | NS                                                     | NS                                      | 5.1 U                                          | 5.3 U                                                | 5.6 U                                         | 5.8 U                                              | 5 U                                            | 5.1 U                                           |
| Acetone                               | 100,000                                                | 500,000                                 | 1.4 J B                                        | 25 B                                                 | 2.3 J B                                       | 4.1 J B                                            | 1.4 J B                                        | 1.8 J B                                         |
| Benzene                               | 4,800                                                  | 44,000                                  | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Bromoform                             | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Bromomethane                          | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Carbon disulfide                      | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 0.65 J                                             | 1 U                                            | 1 U                                             |
| Carbon tetrachloride                  | 2,400                                                  | 22,000                                  | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Chlorobenzene                         | 100,000                                                | 500,000                                 | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Chlorobromomethane                    | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Chlorodibromomethane                  | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Chloroethane                          | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Chloroform                            | 49,000                                                 | 350,000                                 | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Chloromethane                         | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| cis-1,2-Dichloroethene                | 100,000                                                | 500,000                                 | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| cis-1,3-Dichloropropene               | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Cyclohexane                           | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Dichlorobromomethane                  | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Dichlorodifluoromethane               | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Ethylbenzene                          | 41,000                                                 | 390,000                                 | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Ethylene Dibromide                    | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Isopropylbenzene                      | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Methyl acetate                        | NS                                                     | NS                                      | 5.1 U                                          | 5.3 U                                                | 5.6 U                                         | 5.8 U                                              | 5 U                                            | 5.1 U                                           |
| Methyl tert-butyl ether               | 100,000                                                | 500,000                                 | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Methylcyclohexane                     | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Methylene Chloride                    | 100,000                                                | 500,000                                 | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 0.42 J                                             | 1 U                                            | 0.33 J                                          |
| m-Xylene & p-Xylene                   | 100,000 TS                                             | 500,000 TS                              | 1 U                                            | 1.1 U                                                | 0.13 J                                        | 0.16 J                                             | 1 U                                            | 1 U                                             |
| o-Xylene                              | 100,000 TS                                             | 500,000 TS                              | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Styrene                               | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Tetrachloroethene                     | 19,000                                                 | 150,000                                 | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Toluene                               | 100,000                                                | 500,000                                 | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| trans-1,2-Dichloroethene              | 100,000                                                | 500,000                                 | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| trans-1,3-Dichloropropene             | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Trichloroethene                       | 21,000                                                 | 200,000                                 | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Trichlorofluoromethane                | NS                                                     | NS                                      | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Vinyl chloride                        | 900                                                    | 13,000                                  | 1 U                                            | 1.1 U                                                | 1.1 U                                         | 1.2 U                                              | 1 U                                            | 1 U                                             |
| Total Conc                            | NS                                                     | NS                                      | 3.8                                            | 33.5                                                 | 2.43                                          | 5.33                                               | 4.6                                            | 4.63                                            |

**Table 1B**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**  
 New York, NY  
 Phase II Investigation Soil Analytical Results  
 Semivolatile Organic Compounds

| Client ID                    | NYSDEC<br>Part 375<br>Restricted<br>Residential<br>SCO | NYSDEC<br>Part 375<br>Commercial<br>SCO | SB-1(1-2)-170329<br>460-130545-4<br>3/29/2017 | SB-1(17-18)-170329<br>460-130545-5<br>3/29/2017 | SB-2 (1-2)-170327<br>460-130404-1<br>3/27/2017 | SB-2 (8-9)-170327<br>460-130404-2<br>3/27/2017 |
|------------------------------|--------------------------------------------------------|-----------------------------------------|-----------------------------------------------|-------------------------------------------------|------------------------------------------------|------------------------------------------------|
| Lab Sample ID                |                                                        |                                         |                                               |                                                 |                                                |                                                |
| Date Sampled                 |                                                        |                                         |                                               |                                                 |                                                |                                                |
| µg/kg                        | µg/kg                                                  | µg/kg                                   |                                               |                                                 |                                                |                                                |
| 1,1'-Biphenyl                | NS                                                     | NS                                      | 84 J                                          | 390 U                                           | 390 U                                          | 390 U                                          |
| 1,2,4,5-Tetrachlorobenzene   | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| 2,2'-oxybis[1-chloropropane] | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| 2,3,4,6-Tetrachlorophenol    | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| 2,4,5-Trichlorophenol        | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| 2,4,6-Trichlorophenol        | NS                                                     | NS                                      | 160 U                                         | 160 U                                           | 160 U                                          | 160 U                                          |
| 2,4-Dichlorophenol           | NS                                                     | NS                                      | 160 U                                         | 160 U                                           | 160 U                                          | 160 U                                          |
| 2,4-Dimethylphenol           | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| 2,4-Dinitrophenol            | NS                                                     | NS                                      | 320 U                                         | 320 U                                           | 320 U                                          | 310 U                                          |
| 2,4-Dinitrotoluene           | NS                                                     | NS                                      | 80 U                                          | 80 U                                            | 80 U                                           | 79 U                                           |
| 2,6-Dinitrotoluene           | NS                                                     | NS                                      | 80 U                                          | 80 U                                            | 80 U                                           | 79 U                                           |
| 2-Chloronaphthalene          | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| 2-Chlorophenol               | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| 2-Methylnaphthalene          | NS                                                     | NS                                      | 320 J                                         | 390 U                                           | 390 U                                          | 10 J                                           |
| 2-Methylphenol               | 100,000                                                | 500,000                                 | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| 2-Nitroaniline               | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| 2-Nitrophenol                | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| 3,3'-Dichlorobenzidine       | NS                                                     | NS                                      | 160 U                                         | 160 U                                           | 160 U                                          | 160 U                                          |
| 3-Nitroaniline               | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| 4,6-Dinitro-2-methylphenol   | NS                                                     | NS                                      | 320 U                                         | 320 U                                           | 320 U                                          | 310 U                                          |
| 4-Bromophenyl phenyl ether   | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| 4-Chloro-3-methylphenol      | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| 4-Chloroaniline              | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U*                                         | 390 U                                          |
| 4-Chlorophenyl phenyl ether  | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| 4-Methylphenol               | 100,000                                                | 500,000                                 | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| 4-Nitroaniline               | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| 4-Nitrophenol                | NS                                                     | NS                                      | 800 U                                         | 800 U                                           | 800 U                                          | 790 U                                          |
| Acenaphthene                 | 100,000                                                | 500,000                                 | 530                                           | 390 U                                           | 390 U                                          | 10 J                                           |
| Acenaphthylene               | 100,000                                                | 500,000                                 | 36 J                                          | 390 U                                           | 390 U                                          | 390 U                                          |
| Acetophenone                 | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| Anthracene                   | 100,000                                                | 500,000                                 | 650                                           | 390 U                                           | 390 U                                          | 390 U                                          |
| Atrazine                     | NS                                                     | NS                                      | 160 U                                         | 160 U                                           | 160 U                                          | 160 U                                          |
| Benzaldehyde                 | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| Benzo[a]anthracene           | 1,000                                                  | 5,600                                   | 1,300                                         | 39 U                                            | 130                                            | 110                                            |
| Benzo[a]pyrene               | 1,000                                                  | 1,000                                   | 1,300                                         | 17 J                                            | 120                                            | 100                                            |
| Benzo[b]fluoranthene         | 1,000                                                  | 5,600                                   | 1,600                                         | 24 J                                            | 140                                            | 130                                            |
| Benzo[g,h,i]perylene         | 100,000                                                | 500,000                                 | 1,100                                         | 390 U                                           | 80 J                                           | 56 J                                           |
| Benzo[k]fluoranthene         | 3,900                                                  | 56,000                                  | 560                                           | 39 U                                            | 67                                             | 60                                             |
| Bis(2-chloroethoxy)methane   | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| Bis(2-chloroethyl)ether      | NS                                                     | NS                                      | 39 U                                          | 39 U                                            | 39 U                                           | 39 U                                           |
| Bis(2-ethylhexyl) phthalate  | NS                                                     | NS                                      | 99 J                                          | 390 U                                           | 40 J                                           | 390 U                                          |
| Butyl benzyl phthalate       | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| Caprolactam                  | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| Carbazole                    | NS                                                     | NS                                      | 220 J                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| Chrysene                     | 3,900                                                  | 56,000                                  | 1,500                                         | 21 J                                            | 140 J                                          | 110 J                                          |
| Dibenz(a,h)anthracene        | 330                                                    | 560                                     | 360                                           | 39 U                                            | 22 J                                           | 20 J                                           |
| Dibenzofuran                 | 59,000                                                 | 350,000                                 | 380 J                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| Diethyl phthalate            | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| Dimethyl phthalate           | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| Di-n-butyl phthalate         | NS                                                     | NS                                      | 110 J                                         | 15 J                                            | 390 U                                          | 390 U                                          |
| Di-n-octyl phthalate         | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| Fluoranthene                 | 100,000                                                | 500,000                                 | 2,800                                         | 37 J                                            | 190 J                                          | 180 J                                          |
| Fluorene                     | 100,000                                                | 500,000                                 | 420                                           | 390 U                                           | 390 U                                          | 390 U                                          |
| Hexachlorobenzene            | 1,200                                                  | 6,000                                   | 39 U                                          | 39 U                                            | 39 U                                           | 39 U                                           |
| Hexachlorobutadiene          | NS                                                     | NS                                      | 80 U                                          | 80 U                                            | 80 U                                           | 79 U                                           |
| Hexachlorocyclopentadiene    | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| Hexachloroethane             | NS                                                     | NS                                      | 39 U                                          | 39 U                                            | 39 U                                           | 39 U                                           |
| Indeno[1,2,3-cd]pyrene       | 500                                                    | 5,600                                   | 1,400                                         | 39 U                                            | 74                                             | 52                                             |
| Isophorone                   | NS                                                     | NS                                      | 160 U                                         | 160 U                                           | 170                                            | 65 J                                           |
| Naphthalene                  | 100,000                                                | 500,000                                 | 580                                           | 390 U                                           | 390 U                                          | 38 J                                           |
| Nitrobenzene                 | NS                                                     | NS                                      | 39 U                                          | 39 U                                            | 39 U                                           | 39 U                                           |
| N-Nitrosodi-n-propylamine    | NS                                                     | NS                                      | 39 U                                          | 39 U                                            | 39 U                                           | 39 U                                           |
| N-Nitrosodiphenylamine       | NS                                                     | NS                                      | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| Pentachlorophenol            | 6,700                                                  | 6,700                                   | 320 U                                         | 320 U                                           | 320 U                                          | 310 U                                          |
| Phenanthrene                 | 100,000                                                | 500,000                                 | 3,300                                         | 37 J                                            | 91 J                                           | 110 J                                          |
| Phenol                       | 100,000                                                | 500,000                                 | 390 U                                         | 390 U                                           | 390 U                                          | 390 U                                          |
| Pyrene                       | 100,000                                                | 500,000                                 | 2,600                                         | 36 J                                            | 230 J                                          | 160 J                                          |
| Total Conc                   | NS                                                     | NS                                      | 21,249                                        | 187                                             | 1,494                                          | 1,211                                          |

**Table 1B**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**  
 New York, NY  
 Phase II Investigation Soil Analytical Results  
 Semivolatile Organic Compounds

| Client ID                    | NYSDEC<br>Part 375<br>Restricted<br>Residential<br>SCO | NYSDEC<br>Part 375<br>Commercial<br>SCO | SB-3 (1-2)-170327<br>460-130404-7<br>3/27/2017 | SB-3 (5-6)-170327<br>460-130404-8<br>3/27/2017 | SB-4 (5-6)-170327<br>460-130404-4<br>3/27/2017 | SB-4 (6-7)-170327<br>460-130404-5<br>3/27/2017 |
|------------------------------|--------------------------------------------------------|-----------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|
| Lab Sample ID                |                                                        |                                         |                                                |                                                |                                                |                                                |
| Date Sampled                 |                                                        |                                         |                                                |                                                |                                                |                                                |
| µg/kg                        | µg/kg                                                  | µg/kg                                   |                                                |                                                |                                                |                                                |
| 1,1'-Biphenyl                | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 1,2,4,5-Tetrachlorobenzene   | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 2,2'-oxybis[1-chloropropane] | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 2,3,4,6-Tetrachlorophenol    | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 2,4,5-Trichlorophenol        | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 2,4,6-Trichlorophenol        | NS                                                     | NS                                      | 150 U                                          | 160 U                                          | 170 U                                          | 170 U                                          |
| 2,4-Dichlorophenol           | NS                                                     | NS                                      | 150 U                                          | 160 U                                          | 170 U                                          | 170 U                                          |
| 2,4-Dimethylphenol           | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 2,4-Dinitrophenol            | NS                                                     | NS                                      | 300 U                                          | 320 U                                          | 330 U                                          | 340 U                                          |
| 2,4-Dinitrotoluene           | NS                                                     | NS                                      | 75 U                                           | 81 U                                           | 84 U                                           | 86 U                                           |
| 2,6-Dinitrotoluene           | NS                                                     | NS                                      | 75 U                                           | 81 U                                           | 84 U                                           | 86 U                                           |
| 2-Chloronaphthalene          | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 2-Chlorophenol               | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 2-Methylnaphthalene          | NS                                                     | NS                                      | 13 J                                           | 400 U                                          | 9.6 J                                          | 13 J                                           |
| 2-Methylphenol               | 100,000                                                | 500,000                                 | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 2-Nitroaniline               | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 2-Nitrophenol                | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 3,3'-Dichlorobenzidine       | NS                                                     | NS                                      | 150 U                                          | 160 U                                          | 170 U                                          | 170 U                                          |
| 3-Nitroaniline               | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 4,6-Dinitro-2-methylphenol   | NS                                                     | NS                                      | 300 U                                          | 320 U                                          | 330 U                                          | 340 U                                          |
| 4-Bromophenyl phenyl ether   | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 4-Chloro-3-methylphenol      | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 4-Chloroaniline              | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 4-Chlorophenyl phenyl ether  | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 4-Methylphenol               | 100,000                                                | 500,000                                 | 370 U                                          | 400 U                                          | 410 U                                          | 18 J                                           |
| 4-Nitroaniline               | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| 4-Nitrophenol                | NS                                                     | NS                                      | 750 U                                          | 810 U                                          | 840 U                                          | 860 U                                          |
| Acenaphthene                 | 100,000                                                | 500,000                                 | 70 J                                           | 400 U                                          | 41 J                                           | 24 J                                           |
| Acenaphthylene               | 100,000                                                | 500,000                                 | 24 J                                           | 400 U                                          | 410 U                                          | 13 J                                           |
| Acetophenone                 | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| Anthracene                   | 100,000                                                | 500,000                                 | 190 J                                          | 400 U                                          | 100 J                                          | 51 J                                           |
| Atrazine                     | NS                                                     | NS                                      | 150 U                                          | 160 U                                          | 170 U                                          | 170 U                                          |
| Benzaldehyde                 | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| Benzo[a]anthracene           | 1,000                                                  | 5,600                                   | 560                                            | 73                                             | 310                                            | 160                                            |
| Benzo[a]pyrene               | 1,000                                                  | 1,000                                   | 480                                            | 64                                             | 260                                            | 130                                            |
| Benzo[b]fluoranthene         | 1,000                                                  | 5,600                                   | 660                                            | 79                                             | 340                                            | 200                                            |
| Benzo[g,h,i]perylene         | 100,000                                                | 500,000                                 | 240 J                                          | 40 J                                           | 210 J                                          | 55 J                                           |
| Benzo[k]fluoranthene         | 3,900                                                  | 56,000                                  | 230                                            | 38 J                                           | 150                                            | 75                                             |
| Bis(2-chloroethoxy)methane   | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| Bis(2-chloroethyl)ether      | NS                                                     | NS                                      | 37 U                                           | 40 U                                           | 41 U                                           | 42 U                                           |
| Bis(2-ethylhexyl) phthalate  | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| Butyl benzyl phthalate       | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| Caprolactam                  | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| Carbazole                    | NS                                                     | NS                                      | 55 J                                           | 11 J                                           | 57 J                                           | 34 J                                           |
| Chrysene                     | 3,900                                                  | 56,000                                  | 560                                            | 76 J                                           | 310 J                                          | 170 J                                          |
| Dibenz(a,h)anthracene        | 330                                                    | 560                                     | 59                                             | 40 U                                           | 56                                             | 42 U                                           |
| Dibenzofuran                 | 59,000                                                 | 350,000                                 | 44 J                                           | 400 U                                          | 33 J                                           | 22 J                                           |
| Diethyl phthalate            | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| Dimethyl phthalate           | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| Di-n-butyl phthalate         | NS                                                     | NS                                      | 37 J                                           | 400 U                                          | 410 U                                          | 420 U                                          |
| Di-n-octyl phthalate         | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| Fluoranthene                 | 100,000                                                | 500,000                                 | 1,200                                          | 130 J                                          | 730                                            | 390 J                                          |
| Fluorene                     | 100,000                                                | 500,000                                 | 62 J                                           | 9.1 J                                          | 40 J                                           | 24 J                                           |
| Hexachlorobenzene            | 1,200                                                  | 6,000                                   | 37 U                                           | 40 U                                           | 41 U                                           | 42 U                                           |
| Hexachlorobutadiene          | NS                                                     | NS                                      | 75 U                                           | 81 U                                           | 84 U                                           | 86 U                                           |
| Hexachlorocyclopentadiene    | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| Hexachloroethane             | NS                                                     | NS                                      | 37 U                                           | 40 U                                           | 41 U                                           | 42 U                                           |
| Indeno[1,2,3-cd]pyrene       | 500                                                    | 5,600                                   | 240                                            | 42                                             | 220                                            | 65                                             |
| Isophorone                   | NS                                                     | NS                                      | 150 U                                          | 160 U                                          | 84 J                                           | 170 U                                          |
| Naphthalene                  | 100,000                                                | 500,000                                 | 31 J                                           | 13 J                                           | 22 J                                           | 31 J                                           |
| Nitrobenzene                 | NS                                                     | NS                                      | 37 U *                                         | 40 U                                           | 41 U                                           | 42 U                                           |
| N-Nitrosodi-n-propylamine    | NS                                                     | NS                                      | 37 U                                           | 40 U                                           | 41 U                                           | 42 U                                           |
| N-Nitrosodiphenylamine       | NS                                                     | NS                                      | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| Pentachlorophenol            | 6,700                                                  | 6,700                                   | 300 U                                          | 320 U                                          | 330 U                                          | 340 U                                          |
| Phenanthrene                 | 100,000                                                | 500,000                                 | 810                                            | 95 J                                           | 550                                            | 220 J                                          |
| Phenol                       | 100,000                                                | 500,000                                 | 370 U                                          | 400 U                                          | 410 U                                          | 420 U                                          |
| Pyrene                       | 100,000                                                | 500,000                                 | 850                                            | 120 J                                          | 600                                            | 180 J                                          |
| Total Conc                   | NS                                                     | NS                                      | 6,415                                          | 790.1                                          | 4,122.60                                       | 1,875                                          |

**Table 1B**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**  
 New York, NY  
 Phase II Investigation Soil Analytical Results  
 Semivolatile Organic Compounds

| Client ID                    | NYSDEC<br>Part 375<br>Restricted<br>Residential<br>SCO<br>µg/kg | NYSDEC<br>Part 375<br>Commercial<br>SCO<br>µg/kg | SB-5(1-2)-170328<br>460-130460-3<br>3/28/2017 | SB-5(4.5-5.5)-170328<br>460-130460-4<br>3/28/2017 | SB-6(0-1)-170329<br>460-130545-1<br>3/29/2017 | SB-6(18-19)-170329<br>460-130545-2<br>3/29/2017 |
|------------------------------|-----------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------|---------------------------------------------------|-----------------------------------------------|-------------------------------------------------|
| 1,1'-Biphenyl                | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 1,2,4,5-Tetrachlorobenzene   | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 2,2'-oxybis[1-chloropropane] | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 2,3,4,6-Tetrachlorophenol    | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 2,4,5-Trichlorophenol        | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 2,4,6-Trichlorophenol        | NS                                                              | NS                                               | 140 U                                         | 140 U                                             | 160 U                                         | 150 U                                           |
| 2,4-Dichlorophenol           | NS                                                              | NS                                               | 140 U                                         | 140 U                                             | 160 U                                         | 150 U                                           |
| 2,4-Dimethylphenol           | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 2,4-Dinitrophenol            | NS                                                              | NS                                               | 280 U                                         | 290 U                                             | 320 U                                         | 310 U                                           |
| 2,4-Dinitrotoluene           | NS                                                              | NS                                               | 71 U                                          | 72 U                                              | 80 U                                          | 77 U                                            |
| 2,6-Dinitrotoluene           | NS                                                              | NS                                               | 71 U                                          | 72 U                                              | 80 U                                          | 77 U                                            |
| 2-Chloronaphthalene          | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 2-Chlorophenol               | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 2-Methylnaphthalene          | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 12 J                                          | 380 U                                           |
| 2-Methylphenol               | 100,000                                                         | 500,000                                          | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 2-Nitroaniline               | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 2-Nitrophenol                | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 3,3'-Dichlorobenzidine       | NS                                                              | NS                                               | 140 U                                         | 140 U                                             | 160 U                                         | 150 U                                           |
| 3-Nitroaniline               | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 4,6-Dinitro-2-methylphenol   | NS                                                              | NS                                               | 280 U                                         | 290 U                                             | 320 U                                         | 310 U                                           |
| 4-Bromophenyl phenyl ether   | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 4-Chloro-3-methylphenol      | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 4-Chloroaniline              | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 4-Chlorophenyl phenyl ether  | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 4-Methylphenol               | 100,000                                                         | 500,000                                          | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 4-Nitroaniline               | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| 4-Nitrophenol                | NS                                                              | NS                                               | 710 U                                         | 720 U                                             | 800 U                                         | 770 U                                           |
| Acenaphthene                 | 100,000                                                         | 500,000                                          | 350 U                                         | 360 U                                             | 17 J                                          | 380 U                                           |
| Acenaphthylene               | 100,000                                                         | 500,000                                          | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| Acetophenone                 | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| Anthracene                   | 100,000                                                         | 500,000                                          | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| Atrazine                     | NS                                                              | NS                                               | 140 U                                         | 140 U                                             | 160 U                                         | 150 U                                           |
| Benzaldehyde                 | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| Benzo[a]anthracene           | 1,000                                                           | 5,600                                            | 35 U                                          | 36 U                                              | 180                                           | 38 U                                            |
| Benzo[a]pyrene               | 1,000                                                           | 1,000                                            | 35 U                                          | 36 U                                              | 160                                           | 38 U                                            |
| Benzo[b]fluoranthene         | 1,000                                                           | 5,600                                            | 35 U                                          | 36 U                                              | 240                                           | 38 U                                            |
| Benzo[g,h,i]perylene         | 100,000                                                         | 500,000                                          | 350 U                                         | 360 U                                             | 150 J                                         | 380 U                                           |
| Benzo[k]fluoranthene         | 3,900                                                           | 56,000                                           | 35 U                                          | 36 U                                              | 100                                           | 38 U                                            |
| Bis(2-chloroethoxy)methane   | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| Bis(2-chloroethyl)ether      | NS                                                              | NS                                               | 35 U                                          | 36 U                                              | 39 U                                          | 38 U                                            |
| Bis(2-ethylhexyl) phthalate  | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| Butyl benzyl phthalate       | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| Caprolactam                  | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| Carbazole                    | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 15 J                                          | 380 U                                           |
| Chrysene                     | 3,900                                                           | 56,000                                           | 350 U                                         | 360 U                                             | 230 J                                         | 380 U                                           |
| Dibenz(a,h)anthracene        | 330                                                             | 560                                              | 35 U                                          | 36 U                                              | 39 U                                          | 38 U                                            |
| Dibenzofuran                 | 59,000                                                          | 350,000                                          | 350 U                                         | 360 U                                             | 12 J                                          | 380 U                                           |
| Diethyl phthalate            | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| Dimethyl phthalate           | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| Di-n-butyl phthalate         | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 29 J                                          | 380 U                                           |
| Di-n-octyl phthalate         | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| Fluoranthene                 | 100,000                                                         | 500,000                                          | 350 U                                         | 360 U                                             | 360 J                                         | 380 U                                           |
| Fluorene                     | 100,000                                                         | 500,000                                          | 350 U                                         | 360 U                                             | 11 J                                          | 380 U                                           |
| Hexachlorobenzene            | 1,200                                                           | 6,000                                            | 35 U                                          | 36 U                                              | 39 U                                          | 38 U                                            |
| Hexachlorobutadiene          | NS                                                              | NS                                               | 71 U                                          | 72 U                                              | 80 U                                          | 77 U                                            |
| Hexachlorocyclopentadiene    | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| Hexachloroethane             | NS                                                              | NS                                               | 35 U                                          | 36 U                                              | 39 U                                          | 38 U                                            |
| Indeno[1,2,3-cd]pyrene       | 500                                                             | 5,600                                            | 35 U                                          | 36 U                                              | 220                                           | 38 U                                            |
| Isophorone                   | NS                                                              | NS                                               | 140 U                                         | 140 U                                             | 44 J                                          | 150 U                                           |
| Naphthalene                  | 100,000                                                         | 500,000                                          | 350 U                                         | 360 U                                             | 27 J                                          | 380 U                                           |
| Nitrobenzene                 | NS                                                              | NS                                               | 35 U                                          | 36 U                                              | 39 U                                          | 38 U                                            |
| N-Nitrosodi-n-propylamine    | NS                                                              | NS                                               | 35 U                                          | 36 U                                              | 39 U                                          | 38 U                                            |
| N-Nitrosodiphenylamine       | NS                                                              | NS                                               | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| Pentachlorophenol            | 6,700                                                           | 6,700                                            | 280 U                                         | 290 U                                             | 320 U                                         | 310 U                                           |
| Phenanthrene                 | 100,000                                                         | 500,000                                          | 350 U                                         | 360 U                                             | 230 J                                         | 380 U                                           |
| Phenol                       | 100,000                                                         | 500,000                                          | 350 U                                         | 360 U                                             | 390 U                                         | 380 U                                           |
| Pyrene                       | 100,000                                                         | 500,000                                          | 350 U                                         | 360 U                                             | 330 J                                         | 380 U                                           |
| Total Conc                   | NS                                                              | NS                                               | 0                                             | 0                                                 | 2,367                                         | 0                                               |

**Table 1B**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**  
 New York, NY  
 Phase II Investigation Soil Analytical Results  
 Semivolatile Organic Compounds

| Client ID                    | NYSDEC<br>Part 375<br>Restricted<br>Residential<br>SCO | NYSDEC<br>Part 375<br>Commercial<br>SCO | SB-7 (1-2)-170330<br>460-130646-1<br>3/30/2017 | SB-7 (18.5-19.5)-170330<br>460-130646-2<br>3/30/2017 | SB-8(1-2)-170328<br>460-130460-1<br>3/28/2017 | SB-8A(4.5-5.5)-170328<br>460-130460-2<br>3/28/2017 | SB-9 (2-3)-170330<br>460-130646-5<br>3/30/2017 | SB-10 (2-3)-170330<br>460-130646-4<br>3/30/2017 |
|------------------------------|--------------------------------------------------------|-----------------------------------------|------------------------------------------------|------------------------------------------------------|-----------------------------------------------|----------------------------------------------------|------------------------------------------------|-------------------------------------------------|
| Lab Sample ID                |                                                        |                                         |                                                |                                                      |                                               |                                                    |                                                |                                                 |
| Date Sampled                 |                                                        |                                         |                                                |                                                      |                                               |                                                    |                                                |                                                 |
| µg/kg                        | µg/kg                                                  | µg/kg                                   |                                                |                                                      |                                               |                                                    |                                                |                                                 |
| 1,1'-Biphenyl                | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 1,2,4,5-Tetrachlorobenzene   | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 2,2'-oxybis[1-chloropropane] | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 2,3,4,6-Tetrachlorophenol    | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 2,4,5-Trichlorophenol        | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 2,4,6-Trichlorophenol        | NS                                                     | NS                                      | 150 U                                          | 160 U                                                | 140 U                                         | 140 U                                              | 160 U                                          | 160 U                                           |
| 2,4-Dichlorophenol           | NS                                                     | NS                                      | 150 U                                          | 160 U                                                | 140 U                                         | 140 U                                              | 160 U                                          | 160 U                                           |
| 2,4-Dimethylphenol           | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 2,4-Dinitrophenol            | NS                                                     | NS                                      | 300 U                                          | 320 U                                                | 270 U                                         | 290 U                                              | 310 U                                          | 310 U                                           |
| 2,4-Dinitrotoluene           | NS                                                     | NS                                      | 77 U                                           | 81 U                                                 | 68 U                                          | 72 U                                               | 79 U                                           | 79 U                                            |
| 2,6-Dinitrotoluene           | NS                                                     | NS                                      | 77 U                                           | 81 U                                                 | 68 U                                          | 72 U                                               | 79 U                                           | 79 U                                            |
| 2-Chloronaphthalene          | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 2-Chlorophenol               | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 2-Methylnaphthalene          | NS                                                     | NS                                      | 380 U                                          | 9.5 J                                                | 340 U                                         | 360 U                                              | 15 J                                           | 11 J                                            |
| 2-Methylphenol               | 100,000                                                | 500,000                                 | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 2-Nitroaniline               | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 2-Nitrophenol                | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 3,3'-Dichlorobenzidine       | NS                                                     | NS                                      | 150 U                                          | 160 U                                                | 140 U                                         | 140 U                                              | 160 U                                          | 160 U                                           |
| 3-Nitroaniline               | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 4,6-Dinitro-2-methylphenol   | NS                                                     | NS                                      | 300 U                                          | 320 U                                                | 270 U                                         | 290 U                                              | 310 U                                          | 310 U                                           |
| 4-Bromophenyl phenyl ether   | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 4-Chloro-3-methylphenol      | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 4-Chloroaniline              | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 4-Chlorophenyl phenyl ether  | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 4-Methylphenol               | 100,000                                                | 500,000                                 | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 4-Nitroaniline               | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| 4-Nitrophenol                | NS                                                     | NS                                      | 770 U                                          | 810 U                                                | 680 U                                         | 720 U                                              | 790 U                                          | 790 U                                           |
| Acenaphthene                 | 100,000                                                | 500,000                                 | 18 J                                           | 400 U                                                | 340 U                                         | 360 U                                              | 39 J                                           | 390 U                                           |
| Acenaphthylene               | 100,000                                                | 500,000                                 | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 11 J                                           | 390 U                                           |
| Acetophenone                 | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| Anthracene                   | 100,000                                                | 500,000                                 | 36 J                                           | 400 U                                                | 340 U                                         | 360 U                                              | 100 J                                          | 390 U                                           |
| Atrazine                     | NS                                                     | NS                                      | 150 U                                          | 160 U                                                | 140 U                                         | 140 U                                              | 160 U                                          | 160 U                                           |
| Benzaldehyde                 | NS                                                     | NS                                      | 380 U                                          | 47 J                                                 | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| Benzo[a]anthracene           | 1,000                                                  | 5,600                                   | 230                                            | 84                                                   | 34 U                                          | 47                                                 | 450                                            | 180                                             |
| Benzo[a]pyrene               | 1,000                                                  | 1,000                                   | 210                                            | 68                                                   | 34 U                                          | 36 U                                               | 420                                            | 170                                             |
| Benzo[b]fluoranthene         | 1,000                                                  | 5,600                                   | 320                                            | 100                                                  | 34 U                                          | 52                                                 | 540                                            | 250                                             |
| Benzo[g,h,i]perylene         | 100,000                                                | 500,000                                 | 100 J                                          | 46 J                                                 | 340 U                                         | 360 U                                              | 360 J                                          | 85 J                                            |
| Benzo[k]fluoranthene         | 3,900                                                  | 56,000                                  | 100                                            | 52                                                   | 34 U                                          | 36 U                                               | 240                                            | 72                                              |
| Bis(2-chloroethoxy)methane   | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| Bis(2-chloroethyl)ether      | NS                                                     | NS                                      | 38 U                                           | 40 U                                                 | 34 U                                          | 36 U                                               | 39 U                                           | 39 U                                            |
| Bis(2-ethylhexyl) phthalate  | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 95 J                                           | 160 J                                           |
| Butyl benzyl phthalate       | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| Caprolactam                  | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| Carbazole                    | NS                                                     | NS                                      | 17 J                                           | 12 J                                                 | 340 U                                         | 360 U                                              | 31 J                                           | 390 U                                           |
| Chrysene                     | 3,900                                                  | 56,000                                  | 270 J                                          | 110 J                                                | 340 U                                         | 62 J                                               | 520                                            | 200 J                                           |
| Dibenz(a,h)anthracene        | 330                                                    | 560                                     | 38 U                                           | 40 U                                                 | 34 U                                          | 36 U                                               | 76                                             | 27 J                                            |
| Dibenzofuran                 | 59,000                                                 | 350,000                                 | 12 J                                           | 14 J                                                 | 340 U                                         | 360 U                                              | 28 J                                           | 15 J                                            |
| Diethyl phthalate            | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| Dimethyl phthalate           | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| Di-n-butyl phthalate         | NS                                                     | NS                                      | 57 J                                           | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 60 J                                            |
| Di-n-octyl phthalate         | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| Fluoranthene                 | 100,000                                                | 500,000                                 | 480                                            | 180 J                                                | 340 U                                         | 69 J                                               | 910                                            | 320 J                                           |
| Fluorene                     | 100,000                                                | 500,000                                 | 13 J                                           | 400 U                                                | 340 U                                         | 360 U                                              | 33 J                                           | 390 U                                           |
| Hexachlorobenzene            | 1,200                                                  | 6,000                                   | 38 U                                           | 40 U                                                 | 34 U                                          | 36 U                                               | 39 U                                           | 39 U                                            |
| Hexachlorobutadiene          | NS                                                     | NS                                      | 77 U                                           | 81 U                                                 | 68 U                                          | 72 U                                               | 79 U                                           | 79 U                                            |
| Hexachlorocyclopentadiene    | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| Hexachloroethane             | NS                                                     | NS                                      | 38 U                                           | 40 U                                                 | 34 U                                          | 36 U                                               | 39 U                                           | 39 U                                            |
| Indeno[1,2,3-cd]pyrene       | 500                                                    | 5,600                                   | 120                                            | 45                                                   | 34 U                                          | 36 U                                               | 320                                            | 97                                              |
| Isophorone                   | NS                                                     | NS                                      | 150 U *                                        | 160 U *                                              | 140 U                                         | 71 J                                               | 160 U *                                        | 160 U *                                         |
| Naphthalene                  | 100,000                                                | 500,000                                 | 380 U                                          | 21 J                                                 | 340 U                                         | 360 U                                              | 32 J                                           | 42 J                                            |
| Nitrobenzene                 | NS                                                     | NS                                      | 38 U                                           | 40 U                                                 | 34 U                                          | 36 U                                               | 39 U                                           | 39 U                                            |
| N-Nitrosodi-n-propylamine    | NS                                                     | NS                                      | 38 U *                                         | 40 U *                                               | 34 U                                          | 36 U                                               | 39 U *                                         | 39 U *                                          |
| N-Nitrosodiphenylamine       | NS                                                     | NS                                      | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| Pentachlorophenol            | 6,700                                                  | 6,700                                   | 300 U                                          | 320 U                                                | 270 U                                         | 290 U                                              | 310 U                                          | 310 U                                           |
| Phenanthrene                 | 100,000                                                | 500,000                                 | 250 J                                          | 100 J                                                | 340 U                                         | 29 J                                               | 550                                            | 160 J                                           |
| Phenol                       | 100,000                                                | 500,000                                 | 380 U                                          | 400 U                                                | 340 U                                         | 360 U                                              | 390 U                                          | 390 U                                           |
| Pyrene                       | 100,000                                                | 500,000                                 | 490                                            | 170 J                                                | 340 U                                         | 71 J                                               | 980                                            | 340 J                                           |
| Total Conc                   | NS                                                     | NS                                      | 2,723                                          | 1,058.50                                             | 0                                             | 401                                                | 5,750                                          | 2,189                                           |

**Table 1C**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**

New York, NY

Phase II Investigation Soil Analytical Results

*Metals*

| Client ID     | NYSDEC<br>Part 375<br>Restricted<br>Residential<br>SCO | NYSDEC<br>Part 375<br>Commercial<br>SCO | SB-1(1-2)-170329<br>460-130545-4<br>3/29/2017<br>1/4 † | SB-1(17-18)-170329<br>460-130545-5<br>3/29/2017<br>1/4 † | SB-2 (1-2)-170327<br>460-130404-1<br>3/27/2017<br>1/4 † | SB-2 (8-9)-170327<br>460-130404-2<br>3/27/2017<br>1/4 † | SB-3 (1-2)-170327<br>460-130404-7<br>3/27/2017<br>1/4 † | SB-3 (5-6)-170327<br>460-130404-8<br>3/27/2017<br>1/4 † |
|---------------|--------------------------------------------------------|-----------------------------------------|--------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|
| Lab Sample ID |                                                        |                                         |                                                        |                                                          |                                                         |                                                         |                                                         |                                                         |
| Date Sampled  |                                                        |                                         |                                                        |                                                          |                                                         |                                                         |                                                         |                                                         |
| Dilution      |                                                        |                                         |                                                        |                                                          |                                                         |                                                         |                                                         |                                                         |
| mg/kg         | mg/kg                                                  | mg/kg                                   |                                                        |                                                          |                                                         |                                                         |                                                         |                                                         |
| Aluminum      | NS                                                     | NS                                      | 11,900                                                 | 9,580                                                    | 10,800                                                  | 14,000                                                  | 13,200                                                  | 10,400                                                  |
| Antimony      | NS                                                     | NS                                      | 3.9 U                                                  | 3.8 U                                                    | 4.8 U                                                   | 4.6 U                                                   | 4.5 U                                                   | 4.7 U                                                   |
| Arsenic       | 16                                                     | 16                                      | 4                                                      | 2.9 U                                                    | 2.7 J                                                   | 1.1 J                                                   | 3.6                                                     | 1.6 J                                                   |
| Barium        | 400                                                    | 400                                     | 103                                                    | 77.3                                                     | 94.6                                                    | 140                                                     | 134                                                     | 75.5                                                    |
| Beryllium     | 72                                                     | 590                                     | 0.73                                                   | 1.2                                                      | 0.45 J                                                  | 0.46 U                                                  | 0.38 J                                                  | 0.47 U                                                  |
| Cadmium       | 4.3                                                    | 9.3                                     | 0.78 U                                                 | 0.77 U                                                   | 0.95 U                                                  | 0.91 U                                                  | 0.89 U                                                  | 0.95 U                                                  |
| Calcium       | NS                                                     | NS                                      | 1,610                                                  | 2,830                                                    | 5,460                                                   | 3,850                                                   | 6,880                                                   | 4,240                                                   |
| Chromium      | 180***                                                 | 1,500***                                | 24.9                                                   | 25.1                                                     | 24.8                                                    | 30                                                      | 28.1                                                    | 18.2                                                    |
| Cobalt        | NS                                                     | NS                                      | 9.9                                                    | 15.5                                                     | 8.5 J                                                   | 14.5                                                    | 12.2                                                    | 6.5 J                                                   |
| Copper        | 270                                                    | 270                                     | 29.2                                                   | 33.9                                                     | 34                                                      | 46.4                                                    | 41.2                                                    | 19.8                                                    |
| Iron          | NS                                                     | NS                                      | 23,200                                                 | 34,700                                                   | 20,900                                                  | 25,600                                                  | 27,200                                                  | 14,700                                                  |
| Lead          | 400                                                    | 1,000                                   | 91.5                                                   | 15.6                                                     | 45                                                      | 31.7                                                    | 109                                                     | 76.3                                                    |
| Magnesium     | NS                                                     | NS                                      | 5,250                                                  | 3,600                                                    | 4,000                                                   | 7,780                                                   | 6,060                                                   | 2,790                                                   |
| Manganese     | 2,000                                                  | 10,000                                  | 384                                                    | 872                                                      | 403                                                     | 761                                                     | 324                                                     | 250                                                     |
| Mercury       | 0.81                                                   | 2.8                                     | 0.4                                                    | 0.05                                                     | 0.057                                                   | 0.44                                                    | 0.47                                                    | 0.19                                                    |
| Nickel        | 310                                                    | 310                                     | 25.4                                                   | 25.1                                                     | 17.8                                                    | 31.3                                                    | 26.2                                                    | 12.9                                                    |
| Potassium     | NS                                                     | NS                                      | 5,210                                                  | 3,650                                                    | 2,150                                                   | 6,730                                                   | 4,690                                                   | 1,640                                                   |
| Selenium      | 180                                                    | 1,500                                   | 3.9 U                                                  | 1.9 J                                                    | 4.8 U                                                   | 4.6 U                                                   | 4.5 U                                                   | 4.7 U                                                   |
| Silver        | 180                                                    | 1,500                                   | 2 U                                                    | 0.36 J                                                   | 2.4 U                                                   | 2.3 U                                                   | 2.2 U                                                   | 2.4 U                                                   |
| Sodium        | NS                                                     | NS                                      | 105 J                                                  | 120 J                                                    | 109 J                                                   | 204 J                                                   | 179 J                                                   | 153 J                                                   |
| Thallium      | NS                                                     | NS                                      | 3.9 U                                                  | 3.8 U                                                    | 4.8 U N                                                 | 4.6 U N                                                 | 4.5 U N                                                 | 4.7 U N                                                 |
| Vanadium      | NS                                                     | NS                                      | 39.9                                                   | 40.8                                                     | 27.1                                                    | 35.1                                                    | 38.5                                                    | 21.2                                                    |
| Zinc          | 10,000                                                 | 10,000                                  | 91.4                                                   | 72.7                                                     | 66.4                                                    | 79.7                                                    | 108                                                     | 58                                                      |

† Dilution factor varies

**Table 1C**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**

New York, NY

Phase II Investigation Soil Analytical Results

*Metals*

| Client ID     | NYSDEC<br>Part 375<br>Restricted<br>Residential<br>SCO | NYSDEC<br>Part 375<br>Commercial<br>SCO | SB-4 (5-6)-170327<br>460-130404-4<br>3/27/2017<br>1/4 † | SB-4 (6-7)-170327<br>460-130404-5<br>3/27/2017<br>1/4 † | SB-5(1-2)-170328<br>460-130460-3<br>3/28/2017<br>4 | SB-5(4.5-5.5)-170328<br>460-130460-4<br>3/28/2017<br>1/4 † | SB-6(0-1)-170329<br>460-130545-1<br>3/29/2017<br>1/4 † | SB-6(18-19)-170329<br>460-130545-2<br>3/29/2017<br>1/4 † |
|---------------|--------------------------------------------------------|-----------------------------------------|---------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------|
| Lab Sample ID | mg/kg                                                  | mg/kg                                   |                                                         |                                                         |                                                    |                                                            |                                                        |                                                          |
| Date Sampled  |                                                        |                                         |                                                         |                                                         |                                                    |                                                            |                                                        |                                                          |
| Dilution      |                                                        |                                         |                                                         |                                                         |                                                    |                                                            |                                                        |                                                          |
| mg/kg         |                                                        |                                         |                                                         |                                                         |                                                    |                                                            |                                                        |                                                          |
| Aluminum      | NS                                                     | NS                                      | 8,880                                                   | 13,500                                                  | 12,400                                             | 13,300                                                     | 12,400                                                 | 8,560                                                    |
| Antimony      | NS                                                     | NS                                      | 4.9 U                                                   | 5.1 U                                                   | 3.3 U                                              | 3.5 U                                                      | 3.7 U                                                  | 3.7 U                                                    |
| Arsenic       | 16                                                     | 16                                      | 1.4 J                                                   | 2.5 J                                                   | 2.5 U                                              | 2.6 U                                                      | 15.6                                                   | 4.6                                                      |
| Barium        | 400                                                    | 400                                     | 80.2                                                    | 153                                                     | 90.4                                               | 104                                                        | 93                                                     | 54.6                                                     |
| Beryllium     | 72                                                     | 590                                     | 0.49 U                                                  | 0.44 J                                                  | 0.64                                               | 0.68                                                       | 0.65                                                   | 0.56                                                     |
| Cadmium       | 4.3                                                    | 9.3                                     | 0.99 U                                                  | 1 U                                                     | 0.67 U                                             | 0.7 U                                                      | 0.73 U                                                 | 0.74 U                                                   |
| Calcium       | NS                                                     | NS                                      | 9,090                                                   | 2,880                                                   | 1,250                                              | 1,410                                                      | 1,930                                                  | 1,550                                                    |
| Chromium      | 180***                                                 | 1,500***                                | 21.7                                                    | 24.3                                                    | 19.6                                               | 23.6                                                       | 20.9                                                   | 24.2                                                     |
| Cobalt        | NS                                                     | NS                                      | 7.6 J                                                   | 8.5 J                                                   | 12.8                                               | 13.6                                                       | 7 J                                                    | 11.5                                                     |
| Copper        | 270                                                    | 270                                     | 29.3                                                    | 19.1                                                    | 54.5                                               | 43.9                                                       | 54.1                                                   | 21.7                                                     |
| Iron          | NS                                                     | NS                                      | 15,800                                                  | 19,500                                                  | 19,800                                             | 22,100                                                     | 17,800                                                 | 13,200                                                   |
| Lead          | 400                                                    | 1,000                                   | 34                                                      | 51                                                      | 6                                                  | 6.3                                                        | 129                                                    | 8.5                                                      |
| Magnesium     | NS                                                     | NS                                      | 4,700                                                   | 3,070                                                   | 5,940                                              | 6,570                                                      | 2,800                                                  | 2,750                                                    |
| Manganese     | 2,000                                                  | 10,000                                  | 261                                                     | 409                                                     | 248                                                | 270                                                        | 266                                                    | 180                                                      |
| Mercury       | 0.81                                                   | 2.8                                     | 0.3                                                     | 0.12                                                    | 0.017 J                                            | 0.016 J                                                    | 0.31                                                   | 0.019 U                                                  |
| Nickel        | 310                                                    | 310                                     | 17.2                                                    | 16.6                                                    | 24.1                                               | 26.9                                                       | 15                                                     | 15.8                                                     |
| Potassium     | NS                                                     | NS                                      | 2,830                                                   | 1,920                                                   | 5,370                                              | 6,230                                                      | 1,430                                                  | 1,400                                                    |
| Selenium      | 180                                                    | 1,500                                   | 4.9 U                                                   | 5.1 U                                                   | 3.3 U                                              | 3.5 U                                                      | 3.7 U                                                  | 3.7 U                                                    |
| Silver        | 180                                                    | 1,500                                   | 2.5 U                                                   | 2.6 U                                                   | 1.7 U                                              | 1.8 U                                                      | 1.8 U                                                  | 1.9 U                                                    |
| Sodium        | NS                                                     | NS                                      | 162 J                                                   | 124 J                                                   | 105 J                                              | 136 J                                                      | 69.9 J                                                 | 65.9 J                                                   |
| Thallium      | NS                                                     | NS                                      | 4.9 U N                                                 | 5.1 U N                                                 | 3.3 U                                              | 3.5 U                                                      | 3.7 U                                                  | 3.7 U                                                    |
| Vanadium      | NS                                                     | NS                                      | 23.9                                                    | 25.2                                                    | 18.8                                               | 19.7                                                       | 37.3                                                   | 35.4                                                     |
| Zinc          | 10,000                                                 | 10,000                                  | 50.2                                                    | 56.9                                                    | 67.7                                               | 80.2                                                       | 90.8                                                   | 34                                                       |

† Dilution factor varies

**Table 1C**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**

New York, NY

Phase II Investigation Soil Analytical Results

*Metals*

| Client ID     | NYSDEC      | NYSDEC     | SB-7 (1-2)-170330 | SB-7 (18.5-19.5)-170330 | SB-8(1-2)-170328 | SB-8A(4.5-5.5)-170328 | SB-9 (2-3)-170330 | SB-10 (2-3)-170330 |
|---------------|-------------|------------|-------------------|-------------------------|------------------|-----------------------|-------------------|--------------------|
| Lab Sample ID | Part 375    | Part 375   | 460-130646-1      | 460-130646-2            | 460-130460-1     | 460-130460-2          | 460-130646-5      | 460-130646-4       |
| Date Sampled  | Restricted  | Commercial | 3/30/2017         | 3/30/2017               | 3/28/2017        | 3/28/2017             | 3/30/2017         | 3/30/2017          |
| Dilution      | Residential | SCO        | 1/4 †             | 1/4 †                   | 1/4 †            | 1/4 †                 | 1/4 †             | 1/4 †              |
| mg/kg         | mg/kg       | mg/kg      |                   |                         |                  |                       |                   |                    |
| Aluminum      | NS          | NS         | 12,400            | 10,100                  | 9,990            | 9,820                 | 13,800            | 10,600             |
| Antimony      | NS          | NS         | 3.5 U             | 3.8 U                   | 3.2 U            | 3.4 U                 | 3.5 U             | 3.7 U              |
| Arsenic       | 16          | 16         | 11.8              | 3.7                     | 2.4 U            | 2.5 U                 | 6.2               | 6.8                |
| Barium        | 400         | 400        | 101               | 96.7                    | 96.1             | 91.5                  | 153               | 84.8               |
| Beryllium     | 72          | 590        | 0.51              | 0.36 J                  | 0.41             | 0.37                  | 0.59              | 0.44               |
| Cadmium       | 4.3         | 9.3        | 0.7 U             | 0.76 U                  | 0.64 U           | 0.67 U                | 0.71 U            | 0.74 U             |
| Calcium       | NS          | NS         | 2,220             | 9,360                   | 1,420            | 8,070                 | 6,670             | 1,980              |
| Chromium      | 180***      | 1,500***   | 22.6              | 14.9                    | 18.6             | 21.3                  | 22.9              | 23.5               |
| Cobalt        | NS          | NS         | 7.4 J             | 6.7 J                   | 11.5             | 10                    | 8.1 J             | 7.5 J              |
| Copper        | 270         | 270        | 35.4              | 49.6                    | 39.6             | 95.8                  | 27.7              | 30.8               |
| Iron          | NS          | NS         | 18,100            | 20,000                  | 19,500           | 19,100                | 17,500            | 17,000             |
| Lead          | 400         | 1,000      | 110               | 96.7                    | 5                | 6.8                   | 143               | 99.2               |
| Magnesium     | NS          | NS         | 3,350             | 2,570                   | 5,920            | 6,620                 | 3,740             | 3,150              |
| Manganese     | 2,000       | 10,000     | 350               | 551                     | 182              | 125                   | 418               | 333                |
| Mercury       | 0.81        | 2.8        | 0.57              | 0.79                    | 0.015 J          | 0.048                 | 0.44              | 0.34               |
| Nickel        | 310         | 310        | 19.7              | 15.1                    | 24.4             | 28.5                  | 17.9              | 22.1               |
| Potassium     | NS          | NS         | 1,620             | 1,400                   | 6,000            | 5,700                 | 1,350             | 1,370              |
| Selenium      | 180         | 1,500      | 3.5 U             | 3.8 U                   | 3.2 U            | 3.4 U                 | 3.5 U             | 3.7 U              |
| Silver        | 180         | 1,500      | 1.8 U             | 1.9 U                   | 1.6 U            | 1.7 U                 | 1.8 U             | 1.8 U              |
| Sodium        | NS          | NS         | 875 U             | 91.7 J                  | 146 J            | 195 J                 | 404 J             | 921 U              |
| Thallium      | NS          | NS         | 3.5 U             | 3.8 U                   | 3.2 U            | 3.4 U                 | 3.5 U             | 3.7 U              |
| Vanadium      | NS          | NS         | 53.7              | 21                      | 17.2             | 19.2                  | 31.4              | 30                 |
| Zinc          | 10,000      | 10,000     | 82.6              | 70                      | 68.7             | 52.8                  | 94.9              | 86.9               |

† Dilution factor varies

**Table 1D**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**

New York, NY

Phase II Investigation Soil Analytical Results  
*PCBs and Pesticides*

| Client ID                        | NYSDEC<br>Part 375<br>Restricted<br>Residential<br>SCO | NYSDEC<br>Part 375<br>Commercial<br>SCO | SB-1(1-2)-170329<br>460-130545-4<br>3/29/2017 | SB-1(17-18)-170329<br>460-130545-5<br>3/29/2017 | SB-2 (1-2)-170327<br>460-130404-1<br>3/27/2017 | SB-2 (8-9)-170327<br>460-130404-2<br>3/27/2017 | SB-3 (1-2)-170327<br>460-130404-7<br>3/27/2017 | SB-3 (5-6)-170327<br>460-130404-8<br>3/27/2017 |
|----------------------------------|--------------------------------------------------------|-----------------------------------------|-----------------------------------------------|-------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|
| Lab Sample ID                    |                                                        |                                         |                                               |                                                 |                                                |                                                |                                                |                                                |
| Date Sampled                     |                                                        |                                         |                                               |                                                 |                                                |                                                |                                                |                                                |
| PCBs - µg/kg                     |                                                        |                                         |                                               |                                                 |                                                |                                                |                                                |                                                |
| Aroclor 1016                     | NS                                                     | NS                                      | 80 U                                          | 80 U                                            | 80 U                                           | 79 U                                           | 75 U                                           | 81 U                                           |
| Aroclor 1221                     | NS                                                     | NS                                      | 80 U                                          | 80 U                                            | 80 U                                           | 79 U                                           | 75 U                                           | 81 U                                           |
| Aroclor 1232                     | NS                                                     | NS                                      | 80 U                                          | 80 U                                            | 80 U                                           | 79 U                                           | 75 U                                           | 81 U                                           |
| Aroclor 1242                     | NS                                                     | NS                                      | 80 U                                          | 80 U                                            | 80 U                                           | 79 U                                           | 75 U                                           | 81 U                                           |
| Aroclor 1248                     | NS                                                     | NS                                      | 80 U                                          | 80 U                                            | 80 U                                           | 79 U                                           | 75 U                                           | 81 U                                           |
| Aroclor 1254                     | NS                                                     | NS                                      | 80 U                                          | 80 U                                            | 80 U                                           | 79 U                                           | 75 U                                           | 81 U                                           |
| Aroclor 1260                     | NS                                                     | NS                                      | 80 U                                          | 80 U                                            | 80 U                                           | 79 U                                           | 75 U                                           | 81 U                                           |
| Aroclor 1268                     | NS                                                     | NS                                      | 80 U                                          | 80 U                                            | 80 U                                           | 79 U                                           | 75 U                                           | 81 U                                           |
| Aroclor-1262                     | NS                                                     | NS                                      | 80 U                                          | 80 U                                            | 80 U                                           | 79 U                                           | 75 U                                           | 81 U                                           |
| Polychlorinated biphenyls, Total | 1,000                                                  | 1,000                                   | 80 U                                          | 80 U                                            | 80 U                                           | 79 U                                           | 75 U                                           | 81 U                                           |
| Total Conc                       | NS                                                     | NS                                      | ND                                            | ND                                              | ND                                             | ND                                             | ND                                             | ND                                             |

| Pesticides - µg/kg    | µg/kg     | µg/kg      |       |       |       |       |       |       |
|-----------------------|-----------|------------|-------|-------|-------|-------|-------|-------|
| 4,4'-DDD              | 13,000    | 92,000     | 14    | 8 U   | 8 U   | 7.9 U | 7.5 U | 8.1 U |
| 4,4'-DDE              | 8,900     | 62,000     | 190   | 8.4   | 8 U   | 7.9 U | 7.5 U | 8.1 U |
| 4,4'-DDT              | 7,900     | 47,000     | 130   | 11    | 8 U   | 7.9 U | 7.5 U | 8.1 U |
| Aldrin                | 97        | 680        | 8 U   | 8 U   | 8 U   | 7.9 U | 7.5 U | 8.1 U |
| alpha-BHC             | 480       | 3,400      | 2.4 U | 2.4 U | 2.4 U | 2.4 U | 2.3 U | 2.4 U |
| beta-BHC              | 360       | 3,000      | 2.4 U | 2.4 U | 2.4 U | 2.4 U | 2.3 U | 2.4 U |
| Chlordane (technical) | NS        | NS         | 80 U  | 80 U  | 80 U  | 79 U  | 75 U  | 81 U  |
| delta-BHC             | 100,000   | 500,000    | 2.4 U | 2.4 U | 2.4 U | 2.4 U | 2.3 U | 2.4 U |
| Dieldrin              | 200       | 1,400      | 9.2   | 2.4 U | 2.4 U | 2.4 U | 2.3 U | 2.4 U |
| Endosulfan I          | 24,000 TS | 200,000 TS | 8 U   | 8 U   | 8 U   | 7.9 U | 7.5 U | 8.1 U |
| Endosulfan II         | 24,000 TS | 200,000 TS | 8 U   | 8 U   | 8 U   | 7.9 U | 7.5 U | 8.1 U |
| Endosulfan sulfate    | 24,000 TS | 200,000 TS | 8 U   | 8 U   | 8 U   | 7.9 U | 7.5 U | 8.1 U |
| Endrin                | 11,000    | 89,000     | 8 U   | 8 U   | 8 U   | 7.9 U | 7.5 U | 8.1 U |
| Endrin aldehyde       | NS        | NS         | 8 U   | 8 U   | 8 U   | 7.9 U | 7.5 U | 8.1 U |
| Endrin ketone         | NS        | NS         | 8 U   | 8 U   | 8 U   | 7.9 U | 7.5 U | 8.1 U |
| gamma-BHC (Lindane)   | 1,300     | 9,200      | 2.4 U | 2.4 U | 2.4 U | 2.4 U | 2.3 U | 2.4 U |
| Heptachlor            | 2,100     | 15,000     | 8 U   | 8 U   | 8 U   | 7.9 U | 7.5 U | 8.1 U |
| Heptachlor epoxide    | NS        | NS         | 8 U   | 8 U   | 8 U   | 7.9 U | 7.5 U | 8.1 U |
| Methoxychlor          | NS        | NS         | 8 U   | 8 U   | 8 U   | 7.9 U | 7.5 U | 8.1 U |
| Toxaphene             | NS        | NS         | 80 U  | 80 U  | 80 U  | 79 U  | 75 U  | 81 U  |

**Table 1D**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**

New York, NY

Phase II Investigation Soil Analytical Results  
*PCBs and Pesticides*

| Client ID                        | NYSDEC                 | NYSDEC     | SB-4 (5-6)-170327 | SB-4 (6-7)-170327 | SB-5(1-2)-170328 | SB-5(4.5-5.5)-170328 | SB-6(0-1)-170329 | SB-6(18-19)-170329 |
|----------------------------------|------------------------|------------|-------------------|-------------------|------------------|----------------------|------------------|--------------------|
| Lab Sample ID                    | Part 375               | Part 375   | 460-130404-4      | 460-130404-5      | 460-130460-3     | 460-130460-4         | 460-130545-1     | 460-130545-2       |
| Date Sampled                     | Restricted Residential | Commercial | 3/27/2017         | 3/27/2017         | 3/28/2017        | 3/28/2017            | 3/29/2017        | 3/29/2017          |
|                                  | SCO                    | SCO        |                   |                   |                  |                      |                  |                    |
| PCBs - µg/kg                     | µg/kg                  | µg/kg      |                   |                   |                  |                      |                  |                    |
| Aroclor 1016                     | NS                     | NS         | 84 U              | 86 U              | 71 U             | 72 U                 | 80 U             | 77 U               |
| Aroclor 1221                     | NS                     | NS         | 84 U              | 86 U              | 71 U             | 72 U                 | 80 U             | 77 U               |
| Aroclor 1232                     | NS                     | NS         | 84 U              | 86 U              | 71 U             | 72 U                 | 80 U             | 77 U               |
| Aroclor 1242                     | NS                     | NS         | 84 U              | 86 U              | 71 U             | 72 U                 | 80 U             | 77 U               |
| Aroclor 1248                     | NS                     | NS         | 84 U              | 86 U              | 71 U             | 72 U                 | 80 U             | 77 U               |
| Aroclor 1254                     | NS                     | NS         | 84 U              | 86 U              | 71 U             | 72 U                 | 80 U             | 77 U               |
| Aroclor 1260                     | NS                     | NS         | 84 U              | 86 U              | 71 U             | 72 U                 | 80 U             | 77 U               |
| Aroclor 1268                     | NS                     | NS         | 84 U              | 86 U              | 71 U             | 72 U                 | 80 U             | 77 U               |
| Aroclor-1262                     | NS                     | NS         | 84 U              | 86 U              | 71 U             | 72 U                 | 80 U             | 77 U               |
| Polychlorinated biphenyls, Total | 1,000                  | 1,000      | 84 U              | 86 U              | 71 U             | 72 U                 | 80 U             | 77 U               |
| Total Conc                       | NS                     | NS         | ND                | ND                | ND               | ND                   | ND               | ND                 |

| Pesticides - µg/kg    | µg/kg     | µg/kg      |       |       |       |       |       |       |
|-----------------------|-----------|------------|-------|-------|-------|-------|-------|-------|
| 4,4'-DDD              | 13,000    | 92,000     | 8.4 U | 8.6 U | 7.1 U | 7.2 U | 26    | 7.7 U |
| 4,4'-DDE              | 8,900     | 62,000     | 8.4 U | 8.6 U | 7.1 U | 7.2 U | 47    | 7.7 U |
| 4,4'-DDT              | 7,900     | 47,000     | 8.4 U | 8.6 U | 7.1 U | 7.2 U | 82    | 7.7 U |
| Aldrin                | 97        | 680        | 8.4 U | 8.6 U | 7.1 U | 7.2 U | 8 U   | 7.7 U |
| alpha-BHC             | 480       | 3,400      | 2.5 U | 2.6 U | 2.1 U | 2.2 U | 2.4 U | 2.3 U |
| beta-BHC              | 360       | 3,000      | 2.5 U | 2.6 U | 2.1 U | 2.2 U | 2.4 U | 2.3 U |
| Chlordane (technical) | NS        | NS         | 84 U  | 86 U  | 71 U  | 72 U  | 80 U  | 77 U  |
| delta-BHC             | 100,000   | 500,000    | 2.5 U | 2.6 U | 2.1 U | 2.2 U | 2.4 U | 2.3 U |
| Dieldrin              | 200       | 1,400      | 2.5 U | 2.6 U | 2.1 U | 2.2 U | 19    | 2.3 U |
| Endosulfan I          | 24,000 TS | 200,000 TS | 8.4 U | 8.6 U | 7.1 U | 7.2 U | 8 U   | 7.7 U |
| Endosulfan II         | 24,000 TS | 200,000 TS | 8.4 U | 8.6 U | 7.1 U | 7.2 U | 13    | 7.7 U |
| Endosulfan sulfate    | 24,000 TS | 200,000 TS | 8.4 U | 8.6 U | 7.1 U | 7.2 U | 22    | 7.7 U |
| Endrin                | 11,000    | 89,000     | 8.4 U | 8.6 U | 7.1 U | 7.2 U | 8 U   | 7.7 U |
| Endrin aldehyde       | NS        | NS         | 8.4 U | 8.6 U | 7.1 U | 7.2 U | 8 U   | 7.7 U |
| Endrin ketone         | NS        | NS         | 8.4 U | 8.6 U | 7.1 U | 7.2 U | 8 U   | 7.7 U |
| gamma-BHC (Lindane)   | 1,300     | 9,200      | 2.5 U | 2.6 U | 2.1 U | 2.2 U | 2.4 U | 2.3 U |
| Heptachlor            | 2,100     | 15,000     | 8.4 U | 8.6 U | 7.1 U | 7.2 U | 8 U   | 7.7 U |
| Heptachlor epoxide    | NS        | NS         | 8.4 U | 8.6 U | 7.1 U | 7.2 U | 8 U   | 7.7 U |
| Methoxychlor          | NS        | NS         | 8.4 U | 8.6 U | 7.1 U | 7.2 U | 8 U   | 7.7 U |
| Toxaphene             | NS        | NS         | 84 U  | 86 U  | 71 U  | 72 U  | 80 U  | 77 U  |

**Table 1D**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**

New York, NY

Phase II Investigation Soil Analytical Results  
*PCBs and Pesticides*

| Client ID                        | NYSDEC Part 375 Restricted Residential SCO | NYSDEC Part 375 Commercial SCO | SB-7 (1-2)-170330<br>460-130646-1<br>3/30/2017 | SB-7 (18.5-19.5)-170330<br>460-130646-2<br>3/30/2017 | SB-8(1-2)-170328<br>460-130460-1<br>3/28/2017 | SB-8A(4.5-5.5)-170328<br>460-130460-2<br>3/28/2017 | SB-9 (2-3)-170330<br>460-130646-5<br>3/30/2017 | SB-10 (2-3)-170330<br>460-130646-4<br>3/30/2017 |
|----------------------------------|--------------------------------------------|--------------------------------|------------------------------------------------|------------------------------------------------------|-----------------------------------------------|----------------------------------------------------|------------------------------------------------|-------------------------------------------------|
| Lab Sample ID                    |                                            |                                |                                                |                                                      |                                               |                                                    |                                                |                                                 |
| Date Sampled                     |                                            |                                |                                                |                                                      |                                               |                                                    |                                                |                                                 |
| PCBs - µg/kg                     |                                            |                                |                                                |                                                      |                                               |                                                    |                                                |                                                 |
| Aroclor 1016                     | NS                                         | NS                             | 77 U                                           | 81 U                                                 | 68 U                                          | 72 U                                               | 79 U                                           | 79 U                                            |
| Aroclor 1221                     | NS                                         | NS                             | 77 U                                           | 81 U                                                 | 68 U                                          | 72 U                                               | 79 U                                           | 79 U                                            |
| Aroclor 1232                     | NS                                         | NS                             | 77 U                                           | 81 U                                                 | 68 U                                          | 72 U                                               | 79 U                                           | 79 U                                            |
| Aroclor 1242                     | NS                                         | NS                             | 77 U                                           | 81 U                                                 | 68 U                                          | 72 U                                               | 79 U                                           | 79 U                                            |
| Aroclor 1248                     | NS                                         | NS                             | 77 U                                           | 81 U                                                 | 68 U                                          | 72 U                                               | 79 U                                           | 79 U                                            |
| Aroclor 1254                     | NS                                         | NS                             | 77 U                                           | 81 U                                                 | 68 U                                          | 72 U                                               | 79 U                                           | 79 U                                            |
| Aroclor 1260                     | NS                                         | NS                             | 77 U                                           | 81 U                                                 | 68 U                                          | 72 U                                               | 79 U                                           | 79 U                                            |
| Aroclor 1268                     | NS                                         | NS                             | 77 U                                           | 81 U                                                 | 68 U                                          | 72 U                                               | 79 U                                           | 79 U                                            |
| Aroclor-1262                     | NS                                         | NS                             | 77 U                                           | 81 U                                                 | 68 U                                          | 72 U                                               | 79 U                                           | 79 U                                            |
| Polychlorinated biphenyls, Total | 1,000                                      | 1,000                          | 77 U                                           | 81 U                                                 | 68 U                                          | 72 U                                               | 79 U                                           | 79 U                                            |
| Total Conc                       | NS                                         | NS                             | ND                                             | ND                                                   | ND                                            | ND                                                 | ND                                             | ND                                              |

| Pesticides - µg/kg    | µg/kg     | µg/kg      |       |       |       |       |       |       |
|-----------------------|-----------|------------|-------|-------|-------|-------|-------|-------|
| 4,4'-DDD              | 13,000    | 92,000     | 21    | 8.1 U | 6.8 U | 7.2 U | 8.2   | 7.9 U |
| 4,4'-DDE              | 8,900     | 62,000     | 77    | 8.1 U | 6.8 U | 7.2 U | 47    | 7.9 U |
| 4,4'-DDT              | 7,900     | 47,000     | 65    | 8.1 U | 6.8 U | 7.2 U | 81    | 7.9 U |
| Aldrin                | 97        | 680        | 7.7 U | 8.1 U | 6.8 U | 7.2 U | 7.9 U | 7.9 U |
| alpha-BHC             | 480       | 3,400      | 2.3 U | 2.4 U | 2 U   | 2.2 U | 2.4 U | 2.4 U |
| beta-BHC              | 360       | 3,000      | 2.3 U | 2.4 U | 2 U   | 2.2 U | 2.4 U | 2.4 U |
| Chlordane (technical) | NS        | NS         | 77 U  | 81 U  | 68 U  | 72 U  | 79 U  | 79 U  |
| delta-BHC             | 100,000   | 500,000    | 2.3 U | 2.4 U | 2 U   | 2.2 U | 2.4 U | 2.4 U |
| Dieldrin              | 200       | 1,400      | 2.3 U | 2.4 U | 2 U   | 2.2 U | 2.4   | 2.4 U |
| Endosulfan I          | 24,000 TS | 200,000 TS | 7.7 U | 8.1 U | 6.8 U | 7.2 U | 7.9 U | 7.9 U |
| Endosulfan II         | 24,000 TS | 200,000 TS | 7.7 U | 8.1 U | 6.8 U | 7.2 U | 7.9 U | 7.9 U |
| Endosulfan sulfate    | 24,000 TS | 200,000 TS | 7.7 U | 8.1 U | 6.8 U | 7.2 U | 7.9 U | 7.9 U |
| Endrin                | 11,000    | 89,000     | 7.7 U | 8.1 U | 6.8 U | 7.2 U | 7.9 U | 7.9 U |
| Endrin aldehyde       | NS        | NS         | 7.7 U | 8.1 U | 6.8 U | 7.2 U | 7.9 U | 7.9 U |
| Endrin ketone         | NS        | NS         | 7.7 U | 8.1 U | 6.8 U | 7.2 U | 7.9 U | 7.9 U |
| gamma-BHC (Lindane)   | 1,300     | 9,200      | 2.3 U | 2.4 U | 2 U   | 2.2 U | 2.4 U | 2.4 U |
| Heptachlor            | 2,100     | 15,000     | 7.7 U | 8.1 U | 6.8 U | 7.2 U | 7.9 U | 7.9 U |
| Heptachlor epoxide    | NS        | NS         | 7.7 U | 8.1 U | 6.8 U | 7.2 U | 7.9 U | 7.9 U |
| Methoxychlor          | NS        | NS         | 7.7 U | 8.1 U | 6.8 U | 7.2 U | 7.9 U | 7.9 U |
| Toxaphene             | NS        | NS         | 77 U  | 81 U  | 68 U  | 72 U  | 79 U  | 79 U  |

**Table 1 Notes**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**  
**New York, NY**  
Phase II Investigation Soil Analytical Results

**GENERAL**

- NS** : No standard.
- U** : The analyte was not detected at the indicated concentration.
- J** : The concentration given is an estimated value.
- TS** : Value represents a sum total standard.
- B** : The analyte was found in an associated blank, as well as in the sample.
- U N** : Indicates analyzed for but not detected.
- ND** : Total concentration = not detected.

**SOIL**

**Part 375 Soil Cleanup Objectives** : Soil Cleanup Objectives listed in NYSDEC (New York State Department of Environmental Conservation) "Part 375" Regulations (6 NYCRR Part 375).

**µg/kg** : micrograms per kilogram = parts per billion (ppb)

**mg/kg** : milligrams per kilogram = parts per million (ppm)

**Metals**

\*\*\* : Standard reflects trivalent, not total, Chromium.

**Exceedences of Part 375 Restricted Residential Soil Cleanup Objectives (RRSCO) are highlighted in gray.**  
**Exceedences of Part 375 Commercial Soil Cleanup Objectives (CSCO) are highlighted with a border.**

**Table 2A**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**

New York, NY  
Phase II Investigation Groundwater Analytical Results  
Volatile Organic Compounds

| Client ID                             | NYSDEC Class GA  | NYSDEC Class E     | GW-1-170329  | GW-2-170327  | GW-4-170327  | GW-5-170328  | GW-7-170330  | TB-170327    | Trip Blank   |
|---------------------------------------|------------------|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Lab Sample ID                         | Class GA         | Class E            | 460-130545-6 | 460-130404-3 | 460-130404-6 | 460-130460-5 | 460-130646-3 | 460-130404-9 | 460-130646-6 |
| Date Sampled                          | Ambient Standard | Aesthetic Standard | 3/29/2017    | 3/27/2017    | 3/27/2017    | 3/28/2017    | 3/30/2017    | 3/27/2017    | 3/30/2017    |
| µg/L                                  | µg/L             | µg/L               |              |              |              |              |              |              |              |
| 1,1,1-Trichloroethane                 | 5                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| 1,1,2,2-Tetrachloroethane             | 5                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 5                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| 1,1,2-Trichloroethane                 | 1                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| 1,1-Dichloroethane                    | 5                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| 1,1-Dichloroethene                    | 5                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| 1,2,3-Trichlorobenzene                | 5                | 10 TS              | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| 1,2,4-Trichlorobenzene                | 5                | 10 TS              | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| 1,2-Dibromo-3-Chloropropane           | 0.04             | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| 1,2-Dichlorobenzene                   | 3                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| 1,2-Dichloroethane                    | 0.6              | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| 1,2-Dichloropropane                   | 1                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| 1,3-Dichlorobenzene                   | 3                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| 1,4-Dichlorobenzene                   | 3                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| 1,4-Dioxane                           | NS               | NS                 | 50 U *       | 50 U         | 50 U         | 50 U *       | 50 U         | 50 U         | 50 U         |
| 2-Butanone (MEK)                      | 50               | NS                 | 5 U          | 5 U          | 5 U          | 5 U          | 5 U          | 5 U          | 5 U          |
| 2-Hexanone                            | 50               | NS                 | 5 U          | 5 U          | 5 U          | 5 U          | 5 U          | 5 U          | 5 U          |
| 4-Methyl-2-pentanone (MIBK)           | NS               | NS                 | 5 U          | 5 U          | 5 U          | 5 U          | 5 U          | 5 U          | 5 U          |
| Acetone                               | 50               | NS                 | 5 U          | 1.9 JB       | 1.3 JB       | 5 U          | 5 U          | 5 U          | 5 U          |
| Benzene                               | 1                | NS                 | 1 U          | 0.25 J       | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Bromoform                             | 50               | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Bromomethane                          | 5                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Carbon disulfide                      | 60               | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Carbon tetrachloride                  | 5                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Chlorobenzene                         | 5                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Chlorobromomethane                    | 5                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Chlorodibromomethane                  | 50               | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Chloroethane                          | 5                | NS                 | 1 U          | 1 U *        | 1 U *        | 1 U          | 1 U          | 1 U *        | 1 U          |
| Chloroform                            | 7                | NS                 | 1 U          | 1            | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Chloromethane                         | 5                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| cis-1,2-Dichloroethene                | 5                | NS                 | 1 U          | 9.5          | 2.5          | 1 U          | 1 U          | 1 U          | 1 U          |
| cis-1,3-Dichloropropene               | 0.4 TS           | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Cyclohexane                           | NS               | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Dichlorobromomethane                  | 50               | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Dichlorodifluoromethane               | 5                | NS                 | 1 U          | 2.5          | 0.92 J       | 1 U          | 1 U          | 1 U          | 1 U          |
| Ethylbenzene                          | 5                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Ethylene Dibromide                    | 0.0006           | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Isopropylbenzene                      | 5                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Methyl acetate                        | NS               | NS                 | 5 U          | 5 U          | 5 U          | 5 U          | 5 U          | 5 U          | 5 U          |
| Methyl tert-butyl ether               | 10               | NS                 | 1 U          | 0.16 J       | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Methylcyclohexane                     | NS               | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Methylene Chloride                    | 5                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| m-Xylene & p-Xylene                   | 5                | NS                 | 1 U          | 0.67 J       | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| o-Xylene                              | 5                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Styrene                               | 5                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Tetrachloroethene                     | 5                | NS                 | 1 U          | 11           | 1.2          | 1 U          | 1 U          | 1 U          | 1 U          |
| Toluene                               | 5                | NS                 | 1 U          | 0.86 J       | 0.3 J        | 1 U          | 1 U          | 1 U          | 1 U          |
| trans-1,2-Dichloroethene              | 5                | NS                 | 1 U          | 0.19 J       | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| trans-1,3-Dichloropropene             | 0.4 TS           | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Trichloroethene                       | 5                | NS                 | 1 U          | 2.7          | 0.32 J       | 1 U          | 1 U          | 1 U          | 1 U          |
| Trichlorofluoromethane                | 5                | NS                 | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Vinyl chloride                        | 2                | NS                 | 1 U          | 0.2 J        | 1 U          | 1 U          | 1 U          | 1 U          | 1 U          |
| Total Conc                            | NS               | NS                 | ND           | 30.93        | 6.54         | ND           | ND           | ND           | ND           |

**Table 2B**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**

New York, NY  
Phase II Investigation Groundwater Analytical Results  
Semivolatile Organic Compounds

| Client ID<br>Lab Sample ID<br>Date Sampled | NYSDEC<br>Class GA<br>Ambient<br>Standard | NYSDEC<br>Class E<br>Aesthetic<br>Standard | GW-1-170329<br>460-130545-6<br>3/29/2017 | GW-2-170327<br>460-130404-3<br>3/27/2017 | GW-4-170327<br>460-130404-6<br>3/27/2017 | GW-5-170328<br>460-130460-5<br>3/28/2017 | GW-7-170330<br>460-130646-3<br>3/30/2017 |
|--------------------------------------------|-------------------------------------------|--------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| µg/L                                       | µg/L                                      | µg/L                                       |                                          |                                          |                                          |                                          |                                          |
| 1,1'-Biphenyl                              | 5                                         | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 1,2,4,5-Tetrachlorobenzene                 | 5                                         | 10 TS                                      | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 2,2'-oxybis[1-chloropropane]               | 5                                         | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 2,3,4,6-Tetrachlorophenol                  | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 2,4,5-Trichlorophenol                      | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 2,4,6-Trichlorophenol                      | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 2,4-Dichlorophenol                         | 5                                         | 1 TS                                       | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 2,4-Dimethylphenol                         | 50                                        | 1 TS                                       | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 2,4-Dinitrophenol                          | 10                                        | 1 TS                                       | 21 U                                     | 20 U                                     | 20 U                                     | 21 U                                     | 20 U                                     |
| 2,4-Dinitrotoluene                         | 5                                         | NS                                         | 2.1 U                                    | 2 U                                      | 2 U                                      | 2.1 U                                    | 2 U                                      |
| 2,6-Dinitrotoluene                         | 5                                         | NS                                         | 2.1 U                                    | 2 U                                      | 2 U                                      | 2.1 U                                    | 2 U                                      |
| 2-Chloronaphthalene                        | NS                                        | 10                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 2-Chlorophenol                             | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 2-Methylnaphthalene                        | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 2-Methylphenol                             | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 2-Nitroaniline                             | 5                                         | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 2-Nitrophenol                              | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 3,3'-Dichlorobenzidine                     | 5                                         | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 3-Nitroaniline                             | 5                                         | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 4,6-Dinitro-2-methylphenol                 | NS                                        | NS                                         | 21 U                                     | 20 U                                     | 20 U                                     | 21 U                                     | 20 U                                     |
| 4-Bromophenyl phenyl ether                 | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 4-Chloro-3-methylphenol                    | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 4-Chloroaniline                            | 5                                         | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 4-Chlorophenyl phenyl ether                | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 4-Methylphenol                             | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 4-Nitroaniline                             | 5                                         | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| 4-Nitrophenol                              | NS                                        | NS                                         | 21 U                                     | 20 U                                     | 20 U                                     | 21 U                                     | 20 U                                     |
| Acenaphthene                               | NS                                        | 20                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Acenaphthylene                             | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Acetophenone                               | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Anthracene                                 | 50                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Atrazine                                   | 7.5                                       | NS                                         | 2.1 U                                    | 2 U                                      | 2 U                                      | 2.1 U                                    | 2 U                                      |
| Benzaldehyde                               | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Benzo[a]anthracene                         | 0.002                                     | NS                                         | 1.1 U                                    | 1 U                                      | 1 U                                      | 1.1 U                                    | 1 U*                                     |
| Benzo[a]pyrene                             | ND                                        | NS                                         | 1.1 U                                    | 1 U                                      | 1 U                                      | 1.1 U                                    | 1 U                                      |
| Benzo[b]fluoranthene                       | 0.002                                     | NS                                         | 1.1 U                                    | 1 U                                      | 1 U                                      | 1.1 U                                    | 1 U                                      |
| Benzo[g,h,i]perylene                       | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Benzo[k]fluoranthene                       | 0.002                                     | NS                                         | 1.1 U                                    | 1 U                                      | 1 U                                      | 1.1 U                                    | 1 U                                      |
| Bis(2-chloroethoxy)methane                 | 5                                         | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Bis(2-chloroethyl)ether                    | 1                                         | NS                                         | 1.1 U                                    | 1 U                                      | 1 U                                      | 1.1 U                                    | 1 U                                      |
| Bis(2-ethylhexyl) phthalate                | 5                                         | NS                                         | 2.1 U                                    | 2 U                                      | 2 U                                      | 2.1 U                                    | 2 U                                      |
| Butyl benzyl phthalate                     | 50                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Caprolactam                                | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Carbazole                                  | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Chrysene                                   | 0.002                                     | NS                                         | 2.1 U                                    | 2 U                                      | 2 U                                      | 2.1 U                                    | 2 U*                                     |
| Dibenz(a,h)anthracene                      | NS                                        | NS                                         | 1.1 U                                    | 1 U                                      | 1 U                                      | 1.1 U                                    | 1 U                                      |
| Dibenzofuran                               | NS                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U*                                    |
| Diethyl phthalate                          | 50                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Dimethyl phthalate                         | 50                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Di-n-butyl phthalate                       | 50                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Di-n-octyl phthalate                       | 50                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Fluoranthene                               | 50                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Fluorene                                   | 50                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Hexachlorobenzene                          | 0.04                                      | NS                                         | 1.1 U                                    | 1 U                                      | 1 U                                      | 1.1 U                                    | 1 U                                      |
| Hexachlorobutadiene                        | 0.5                                       | NS                                         | 1.1 U                                    | 1 U                                      | 1 U                                      | 1.1 U                                    | 1 U                                      |
| Hexachlorocyclopentadiene                  | 5                                         | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Hexachloroethane                           | 5                                         | NS                                         | 1.1 U                                    | 1 U                                      | 1 U                                      | 1.1 U                                    | 1 U                                      |
| Indeno[1,2,3-cd]pyrene                     | 0.002                                     | NS                                         | 1.1 U                                    | 1 U                                      | 1 U                                      | 1.1 U                                    | 1 U                                      |
| Isophorone                                 | 50                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Naphthalene                                | NS                                        | 10                                         | 2.4 J                                    | 10 U                                     | 1.9 J                                    | 11 U                                     | 10 U                                     |
| Nitrobenzene                               | 0.4                                       | NS                                         | 1.1 U                                    | 1 U                                      | 1 U                                      | 1.1 U                                    | 1 U                                      |
| N-Nitrosodi-n-propylamine                  | NS                                        | NS                                         | 1.1 U                                    | 1 U                                      | 1 U                                      | 1.1 U                                    | 1 U                                      |
| N-Nitrosodiphenylamine                     | 50                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Pentachlorophenol                          | NS                                        | 1 TS                                       | 21 U                                     | 20 U                                     | 20 U                                     | 21 U                                     | 20 U                                     |
| Phenanthrene                               | 50                                        | NS                                         | 0.97 J                                   | 10 U                                     | 1.5 J                                    | 11 U                                     | 10 U                                     |
| Phenol                                     | NS                                        | 1 TS                                       | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Pyrene                                     | 50                                        | NS                                         | 11 U                                     | 10 U                                     | 10 U                                     | 11 U                                     | 10 U                                     |
| Total Conc                                 | NS                                        | NS                                         | 3.37                                     | ND                                       | 3.4                                      | ND                                       | ND                                       |

**Table 2C**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**

New York, NY  
Phase II Investigation Groundwater Analytical Results  
Metals

| Client ID           | NYSDEC   | NYSDEC    | GW-1-170329  | GW-2-170327  | GW-4-170327  | GW-5-170328  | GW-7-170330  |
|---------------------|----------|-----------|--------------|--------------|--------------|--------------|--------------|
| Lab Sample ID       | Class GA | Class E   | 460-130545-6 | 460-130404-3 | 460-130404-6 | 460-130460-5 | 460-130646-3 |
| Date Sampled        | Ambient  | Aesthetic | 3/29/2017    | 3/27/2017    | 3/27/2017    | 3/28/2017    | 3/30/2017    |
| Dilution            | Standard | Standard  | 1/2 †        | 1/2 †        | 1/2 †        | 1/2 †        | 1/2 †        |
| Total Metals - µg/L | µg/L     | µg/L      |              |              |              |              |              |
| Aluminum            | NS       | NS        | 48,400       | 2,570        | 783          | 3,800        | 426          |
| Antimony            | 3        | NS        | 2            | 0.75 J       | 2 U          | 2 U          | 2 U          |
| Arsenic             | 25       | NS        | 7.7          | 1.3 J        | 0.71 J       | 0.87 J       | 1.1 J        |
| Barium              | 1,000    | NS        | 773          | 148          | 77.3         | 39.3         | 104          |
| Beryllium           | 3        | NS        | 5.6          | 0.8 U        | 0.8 U        | 0.8 U        | 0.8 U        |
| Cadmium             | 5        | NS        | 2 U          | 2 U          | 2 U          | 2 U          | 2 U          |
| Calcium             | NS       | NS        | 115,000      | 169,000      | 99,700       | 70,700       | 191,000      |
| Chromium            | 50       | NS        | 117          | 5.8          | 4.5          | 6.3          | 4 U          |
| Cobalt              | NS       | NS        | 63.9         | 11           | 4.9          | 4.2          | 1.5 J        |
| Copper              | 200      | NS        | 201          | 12.1         | 6.4          | 13.9         | 2.8 J        |
| Iron                | NS       | 300       | 108,000      | 4,510        | 1,520        | 4,680        | 1,160        |
| Lead                | 25       | NS        | 345          | 12.3         | 1.8          | 4.4          | 4.9          |
| Magnesium           | 35,000   | NS        | 31,200       | 55,300       | 34,700       | 5,820        | 19,000       |
| Manganese           | NS       | 300       | 2,760        | 5,700        | 2,530        | 130          | 5,050        |
| Mercury             | 0.7      | NS        | 1.7          | 0.2 U        | 0.2 U        | 0.2 U        | 0.2 U        |
| Nickel              | 100      | NS        | 107          | 12.4         | 11.2         | 5.4          | 6.9          |
| Potassium           | NS       | NS        | 27,600       | 14,600       | 11,800       | 12,000       | 18,300       |
| Selenium            | 10       | NS        | 8.6 J        | 10 U         | 10 U         | 1.8 J        | 1.4 J        |
| Silver              | 50       | NS        | 2 U          | 2 U          | 2 U          | 2 U          | 2 U          |
| Sodium              | 20,000   | NS        | 48,100       | 287,000      | 111,000      | 21,800       | 29,800       |
| Thallium            | 0.5      | NS        | 1.7          | 0.8 U        | 0.8 U        | 0.8 U        | 0.8 U        |
| Vanadium            | NS       | NS        | 165          | 7.2          | 3.9 J        | 6.5          | 2.5 J        |
| Zinc                | 2,000    | 5,000     | 332          | 16.4         | 9.7 J        | 21.6         | 16 U         |

| Dissolved Metals - µg/L | µg/L   | µg/L  | 1/2 †   | 1/2 †   | 1/2 †   | 1/2 †  | 1/2 †   |
|-------------------------|--------|-------|---------|---------|---------|--------|---------|
| Aluminum, Dissolved     | NS     | NS    | 46      | 130     | 43.9    | 885    | 177     |
| Antimony, Dissolved     | 3      | NS    | 0.87 J  | 2 U     | 2 U     | 2 U    | 2 U     |
| Arsenic, Dissolved      | 25     | NS    | 2 U     | 2 U     | 2 U     | 2 U    | 0.93 J  |
| Barium, Dissolved       | 1,000  | NS    | 51.7    | 116     | 72.7    | 24.1   | 97.8    |
| Beryllium, Dissolved    | 3      | NS    | 0.8 U   | 0.8 U   | 0.8 U   | 0.8 U  | 0.8 U   |
| Cadmium, Dissolved      | 5      | NS    | 2 U     | 2 U     | 2 U     | 2 U    | 2 U     |
| Calcium, Dissolved      | NS     | NS    | 122,000 | 156,000 | 103,000 | 69,900 | 187,000 |
| Chromium, Dissolved     | 50     | NS    | 4 U     | 4 U     | 1.3 J   | 4 U    | 4 U     |
| Cobalt, Dissolved       | NS     | NS    | 4 U     | 8.2     | 4.3     | 4 U    | 1.3 J   |
| Copper, Dissolved       | 200    | NS    | 2.3 J   | 1.7 J   | 1.4 J   | 2.1 J  | 2 J     |
| Iron, Dissolved         | NS     | 300   | 78.4 J  | 352     | 135     | 448    | 379     |
| Lead, Dissolved         | 25     | NS    | 0.79 J  | 1.5     | 1.2 U   | 0.96 J | 4.4     |
| Magnesium, Dissolved    | 35,000 | NS    | 15,900  | 52,100  | 36,300  | 4,940  | 18,200  |
| Manganese, Dissolved    | NS     | 300   | 378     | 5,240   | 2,580   | 32     | 4,880   |
| Mercury, Dissolved      | 0.7    | NS    | 0.2 U   | 0.2 U   | 0.2 U   | 0.2 U  | 0.2 U   |
| Nickel, Dissolved       | 100    | NS    | 1.5 J   | 7.7     | 9.8     | 4 U    | 5.9     |
| Potassium, Dissolved    | NS     | NS    | 9,570   | 13,000  | 12,000  | 12,300 | 18,000  |
| Selenium, Dissolved     | 10     | NS    | 7.2 J   | 10 U    | 10 U    | 2.3 J  | 1.5 J   |
| Silver, Dissolved       | 50     | NS    | 2 U     | 2 U     | 2 U     | 2 U    | 2 U     |
| Sodium, Dissolved       | 20,000 | NS    | 51,500  | 272,000 | 112,000 | 22,300 | 25,600  |
| Thallium, Dissolved     | 0.5    | NS    | 0.8 U   | 0.8 U   | 0.8 U   | 0.8 U  | 0.8 U   |
| Vanadium, Dissolved     | NS     | NS    | 4 U     | 4 U     | 4 U     | 2.7 J  | 4 U     |
| Zinc, Dissolved         | 2,000  | 5,000 | 16 U    | 16 U    | 16 U    | 16 U   | 16 U    |

† Dilution factor varies

**Table 2D**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**

New York, NY  
Phase II Investigation Groundwater Analytical Results  
PCBs and Pesticides

| Client ID<br>Lab Sample ID<br>Date Sampled | NYSDEC<br>Class GA<br>Ambient<br>Standard | NYSDEC<br>Class E<br>Aesthetic<br>Standard | GW-1-170329<br>460-130545-6<br>3/29/2017 | GW-2-170327<br>460-130404-3<br>3/27/2017 | GW-4-170327<br>460-130404-6<br>3/27/2017 | GW-5-170328<br>460-130460-5<br>3/28/2017 | GW-7-170330<br>460-130646-3<br>3/30/2017 |
|--------------------------------------------|-------------------------------------------|--------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| PCBs - µg/L                                | µg/L                                      | µg/L                                       |                                          |                                          |                                          |                                          |                                          |
| Aroclor 1016                               | NS                                        | NS                                         | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.41 U                                   |
| Aroclor 1221                               | NS                                        | NS                                         | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.41 U                                   |
| Aroclor 1232                               | NS                                        | NS                                         | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.41 U                                   |
| Aroclor 1242                               | NS                                        | NS                                         | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.41 U                                   |
| Aroclor 1248                               | NS                                        | NS                                         | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.41 U                                   |
| Aroclor 1254                               | NS                                        | NS                                         | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.41 U                                   |
| Aroclor 1260                               | NS                                        | NS                                         | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.41 U                                   |
| Aroclor 1268                               | NS                                        | NS                                         | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.41 U                                   |
| Aroclor-1262                               | NS                                        | NS                                         | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.41 U                                   |
| Polychlorinated biphenyls, Total           | 0.09                                      | NS                                         | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.4 U                                    | 0.41 U                                   |
| Total Conc                                 | NS                                        | NS                                         | ND                                       | ND                                       | ND                                       | ND                                       | ND                                       |

| Pesticides - µg/L     | µg/L  | µg/L |        |        |        |        |         |
|-----------------------|-------|------|--------|--------|--------|--------|---------|
| 4,4'-DDD              | 0.3   | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| 4,4'-DDE              | 0.2   | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| 4,4'-DDT              | 0.2   | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| Aldrin                | ND    | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| alpha-BHC             | 0.01  | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| beta-BHC              | 0.04  | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| Chlordane (technical) | 0.05  | NS   | 0.51 U | 0.5 U  | 0.5 U  | 0.5 U  | 0.54 U  |
| delta-BHC             | 0.04  | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| Dieldrin              | 0.004 | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| Endosulfan I          | NS    | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| Endosulfan II         | NS    | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| Endosulfan sulfate    | NS    | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| Endrin                | ND    | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| Endrin aldehyde       | 5     | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| Endrin ketone         | 5     | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| gamma-BHC (Lindane)   | 0.05  | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| Heptachlor            | 0.04  | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| Heptachlor epoxide    | 0.03  | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| Methoxychlor          | 35    | NS   | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.022 U |
| Toxaphene             | 0.06  | NS   | 0.51 U | 0.5 U  | 0.5 U  | 0.5 U  | 0.54 U  |

**Table 2 Notes**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**  
**New York, NY**

Phase II Investigation Groundwater Analytical Results

**GENERAL**

- NS** : No standard.
- ND** : Total concentration = not detected.
- U** : The analyte was not detected at the indicated concentration.
- J** : The concentration given is an estimated value.
- TS** : Value represents a sum total standard.
- U\*** : LCS or LCSD is outside acceptance limits.

**GROUNDWATER**

**NYSDEC**  
**Class GA** : New York State Department of Environmental Conservation Technical and Operational  
**Ambient** : Guidance Series (1.1.1): Class GA Ambient Water Quality Standards and Guidance Values.  
**Standard** : Class GA aesthetic values marked in parenthesis.

**µg/L** : micrograms per Liter = parts per billion (ppb)

**Exceedences of NYSDEC Class GA Ambient Standards are highlighted in bold font.**  
**Exceedences of NYSDEC Class E Aesthetic Standards are highlighted in gray.**

**Table 3**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**

New York, NY

Phase II Investigation Soil Vapor Analytical Results  
 Volatile Organic Compounds

| Client ID                        | NYSDOH 2006              | SV-1-170329 | SV-2-170328 | SV-3-170329 | SV-4-170328 |
|----------------------------------|--------------------------|-------------|-------------|-------------|-------------|
| Lab Sample ID                    | Soil Vapor               | 200-38009-2 | 200-38004-2 | 200-38009-3 | 200-38004-3 |
| Date Sampled                     | Intrusion                | 3/29/2017   | 3/28/2017   | 3/29/2017   | 3/28/2017   |
| Dilution                         | Air Guidance             | 5           | 4           | 4           | 6.06        |
| Value                            | Value                    |             |             |             |             |
| $\mu\text{g}/\text{m}^3$         | $\mu\text{g}/\text{m}^3$ |             |             |             |             |
| 1,1,1-Trichloroethane            | NS                       | 5.5 U       | 4.4 U       | 4.4 U       | 6.6 U       |
| 1,1,2,2-Tetrachloroethane        | NS                       | 6.9 U       | 5.5 U       | 5.5 U       | 8.3 U       |
| 1,1,2-Trichloroethane            | NS                       | 5.5 U       | 4.4 U       | 4.4 U       | 6.6 U       |
| 1,1-Dichloroethane               | NS                       | 4 U         | 3.2 U       | 3.2 U       | 4.9 U       |
| 1,1-Dichloroethene               | NS                       | 4 U         | 3.2 U       | 3.2 U       | 4.8 U       |
| 1,2,4-Trichlorobenzene           | NS                       | 19 U        | 15 U        | 15 U        | 22 U        |
| 1,2,4-Trimethylbenzene           | NS                       | 45          | 11          | 77          | 7.3         |
| 1,2-Dibromoethane                | NS                       | 7.7 U       | 6.1 U       | 6.1 U       | 9.3 U       |
| 1,2-Dichlorobenzene              | NS                       | 6 U         | 4.8 U       | 4.8 U       | 7.3 U       |
| 1,2-Dichloroethane               | NS                       | 4 U         | 3.2 U       | 3.2 U       | 4.9 U       |
| 1,2-Dichloroethene, Total        | NS                       | 7.9 U       | 6.3 U       | 6.3 U       | 9.6 U       |
| 1,2-Dichloropropane              | NS                       | 4.6 U       | 3.7 U       | 3.7 U       | 5.6 U       |
| 1,2-Dichlorotetrafluoroethane    | NS                       | 7 U         | 5.6 U       | 5.6 U       | 8.5 U       |
| 1,3,5-Trimethylbenzene           | NS                       | 14          | 4.5         | 20          | 6 U         |
| 1,3-Butadiene                    | NS                       | 5.3         | 7.5         | 8.3         | 2.7 U       |
| 1,3-Dichlorobenzene              | NS                       | 6 U         | 4.8 U       | 4.8 U       | 7.3 U       |
| 1,4-Dichlorobenzene              | NS                       | 6 U         | 4.8 U       | 4.8 U       | 7.3 U       |
| 1,4-Dioxane                      | NS                       | 90 U        | 72 U        | 72 U        | 110 U       |
| 2,2,4-Trimethylpentane           | NS                       | 4.7 U       | 23          | 11          | 5.7 U       |
| 2-Chlorotoluene                  | NS                       | 5.2 U       | 4.1 U       | 4.1 U       | 6.3 U       |
| 3-Chloropropene                  | NS                       | 7.8 U       | 6.3 U       | 6.3 U       | 9.5 U       |
| 4-Ethyltoluene                   | NS                       | 10          | 3.9 U       | 18          | 6 U         |
| 4-Isopropyltoluene               | NS                       | 5.5 U       | 4.4 U       | 4.4 U       | 6.7 U       |
| Acetone                          | NS                       | 270         | 180         | 280         | 300         |
| Benzene                          | NS                       | 14          | 13          | 8.8         | 3.9 U       |
| Benzyl chloride                  | NS                       | 5.2 U       | 4.1 U       | 4.1 U       | 6.3 U       |
| Bromodichloromethane             | NS                       | 6.7 U       | 5.4 U       | 5.4 U       | 8.1 U       |
| Bromoethene(Vinyl Bromide)       | NS                       | 4.4 U       | 3.5 U       | 3.5 U       | 5.3 U       |
| Bromoform                        | NS                       | 10 U        | 8.3 U       | 8.3 U       | 13 U        |
| Bromomethane                     | NS                       | 3.9 U       | 3.1 U       | 3.1 U       | 4.7 U       |
| Carbon disulfide                 | NS                       | 7.8 U       | 27          | 91          | 9.4 U       |
| Carbon tetrachloride             | NS                       | 1.3 U       | 1 U         | 1 U         | 1.5 U       |
| Chlorobenzene                    | NS                       | 4.6 U       | 3.7 U       | 3.7 U       | 5.6 U       |
| Chloroethane                     | NS                       | 6.6 U       | 5.3 U       | 5.3 U       | 8 U         |
| Chloroform                       | NS                       | 4.9 U       | 3.9 U       | 3.9 U       | 5.9 U       |
| Chloromethane                    | NS                       | 5.2 U       | 4.1 U       | 4.1 U       | 6.3 U       |
| cis-1,2-Dichloroethene           | NS                       | 4 U         | 3.2 U       | 3.2 U       | 4.8 U       |
| cis-1,3-Dichloropropene          | NS                       | 4.5 U       | 3.6 U       | 3.6 U       | 5.5 U       |
| Cumene                           | NS                       | 4.9 U       | 3.9 U       | 3.9 U       | 6 U         |
| Cyclohexane                      | NS                       | 3.4 U       | 16          | 8.3         | 4.2 U       |
| Dibromochloromethane             | NS                       | 8.5 U       | 6.8 U       | 6.8 U       | 10 U        |
| Dichlorodifluoromethane          | NS                       | 12 U        | 9.9 U       | 9.9 U       | 15 U        |
| Ethylbenzene                     | NS                       | 22          | 6.6         | 22          | 5.4         |
| Freon 22                         | NS                       | 8.8 U       | 7.1 U       | 7.1 U       | 11 U        |
| Freon TF                         | NS                       | 7.7 U       | 6.1 U       | 6.1 U       | 9.3 U       |
| Hexachlorobutadiene              | NS                       | 11 U        | 8.5 U       | 8.5 U       | 13 U        |
| Isopropyl alcohol                | NS                       | 61 U        | 49 U        | 49 U        | 74 U        |
| m,p-Xylene                       | NS                       | 74          | 26          | 94          | 23          |
| Methyl Butyl Ketone (2-Hexanone) | NS                       | 10 U        | 8.2 U       | 8.2 U       | 12 U        |
| Methyl Ethyl Ketone              | NS                       | 13          | 23          | 24          | 20          |
| methyl isobutyl ketone           | NS                       | 10 U        | 8.2 U       | 8.2 U       | 12 U        |
| Methyl methacrylate              | NS                       | 10 U        | 8.2 U       | 8.2 U       | 12 U        |
| Methyl tert-butyl ether          | NS                       | 3.6 U       | 2.9 U       | 2.9 U       | 4.4 U       |
| Methylene Chloride               | 60                       | 8.7 U       | 6.9 U       | 6.9 U       | 11 U        |
| Naphthalene                      | NS                       | 13 U        | 10 U        | 10 U        | 16 U        |
| n-Butane                         | NS                       | 22          | 340         | 52          | 7.2 U       |
| n-Butylbenzene                   | NS                       | 5.5 U       | 4.4 U       | 4.4 U       | 6.7 U       |
| n-Heptane                        | NS                       | 13          | 53          | 37          | 5 U         |
| n-Hexane                         | NS                       | 12          | 98          | 35          | 4.3 U       |
| n-Propylbenzene                  | NS                       | 7           | 3.9 U       | 11          | 6 U         |
| o-Xylene                         | NS                       | 38          | 9.6         | 42          | 7.6         |
| sec-Butylbenzene                 | NS                       | 5.5 U       | 4.4 U       | 4.4 U       | 6.7 U       |
| Styrene                          | NS                       | 4.3 U       | 3.4 U       | 3.4 U       | 5.2 U       |
| tert-Butyl alcohol               | NS                       | 76 U        | 61 U        | 61 U        | 92 U        |
| tert-Butylbenzene                | NS                       | 5.5 U       | 4.4 U       | 4.4 U       | 6.7 U       |
| Tetrachloroethene                | 30                       | 6.8 U       | 5.4 U       | 5.4 U       | 8.2 U       |
| Tetrahydrofuran                  | NS                       | 74 U        | 59 U        | 59 U        | 89 U        |
| Toluene                          | NS                       | 47          | 21          | 54          | 19          |
| trans-1,2-Dichloroethene         | NS                       | 4 U         | 3.2 U       | 3.2 U       | 4.8 U       |
| trans-1,3-Dichloropropene        | NS                       | 4.5 U       | 3.6 U       | 3.6 U       | 5.5 U       |
| Trichloroethene                  | 2                        | 1.1 U       | 1           | 0.86 U      | 1.3 U       |
| Trichlorofluoromethane           | NS                       | 5.6 U       | 70          | 4.5 U       | 6.8 U       |
| Vinyl chloride                   | NS                       | 0.51 U      | 0.41 U      | 0.41 U      | 0.62 U      |
| Xylene (total)                   | NS                       | 110         | 36          | 140         | 30          |

† Dilution factor varies

**Table 3**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**

New York, NY

Phase II Investigation Soil Vapor Analytical Results  
 Volatile Organic Compounds

| Client ID                        | NYSDOH 2006       | SV-5-170328 | SV-6-170329 | SV-7-170330 | AA-170328   | TB-170329   |
|----------------------------------|-------------------|-------------|-------------|-------------|-------------|-------------|
| Lab Sample ID                    | Soil Vapor        | 200-38004-4 | 200-38009-1 | 200-38067-1 | 200-38004-1 | 200-38009-4 |
| Date Sampled                     | Intrusion         | 3/28/2017   | 3/29/2017   | 3/30/2017   | 3/28/2017   | 3/29/2017   |
| Dilution                         | Air Guidance      | 2           | 6.06        | 9.89/ 98.9† | 1           | 1           |
| Value                            | Value             |             |             |             |             |             |
| µg/m <sup>3</sup>                | µg/m <sup>3</sup> |             |             |             |             |             |
| 1,1,1-Trichloroethane            | NS                | 2.2 U       | 6.6 U       | 11 U        | 1.1 U       | 1.1 U       |
| 1,1,2,2-Tetrachloroethane        | NS                | 2.7 U       | 8.3 U       | 14 U        | 1.4 U       | 1.4 U       |
| 1,1,2-Trichloroethane            | NS                | 2.2 U       | 6.6 U       | 11 U        | 1.1 U       | 1.1 U       |
| 1,1-Dichloroethane               | NS                | 1.6 U       | 4.9 U       | 8 U         | 0.81 U      | 0.81 U      |
| 1,1-Dichloroethene               | NS                | 1.6 U       | 4.8 U       | 7.8 U       | 0.79 U      | 0.79 U      |
| 1,2,4-Trichlorobenzene           | NS                | 7.4 U       | 22 U        | 37 U *      | 3.7 U       | 3.7 U       |
| 1,2,4-Trimethylbenzene           | NS                | 11          | 39          | 49          | 32          | 0.98 U      |
| 1,2-Dibromoethane                | NS                | 3.1 U       | 9.3 U       | 15 U        | 1.5 U       | 1.5 U       |
| 1,2-Dichlorobenzene              | NS                | 2.4 U       | 7.3 U       | 12 U        | 1.2 U       | 1.2 U       |
| 1,2-Dichloroethane               | NS                | 1.6 U       | 4.9 U       | 8 U         | 0.81 U      | 0.81 U      |
| 1,2-Dichloroethene, Total        | NS                | 3.2 U       | 9.6 U       | 16 U        | 1.6 U       | 1.6 U       |
| 1,2-Dichloropropane              | NS                | 1.8 U       | 5.6 U       | 9.1 U       | 0.92 U      | 0.92 U      |
| 1,2-Dichlorotetrafluoroethane    | NS                | 2.8 U       | 8.5 U       | 14 U        | 1.4 U       | 1.4 U       |
| 1,3,5-Trimethylbenzene           | NS                | 3.5         | 12          | 16          | 8.5         | 0.98 U      |
| 1,3-Butadiene                    | NS                | 1.5         | 3           | 15          | 0.44 U      | 0.44 U      |
| 1,3-Dichlorobenzene              | NS                | 7.3         | 7.3 U       | 12 U        | 1.2 U       | 1.2 U       |
| 1,4-Dichlorobenzene              | NS                | 2.4 U       | 7.3 U       | 12 U        | 1.2 U       | 1.2 U       |
| 1,4-Dioxane                      | NS                | 36 U        | 110 U       | 180 U       | 18 U        | 18 U        |
| 2,2,4-Trimethylpentane           | NS                | 33          | 5.7 U       | 9.2 U       | 0.93 U      | 0.93 U      |
| 2-Chlorotoluene                  | NS                | 2.1 U       | 6.3 U       | 10 U        | 1 U         | 1 U         |
| 3-Chloropropene                  | NS                | 3.1 U       | 9.5 U       | 15 U        | 1.6 U       | 1.6 U       |
| 4-Ethyltoluene                   | NS                | 3.4         | 8.9         | 14          | 9.1         | 0.98 U      |
| 4-Isopropyltoluene               | NS                | 2.2 U       | 6.7 U       | 11 U        | 1.1 U       | 1.1 U       |
| Acetone                          | NS                | 75          | 330         | 3700 D      | 76          | 12 U        |
| Benzene                          | NS                | 30          | 4.1         | 6.5         | 2.2         | 0.64 U      |
| Benzyl chloride                  | NS                | 2.1 U       | 6.3 U       | 10 U        | 1 U         | 1 U         |
| Bromodichloromethane             | NS                | 2.7 U       | 8.1 U       | 13 U        | 1.3 U       | 1.3 U       |
| Bromoethene(Vinyl Bromide)       | NS                | 1.7 U       | 5.3 U       | 8.7 U       | 0.87 U      | 0.87 U      |
| Bromoform                        | NS                | 4.1 U       | 13 U        | 20 U        | 2.1 U       | 2.1 U       |
| Bromomethane                     | NS                | 1.6 U       | 4.7 U       | 7.7 U       | 0.78 U      | 0.78 U      |
| Carbon disulfide                 | NS                | 70          | 20          | 15          | 1.6 U       | 1.6 U       |
| Carbon tetrachloride             | NS                | 2           | 1.5 U       | 2.5 U       | 0.45        | 0.25 U      |
| Chlorobenzene                    | NS                | 1.8 U       | 5.6 U       | 9.1 U       | 0.92 U      | 0.92 U      |
| Chloroethane                     | NS                | 2.6 U       | 8 U         | 13 U        | 1.3 U       | 1.3 U       |
| Chloroform                       | NS                | 2.4         | 5.9 U       | 11          | 0.98 U      | 0.98 U      |
| Chloromethane                    | NS                | 2.1 U       | 6.3 U       | 10 U        | 1 U         | 1 U         |
| cis-1,2-Dichloroethene           | NS                | 1.6 U       | 4.8 U       | 7.8 U       | 0.79 U      | 0.79 U      |
| cis-1,3-Dichloropropene          | NS                | 1.8 U       | 5.5 U       | 9 U         | 0.91 U      | 0.91 U      |
| Cumene                           | NS                | 2 U         | 6 U         | 9.7 U       | 0.98 U      | 0.98 U      |
| Cyclohexane                      | NS                | 16          | 4.2 U       | 6.8 U       | 0.69 U      | 0.69 U      |
| Dibromochloromethane             | NS                | 3.4 U       | 10 U        | 17 U        | 1.7 U       | 1.7 U       |
| Dichlorodifluoromethane          | NS                | 4.9 U       | 15 U        | 24 U        | 2.5 U       | 2.5 U       |
| Ethylbenzene                     | NS                | 9.5         | 13          | 22          | 5.1         | 0.87 U      |
| Freon 22                         | NS                | 3.5 U       | 11 U        | 17 U        | 1.9         | 1.8 U       |
| Freon TF                         | NS                | 3.1 U       | 9.3 U       | 15 U        | 1.5 U       | 1.5 U       |
| Hexachlorobutadiene              | NS                | 4.3 U       | 13 U        | 21 U *      | 2.1 U       | 2.1 U       |
| Isopropyl alcohol                | NS                | 32          | 74 U        | 120 U       | 12 U        | 12 U        |
| m,p-Xylene                       | NS                | 35          | 53          | 93          | 30          | 2.2 U       |
| Methyl Butyl Ketone (2-Hexanone) | NS                | 4.1 U       | 12 U        | 20 U        | 2.9         | 2 U         |
| Methyl Ethyl Ketone              | NS                | 35          | 19          | 31          | 16          | 1.5 U       |
| methyl isobutyl ketone           | NS                | 4.1 U       | 12 U        | 20 U        | 2 U         | 2 U         |
| Methyl methacrylate              | NS                | 4.1 U       | 12 U        | 20 U        | 2 U         | 2 U         |
| Methyl tert-butyl ether          | NS                | 1.4 U       | 4.4 U       | 7.1 U       | 0.72 U      | 0.72 U      |
| Methylene Chloride               | 60                | 3.5 U       | 11 U        | 17 U        | 1.7 U       | 1.7 U       |
| Naphthalene                      | NS                | 5.2 U       | 16 U        | 26 U *      | 6.8         | 2.6 U       |
| n-Butane                         | NS                | 130         | 25          | 58          | 3.1         | 1.2 U       |
| n-Butylbenzene                   | NS                | 2.2 U       | 6.7 U       | 11 U        | 3.1         | 1.1 U       |
| n-Heptane                        | NS                | 41          | 9.1         | 16          | 0.82 U      | 0.82 U      |
| n-Hexane                         | NS                | 47          | 7.7         | 15          | 1.1         | 0.7 U       |
| n-Propylbenzene                  | NS                | 2.2         | 6.2         | 10          | 4.6         | 0.98 U      |
| o-Xylene                         | NS                | 13          | 26          | 41          | 9.6         | 0.87 U      |
| sec-Butylbenzene                 | NS                | 2.2 U       | 6.7 U       | 11 U        | 1.1 U       | 1.1 U       |
| Styrene                          | NS                | 1.7 U       | 5.2 U       | 8.4 U       | 0.85 U      | 0.85 U      |
| tert-Butyl alcohol               | NS                | 30 U        | 92 U        | 150 U       | 15 U        | 15 U        |
| tert-Butylbenzene                | NS                | 2.2 U       | 6.7 U       | 11 U        | 1.1 U       | 1.1 U       |
| Tetrachloroethene                | 30                | 2.7 U       | 8.2 U       | 13 U        | 1.4 U       | 1.4 U       |
| Tetrahydrofuran                  | NS                | 29 U        | 89 U        | 150 U       | 15 U        | 15 U        |
| Toluene                          | NS                | 45          | 26          | 43          | 11          | 0.75 U      |
| trans-1,2-Dichloroethene         | NS                | 1.6 U       | 4.8 U       | 7.8 U       | 0.79 U      | 0.79 U      |
| trans-1,3-Dichloropropene        | NS                | 1.8 U       | 5.5 U       | 9 U         | 0.91 U      | 0.91 U      |
| Trichloroethene                  | 2                 | 4           | 1.3 U       | 2.1 U       | 0.21 U      | 0.21 U      |
| Trichlorofluoromethane           | NS                | 2.2 U       | 6.8 U       | 11 U        | 1.2         | 1.1 U       |
| Vinyl chloride                   | NS                | 0.2 U       | 0.62 U      | 1 U         | 0.1 U       | 0.1 U       |
| Xylene (total)                   | NS                | 47          | 78          | 130         | 40          | 3 U         |

† Dilution factor varies

**Table 3 Notes**  
**Portions of the American Museum of Natural History and Theodore Roosevelt Park**  
**New York, NY**  
Phase II Investigation Analytical Results

**GENERAL**

**NS** : No standard.

**U** : The analyte was not detected at the indicated concentration.

**U\*** : LCS or LCSD is outside acceptance limits.

**D** : Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

**SOIL VAPOR**

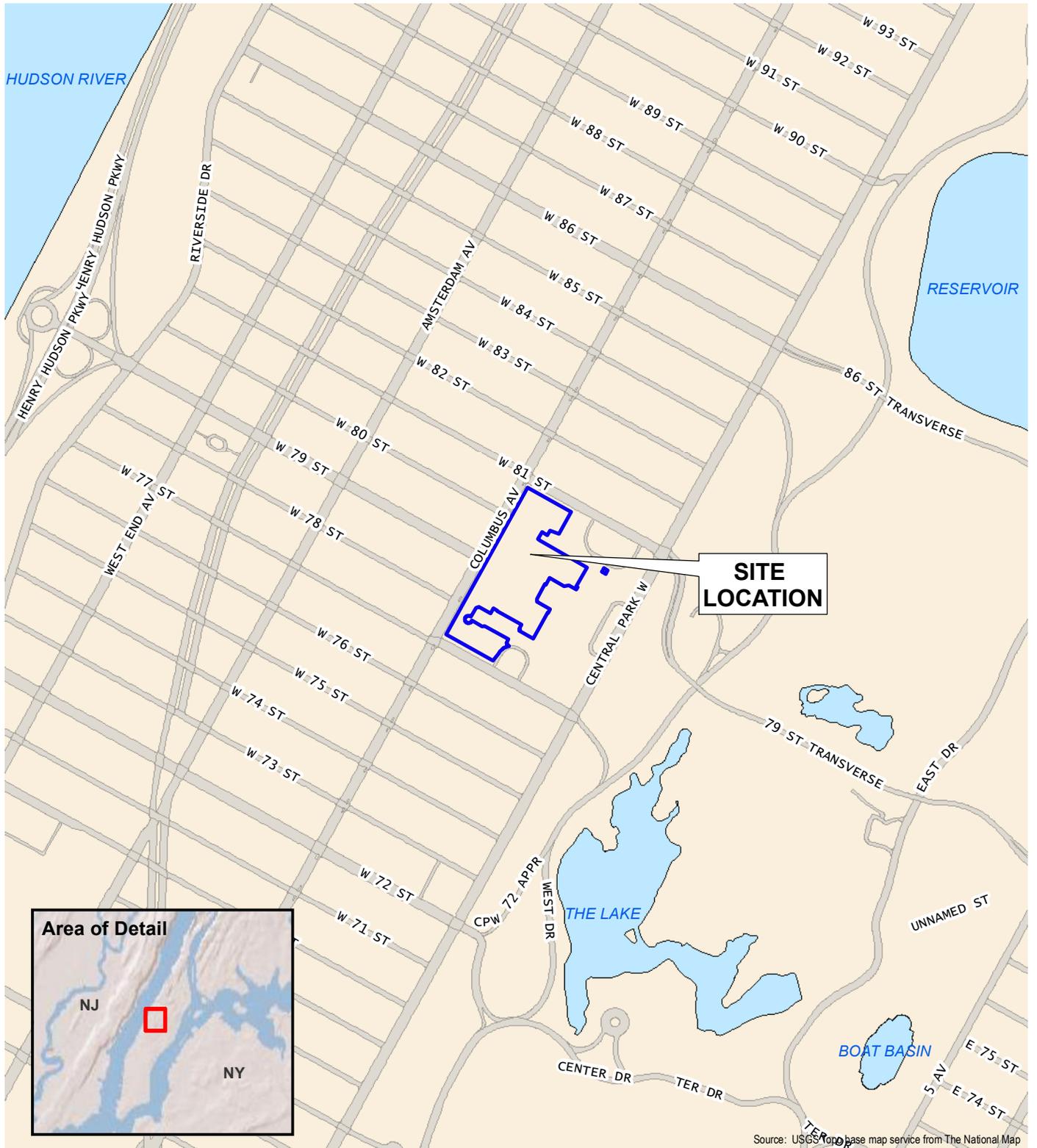
**NYSDOH**

**Soil Vapor Intrusion Air Guidance Value** : NYSDOH Air Guidance Values (AGVs) presented in the Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006 ("NYSDOH Vapor Intrusion Guidance Document"), updated September 2013 for change of AGV for PCE and August 2015 for TCE.

**µg/m<sup>3</sup>** : micrograms per cubic meter of air

**Exceedences of NYSDOH Soil Vapor Intrusion Air Guidance Values are highlighted in bold font.**

## FIGURES



Portions of the American Museum of Natural History  
and Theodore Roosevelt Park  
New York, New York



Environmental Consultants  
440 Park Avenue South, New York, N.Y. 10016

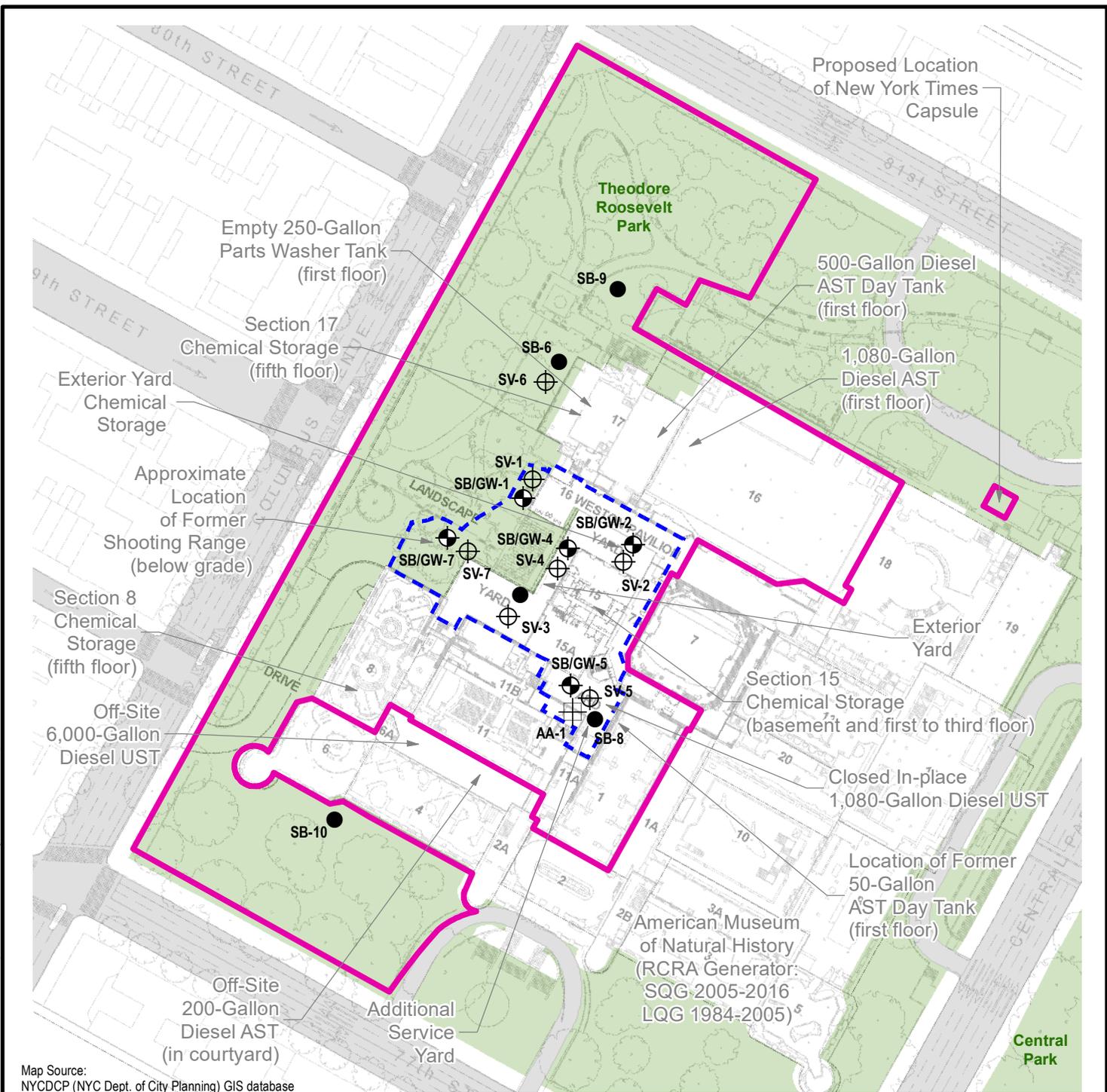
DATE  
**7/12/2017**

PROJECT No.  
**12166**

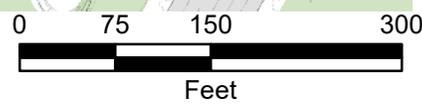
FIGURE  
**1**

**SITE LOCATION**

© 2017 AKRF, Inc. Environmental Consultants W:\Projects\12166-AMNH EXPANSION\Technical\GIS and Graphics\hazmat\12166 Fig 2 Site Plan & Sample Locations.mxd



Map Source: NYCDPC (NYC Dept. of City Planning) GIS database



**LEGEND**

- PROPOSED NEW BUILDING FOOTPRINT
- PROJECT SITE BOUNDARY
- SOIL BORING LOCATION
- SOIL/GROUNDWATER BORING LOCATIONS
- SOIL VAPOR SAMPLE LOCATION
- AMBIENT AIR SAMPLE LOCATION
- UST UNDERGROUND STORAGE TANK
- AST ABOVEGROUND STORAGE TANK



**Portions of the American Museum of Natural History and Theodore Roosevelt Park**  
New York, New York

**SITE PLAN & SAMPLE LOCATIONS**

**AKRF**  
Environmental Consultants  
440 Park Avenue South, New York, N.Y. 10016

|             |                  |
|-------------|------------------|
| DATE        | <b>7/12/2017</b> |
| PROJECT No. | <b>12166</b>     |
| FIGURE      | <b>2</b>         |

**APPENDIX A**  
**PREVIOUS ENVIRONMENTAL INVESTIGATIONS**



***Environmental and Planning Consultants***

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November 18, 2016

Susan E. Golden, Esq.  
Venable LLP  
Rockefeller Center  
1270 Avenue of the Americas, 24<sup>th</sup> Floor  
New York, NY 10020

Re: Phase I Environmental Site Assessment  
*American Museum of Natural History*  
*Portions of the American Museum of Natural History and Theodore Roosevelt Park*  
*New York, New York*  
*AKRF Project Number: 12166*

Dear Ms. Golden:

AKRF, Inc. is pleased to submit this Phase I Environmental Site Assessment Report for the above-referenced Phase I Site. This report includes the findings of a reconnaissance of the Phase I Site, and an evaluation of readily available historical information and selected environmental databases and electronic records. AKRF, Inc. met the requirements of American Society for Testing and Materials (ASTM) as established by ASTM Standard E1527-13, unless noted otherwise in Section 8.0: "Limitations and Data Gaps".

We appreciate the opportunity to provide you with our services. If you should have any questions, please do not hesitate to contact us.

Sincerely,  
AKRF, Inc.

A handwritten signature in black ink, appearing to read 'M. Godick'.

---

Marc S. Godick, LEP  
Senior Vice President

A handwritten signature in black ink, appearing to read 'Eric Park'.

---

Eric Park  
Technical Director

cc: E. Applebome, G. Holisko - AKRF  
Enc.

## EXECUTIVE SUMMARY

AKRF, Inc. (AKRF) was retained by the American Museum of Natural History (the Museum) to perform a Phase I Environmental Site Assessment of portions of the Museum comprising Sections 1, 7A, 8, 11, 11A, 11B, 15, 15A, 16, and 17, Weston Pavilion, the exterior yard and service yard, the former shooting range, and an approximately 76,000-square foot (SF) portion of Theodore Roosevelt Park, collectively referred to as the Phase I Site. The Phase I Site, along with the remainder of the Museum grounds and sections, is located at 200 Central Park West (also identified as Manhattan Tax Block 1130, part of Lot 1) and is located on New York City-owned mapped parkland under the jurisdiction of the New York City Department of Parks and Recreation (NYC Parks), as shown on Figure 1. The Phase I Site boundary is shown on Figure 2.

Uses within the Museum portions of the Phase I Site include public exhibition spaces and non-public spaces for the American Museum of Natural History. Non-public spaces include interior and exterior chemical storage spaces, aboveground storage tank (AST) rooms, outdoor underground storage tank (UST) areas, specimen storage areas, garages, offices, research spaces, libraries, educational-use spaces, and non-chemical storage areas. This Phase I Environmental Site Assessment was prepared to support the proposed construction of the Gilder Center, and related renovation and demolition, at the Museum, collectively referred to as the Project.

This Phase I Environmental Site Assessment was performed in conformance with ASTM Standard E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Practice*. Any exceptions to, or deletions from, the Standard are described in Section 8.0. The term “Recognized Environmental Condition” or REC means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a Phase I Site: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The Standard also includes definitions of Historic REC (HREC), Controlled REC (CREC), and *De Minimis* Condition. A *De Minimis* Condition is defined as an environmental concern that is not a threat to human health or the environment and would not be subject to enforcement action.

Historically, the Phase I Site was Museum-leased since approximately 1874. Historic Sanborn maps indicate that in 1902 the Phase I Site was primarily vacant with the exception of Section 1 located in the southeastern portion of the Phase I Site. Various additions were identified on Sanborn maps between 1912 and 2000, with Section 16 identified most recently on the 2007 Sanborn map. Throughout their history, the Phase I Site buildings were primarily used for exhibitions, research, maintenance, and educational purposes associated with the Museum. Sections 15 and 15A were identified as a storage structure and auto house on Sanborn maps dated 1951 through 1989. Though Sanborn maps indicate that Sections 15 and 15A were then used as a Power House and Boiler House through 1989, prior reports indicate that Sections 15 and 15A were converted to a garage in approximately 1933, and into the current Ichthyology Department space in approximately 1965. Section 17 historically housed a coal-fired electric power plant until the 1960s, when the Museum converted to alternating current.

Throughout its history, the Phase I Site was bounded to the north by West 81<sup>st</sup> Street, followed by residential areas; to the east by portions of the Museum outside of the Phase I Site boundary; to the south by West 77<sup>th</sup> Street, followed by residential and institutional uses; and to the west by Columbus Avenue, followed by multi-story residential and commercial buildings. Central Park and other portions of the Museum and Theodore Roosevelt Park were located east of the Phase I Site.

As part of the environmental review process for the proposed project, this Phase I ESA report and a Subsurface Investigation (Phase II) Work Plan would be submitted to the New York City Department of

Environmental Protection (DEP) for review and approval to evaluate any RECs identified as part of this assessment, as described below:

***Recognized Environmental Conditions (RECs)***

- Historic chemical storage and use at the Phase I Site that might represent RECs included:

Section 16 – One 1,080-gallon diesel fuel oil AST located within an epoxy-coated room with secondary containment berm;

Section 17 - One empty 250-gallon parts washer tank formerly containing trichloroethylene (TCE), and a 500-gallon double-wall AST day tank located on the first floor (associated with the AST located in Section 16); and

Exterior yard - Drums (up to 55 gallons) of ethanol, isopropanol, research space waste, and diesel in chemical storage sheds. Chemical storage sheds included secondary containment systems, and are regularly inspected to prevent spillage. Floor drains noted in the exterior yard and other areas throughout the Phase I Site were reported to be connected to the municipal sewer system but were in good condition with no evidence of releases or spills. Spill prevention kits were also identified in the drum storage area.

Regulatory databases identified the Museum as a small quantity generator (SQG) of hazardous waste from 2005 to 2016, and historical large quantity generator (LQG) of hazardous waste from 1984 to 2005. Chemical waste was disposed of by Clean Harbors, a permitted chemical waste hauler.

Although chemical storage areas are FDNY-permitted, with no evidence of a release noted on or concerning the Phase I Site, the locations of historical on-site use of chemicals (including chlorinated solvents) for specimen preservation and diesel fuel for Phase I Site operations and maintenance will be the subject of future Phase II subsurface investigation to evaluate whether there have been any impacts to subsurface conditions at the Phase I Site.

- The Museum is registered in the New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage (PBS) database with four ASTs and two USTs, with three ASTs and one UST located at the Phase I Site.

Although on-site storage tank controls, including secondary containment in the form of curbs or double-wall construction, interstitial alarms, high level alarms and BMS management were noted with no evidence of a release noted on or concerning the Phase I Site, the locations of historical on-site storage of fuel oil in USTs and ASTs will be the subject of future Phase II subsurface investigation to evaluate whether there have been any impacts to subsurface conditions at the Phase I Site.

- The historical uses of Section 17 (the Power House) included use as a coal-fired electric power plant and of Section 15 included use as an auto house and power house. During the reconnaissance, no evidence of coal storage or residue was observed and there is, therefore, no present information indicating that the Project is expected to be complicated by the former presence of the power house and auto house uses. These areas will be the subject of future Phase II subsurface investigation to evaluate whether there have been any impacts to subsurface conditions at the Phase I Site.

***De Minimis Conditions***

- Arsenic-preserved hide storage was noted in dedicated areas on the fifth floor of Section 1, and on the third floor of Section 7A. Arsenic-preservation was a common preservation technique for natural

history collections used between approximately 1930 and 1990. Preserved hides were stored in designated cabinets.

- The chemical storage area in Section 8 was noted on the fifth floor in an FDNY-permitted room with a secondary containment berm. Chemicals stored included 1 liter to 5 gallons in volume, of 1-butanol, ethyl alcohol, toluene, and other specimen preservation-related solvents, with no record of historic release.
- Chemical storage was noted in Section 11B on the lower level and fourth floors and included nitrate film negatives and acetate film roll storage.
- Chemical storage noted in Section 15 in the Ichthyology collections included approximately 300,000 small jars (up to five gallons) of specimens preserved in ethanol or isopropanol, large containers and drums (up to 55 gallons) of ethanol used for specimen preservation, and other containers (generally 15 gallons or less) of organic solvents, and solvent wastes.
- Additional chemical storage noted in Section 17 included small containers (up to one gallon) of polyester resins, spray paints, and acids in the exhibition production shop on the fifth floor.
- Additional chemical storage noted in the exterior yard included 55-gallon drums of food oil waste, and liquid nitrogen in a 3,000-gallon AST.
- A proposed 30,000-gallon UST was shown on 1962 engineering plans for Section 17 (the Power House). However, no documentation of the UST installation was found. Museum representatives do not believe the tank was installed, and the Museum was reported to have converted from coal to Consolidated Edison steam as a heating source around the time the plans were prepared; thus, it appears the proposed UST was never installed.
- One closed-in-place 1,080-gallon double-wall UST with interstitial monitoring and high-level alarm was identified in the Exterior Yard. This UST was associated with the former 50-gallon day tank AST identified in Section 1.
- The following petroleum storage tanks were located in Museum areas outside of the Phase I Site boundary: one in-service 6,000-gallon double-wall fiberglass reinforced plastic UST containing and one in-service 200-gallon double-wall AST, both containing diesel fuel and supplying an emergency generator. These tanks were located in a courtyard in the southwestern portion of the Museum, outside of the Phase I Site boundary. No odors, staining, or spills were noted in the vicinity of the AST and no related historic spills were documented.
- Based on the age of the Museum sections and prior subsurface investigations which identified historic fill in the northern portion of Theodore Roosevelt Park, historic fill materials may also be present beneath the Phase I Site.

#### ***Other Considerations (outside scope of ASTM Standard E1527-13)***

The following items were identified as part of the Phase I ESA and are considered outside of the ASTM Standard E-1527-13. Provided that the Museum continues to manage these items in accordance with applicable regulatory requirements, the following are not considered significant concerns.

- Based on the age of the Museum sections, asbestos-containing materials (ACM) may be present. Suspect ACM observed during the reconnaissance included: window glazing and caulking, drywall, plaster, vinyl floor tiles and associated mastic, ceramic tile mastic, suspended ceiling tiles, ventilation duct and thermal pipe insulation, and spray-on fireproofing, generally noted to be in good condition with the exception of surfaces within the former shooting range and some stairway walls within

Section 1. Museum representatives stated that the Phase I Site buildings had been surveyed for asbestos and an asbestos management plan was in place. Various abatement activities have been conducted as part of renovations and expansions, and reassessments are conducted prior to any construction activities.

- Based on the age of the Museum sections, lead-based paint may be present in any areas which were not recently renovated. Painted surfaces were generally noted to be in good condition with the exception of surfaces within the below-grade former shooting range and some stairway walls within Section 1.
- Based on the age of the Museum sections, any window caulking, electrical equipment, hydraulic equipment, or fluorescent lighting fixtures installed prior to 1979 may contain PCBs. Any fluorescent bulbs and switches may also contain mercury. No obvious leaks or odors were observed in connection with observed equipment or lighting fixtures in viewed accessible areas.

### ***Potential for Vapor Migration***

Due to the use and storage of chemicals on the Phase I Site, a potential for subsurface vapor intrusion may exist. Following any future subsurface testing, potential vapor mitigation of existing or future buildings would be assessed.

### ***Conclusions***

Although chemical storage areas are maintained as required, the Museum employs protective measures against releases, and there has been no evidence of a release noted on or concerning the Phase I Site, the locations of historical on-site storage of chemicals and fuel oil, as well as the location of the historical use of Section 17 (the Power House) as a coal-fired electric power plant and Section 15 as an auto house and power house, will be the subject of future Phase II subsurface investigation to evaluate whether there have been any impacts to subsurface conditions at the Phase I Site.

Prior to commencing development activities involving significant subsurface disturbance, a Phase II subsurface investigation, including soil, groundwater and soil vapor sampling and an inspection of the drain in the chemical storage yard, would be conducted to assess subsurface conditions at the Phase I Site.

During any subsurface disturbance, surplus excavated soil and debris would be handled and disposed of in accordance with applicable regulatory requirements. Evidence of a spill (if any) located or found during future investigation or disturbance would be reported to NYSDEC and addressed in accordance with applicable requirements. If subsurface investigation findings indicate that potential vapor intrusion concerns exist, the potential inclusion of vapor mitigation measures, including vapor barriers and sub-slab venting systems, would be evaluated.

If the conclusions of the Phase II investigation indicate any condition that would require a Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP), then prior to the start of the proposed development work, a RAP and CHASP would be prepared and submitted to the NYCDEP for review and approval, which would summarize all environmental mitigation measures designed to protect against the potential for human or environmental exposure to known or unexpectedly encountered hazardous materials during and following construction of the proposed development. The RAP and CHASP would be implemented throughout the duration of project construction.

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**FIGURES**

- Figure 1 - Phase I Site Location  
Figure 2 - Phase I Site Detail

**APPENDICES**

- Appendix A - Photographic Documentation  
Appendix B - Historical Sanborn Maps  
Appendix C - Regulatory Records Review  
Appendix D - Local Records  
Appendix E - City Directories

## 1.0 INTRODUCTION

AKRF, Inc. (AKRF) was retained by the American Museum of Natural History (the Museum) to perform a Phase I Environmental Site Assessment of portions of the Museum comprising Sections 1, 7A, 8, 11, 11A, 11B, 15, 15A, 16, and 17, Weston Pavilion, the exterior yard and service yard, former shooting range, and an approximately 76,000-square foot (SF) portion of Theodore Roosevelt Park, collectively referred to as the Phase I Site. The Phase I Site, along with the remainder of the Museum grounds and sections, is located at 200 Central Park West (also identified as Manhattan Tax Block 1130, part of Lot 1) and is located on New York City-owned mapped parkland under the jurisdiction of the New York City Department of Parks and Recreation (NYC Parks), as shown on Figure 1. The Phase I Site boundary is shown on Figure 2.

Uses within the Museum portions of the Phase I Site include public exhibition spaces and non-public spaces for the American Museum of Natural History. Non-public spaces include interior and exterior chemical storage spaces, aboveground storage tank (AST) rooms, outdoor underground storage tank (UST) areas, specimen storage areas, garages, offices, research spaces, libraries, educational-use spaces, and non-chemical storage areas. This Phase I Environmental Site Assessment was prepared to support the proposed construction of the Gilder Center, and related renovation and demolition, at the Museum, collectively referred to as the Project.

The scope of services for this assessment was in conformance with ASTM Standard E1527-13 (*Standard Practice for Environmental Site Assessments: Phase I ESA Practice*). Any exceptions to, or deletions from, this practice are described in Section 8.0. The scope included the following:

- Observations of the Phase I Site (reconnaissance) to identify potential sources or indications of hazardous substances, including: aboveground storage tanks (ASTs); underground storage tanks (USTs); tank vents and fill ports; transformers and other items that could contain polychlorinated biphenyls (PCBs), drums or areas where hazardous materials were used, stored, or disposed; stained surfaces and soils; stressed vegetation, leaks, odors. In addition, neighboring properties were viewed, but only from public rights-of-way, to identify similar concerns.
- Readily available geological and groundwater (hydrogeological) information was evaluated to assist in determining the potential for contamination migration (including in soil, soil vapor, and/or groundwater) within, from, and onto the Phase I Site.
- The reconnaissance of the Phase I Site included observation of any readily visible suspect asbestos-containing materials (ACMs) and potential lead-based paint. However, no samples were collected or analyzed and this reconnaissance provides neither definitive nor exhaustive information.
- A state database of county-level radon concentrations was used to determine typical indoor radon levels and compare them to United States Environmental Protection Agency (USEPA) guidelines.
- Historical fire insurance maps for the Phase I Site and nearby sites were reviewed to evaluate historical land uses.
- The following federal regulatory databases were reviewed to determine the regulatory status of the Phase I Site and other Phase I Site within the ASTM-defined radii: National Priority List (NPL); Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS); Emergency Response Notification System (ERNS); Toxic Release Inventory System (TRIS); the Permit Compliance System of Toxic Wastewater Discharges (WWD); the Air Discharge Facilities Index (ADF) and the USEPA Civil Enforcement Docket. The federal listing of facilities which are subject to corrective action under the Resource Conservation and Recovery Act (CORRACTS) is discussed with the State databases of RCRA listings.

- The following state regulatory databases were reviewed to determine the regulatory status of the Phase I Site and other properties within predetermined radii: petroleum and hazardous material spills (SPILLS); Resource Conservation and Recovery Act Notifiers (RCRA); Chemical Bulk Storage (CBS); Solid Waste Facilities (SWF); Petroleum Bulk Storage (PBS); State Inactive Hazardous Waste Disposal Sites (SHWS); Hazardous Substance Disposal Site Draft Study; Hazardous Waste Treatment, Storage or Disposal Facilities; Major Oil Storage Facilities (MOSF); Brownfield Cleanup Program (BCP); and Historic Utility Sites.
- Local agency reviews including NYC Fire Department records (obtained as part of the database search), online Buildings and Finance Departments records, and Environmental Quality Review (CEQR) E Designation Sites were conducted for the Phase I Site only.

## 2.0 PHYSICAL SITE DESCRIPTION

On June 3, 2016, AKRF conducted a reconnaissance of the Phase I Site accompanied by the Museum's Senior Director of Human Resources and Environmental, Health and Safety, who answered pertinent questions. Additional inspections were conducted on July 17, 2015 with the Senior Director of Human Resources and Environmental, Health and Safety, on March 18, 2016 with a member of the Museum's Facilities Operations Department, and on October 25, 2016 with the Senior Director of Human Resources and Environmental, Health and Safety. Neighboring properties were also viewed, but only from public rights-of-way. On June 3, 2016, the weather was cloudy and approximately 80 °F, the visibility was good, and the premises were generally adequately illuminated. Photographs from the reconnaissance are included as Appendix A. The Phase I Site boundary is indicated on Figure 2.

### 2.1 General Site Conditions

The Phase I Site consisted of portions of Museum Sections 1, 7A, 8, 11, 11A, 11B, 15, 15A, 16, 17, Weston Pavilion, the exterior yard and additional service yard, the former shooting range, and an approximately 200,000-SF portion of Theodore Roosevelt Park. The Phase I Site primarily comprised public exhibition spaces and non-public spaces for the American Museum of Natural History. Non-public spaces included interior and exterior chemical storage spaces, research space with a former parts washer, AST rooms, outdoor UST areas, specimen storage areas, garages, offices, educational-use spaces, libraries, and non-chemical storage areas.

Museum construction comprised brick and CMU block construction, with finishing materials including stone, concrete, sheetrock, plaster, paint, 12- by 12-inch floor tiles, suspended ceiling tiles, carpeting, and exposed spray fireproofing and piping insulation. The finishing materials in the inspected areas were generally observed to be in good condition.

Building materials were in good condition with isolated areas containing peeling paint or water damage. Phase I Site buildings were illuminated by fluorescent and incandescent lights, served by electrical and hydraulic elevators, and heated by steam provided by Consolidated Edison (Con Ed). A description of the Phase I Site Sections and any areas with significant chemical storage or would otherwise be likely to impact the findings and recommendations presented within this report are discussed in further detail below.

#### Section 1

Section 1 comprised a five-story (plus lower level) structure primarily used as Museum exhibition and research spaces. A generator room was noted on the lower level. According to the Senior Director of Human Resources, a former 50-gallon AST day tank was located in the generator room until September 2016, when it was emptied and removed. Arsenic-preserved animal hides

were noted in a dedicated area on the fifth floor. Arsenic-preservation was a common preservation technique used between approximately 1930 and 1990. The development plan for Section 1 comprises selective demolition of the structure.

#### Section 7A

Section 7A comprised a three-story (plus lower level) structure used as Museum research and exhibition spaces. Arsenic-preserved animal hides were noted in a dedicated area on the third floor. The development plan for Section 7A comprises selective demolition of the structure.

#### Section 8

Section 8 comprised a five-story (plus lower level) structure primarily used as Museum exhibition and research spaces. A chemical storage closet, containing 1 liter to 5-gallon containers of 1-butanol, ethyl alcohol, toluene, and other specimen preservation-related solvents, and an emergency shower and eye wash station, were located in a fifth floor storage room, fitted with a secondary containment curb. According to Museum personnel, the storage room is permitted by the New York City Fire Department (FDNY), and no spills were reported within the space. The development plan for Section 8 comprises selective demolition on all floors except the fourth and fifth floors.

#### Former Shooting Range – North-adjacent to Section 8

The former shooting range space comprised an approximately 1,200-SF L-shaped, brick and mortar constructed space, located north-adjacent to Section 8 and extending underneath the western landscaped portion of Theodore Roosevelt Park. The former shooting range was predominantly vacant with some storage of miscellaneous unused items such as shelving and small wooden furniture.

Utilities located in the space included overhead and wall-mounted mechanical piping with paint and insulation, and overhead light fixtures, most of which appeared unused and in poor condition. Based on feedback from the Senior Director of Human Resources and Environmental, Health and Safety, the space was used as a shooting range in approximately 1940 and subsequently used as a storage space for rock specimens, some of which were identified as naturally radioactive, until the 2000s, when the contents of the space were relocated to portions of the Museum outside the Phase I Site boundary. Based upon licensing and storage procedures, residual radiation from previous specimen storage is not anticipated to be a concern.

#### Section 11

Section 11 comprised a five-story (plus lower level) structure primarily used as Museum exhibition spaces, and library and research spaces with no significant chemical storage areas. The development plan for Section 11 comprises selective demolition on floors two, three, and four.

#### Section 11A

Section 11A comprised a two-story (plus lower level) structure primarily used as office and educational spaces with some cleaning chemical storage noted on the first floor and no other significant chemical storage areas. The development plan for Section 11A comprises selective demolition on both floors.

#### Section 11B

Section 11B comprised a four-story (plus lower level) structure primarily used as Museum rare books library and exhibition spaces, with some nitrate film negatives and acetate film roll storage on the lower level and fourth floor, respectively. Neither of the film storage areas comprise

significant chemical storage, and no other significant chemical storage areas were present in Section 11B. The development plan for Section 11B comprises selective demolition on floors two and four.

#### Section 15 Ichthyology Building

Section 15 comprised a three-story (plus lower level) structure used as Ichthyology Department specimen rooms, mechanical rooms, and Department of Gems and Minerals storage in the lower level, two Ichthyology research spaces on the first floor, and Ichthyology Department offices and specimen rooms on the second and third floors. The development plan for Section 15 comprises selective demolition of the structure.

Chemical storage in the Section 15 included: approximately 300,000 small jars (up to five gallons) of specimens preserved in ethanol or isopropanol; large containers and drums (up to 55 gallons) of ethanol used for specimen preservation; and small containers (generally 15 gallons or less) of rotenone (a piscicide stored on-site designated for off-site use only), organic solvents, and solvent wastes. All containers were noted to be clearly labeled and neatly stored, with no evidence of a release and no records of releases according to Museum representatives. According to the Senior Director of Human Resources and Environmental, Health and Safety, all chemical storage areas within Section 15 are FDNY-permitted spaces, and all Section 15 chemicals will be moved to a location outside of the Phase I Site boundary prior to development.

#### Section 15A

Section 15A comprised a one story structure primarily used as Museum storage and mechanical spaces with no significant chemical storage areas. The development plan for Section 15A comprises selective demolition of the structure.

#### Section 16

Section 16 comprised a three-story structure primarily used as a parking garage and outdoor recreation space. The development plan for Section 16 includes limited alteration of the structure.

A 1,080-gallon diesel AST was noted in a dedicated room in Section 16, adjacent to the parking garage space. The AST room was finished with an epoxy coating, creating a secondary containment space around the tank. A small cleanout cover was noted in the southeastern corner of the tank room. According to the Senior Director of Human Resources and Environmental, Health and Safety, the AST is equipped with an overfill alarm connected to the Museum's Building Management System (BMS) as well as to a monitoring panel located in Section 17.

#### Section 17 Former Power House

Section 17 comprised a five-story (plus lower level) structure used as mechanical rooms in the lower level, science research spaces on the first floor, storage and event space and offices on the second and third floors, and an exhibition production shop and Exhibition Department offices on the fifth floor. The development plan for Section 17 comprises selective demolition of the structure.

A 500-gallon double-wall day tank associated with the 1,080-gallon AST, located in Section 16, was identified in a tank room on the first floor. According to the Senior Director of Human Resources and Environmental, Health and Safety, the 500-gallon day tank is connected to the BMS, and conveyance piping from the 1,080-gallon AST to the 500-gallon day tank comprises double-wall piping, pitched towards the 1,080-gallon tank.

Chemical storage in Section 17 included an empty 250-gallon parts washer tank formerly containing trichloroethylene (TCE), used for degreasing within a research space and parts washer room area. According to the Senior Director of Human Resources and Environmental, Health and Safety, the parts washer tank formerly containing TCE was permitted for air discharges and is located in a FDNY-permitted research space with no record of spills or releases. The tank was emptied in October 2016, and TCE was handled on-site and disposed of off-site in accordance with all local, state, and federal requirements. Additional chemical storage in Section 17 included small containers (generally five gallons or less) of formalin and organic solvents used for conservation of specimens. The exhibition production shop contained some chemical storage, including small containers (up to one gallon) of polyester resins, spray paints, and acids. All containers were noted to be clearly labeled and neatly stored, with no evidence of a release or records of releases according to Museum personnel.

According to the Senior Director of Human Resources and Environmental, Health and Safety, the parts washer was installed in 1999 and has not been used since 2008. During the inspection, the parts washer was observed to be in good condition with no indication of damage or breaches that may have resulted in leaks. Minimal oil-like staining was noted in a secondary containment area underneath the parts washer that housed washer-related motors and pumps. A floor drain was noted, reported to be connected to the combined sewer, in the center of the parts washer room, with no indications of recent releases.

#### Weston Pavilion

Weston Pavilion comprised a two-story structure, primarily used as Museum lobby and ticket sales space with no significant chemical storage areas. The development plan for Weston Pavilion comprises selective demolition of the structure.

#### Exterior Yard with Chemical Storage Yard and Additional Service Yard

An exterior yard with a fence-enclosed chemical storage yard was noted in an approximately 1,000-SF area in the center of the Phase I Site (adjacent to Sections 7A, 15, and 16). The chemical storage yard, located in the northeastern portion of the exterior yard, contained three chemical storage sheds, and an empty drum storage area with an emergency shower, eye wash station, spill kit, and fire extinguisher. The chemical storage sheds comprised modified, elevated shipping containers, which provide covered, secondary containment. Chemicals stored in the sheds included 55-gallon drums of ethanol, gasoline, isopropanol, and diesel, and 55-gallon drums and one-gallon containers of various chemicals from the Museum research spaces. According to the Senior Director of Human Resources and Environmental, Health and Safety, all three sheds are FDNY-permitted with no records of historic releases. The sheds will be relocated outside of the Phase I Site boundary prior to development work.

Two 55-gallon drums of yellow grease (used cooking oil) were noted in the exterior yard outside of the chemical storage area, elevated above the ground on a containment pallet with a protective cover.

A 3,000-gallon liquid nitrogen tank, protected by bollards, was noted on the southern end of the exterior yard. According to the Senior Director of Human Resources and Environmental, Health and Safety, the liquid nitrogen tank is FDNY-permitted with no records of historic releases. The tank will be relocated outside of the Phase I Site boundary prior to development work.

Utilities noted in the area comprised a minimum of three chemical storage yard drains, two exterior yard trench drains, three sewer-related manhole covers, additional manways in the exterior yard, and two approximately 2-foot diameter steam heating pipes extending from the

subgrade into the south-adjacent Section 15. The subgrade portions of the steam heating pipes were noted extending north-south underneath a portion of the concrete pavement, visible through a cracked area in the pavement. Yard drains were not fitted with secondary containment, but the spill kit contained drain covers and booms for deployment in the event of a release. No evidence of a release was observed in the sheds or the surrounding service yard.

A second lower-level service yard was located south-adjacent to Section 15A, and was connected to the exterior yard by a passageway. This additional service yard contained a concrete pad with an access port at the location of a closed-in-place 1,080-gallon diesel UST for an emergency generator. This UST was registered with the New York State Department of Environmental Conservation (NYSDEC) as closed in-place, which was confirmed by Museum representatives. No closure documents or further evidence regarding the UST were obtained during the preparation of this report. However, the Senior Director of Human Resources and Environmental, Health and Safety confirmed that the tank was a double-wall tank with interstitial and high-level alarm monitoring installed in 1989, and was closed in place in 2010 by filling with concrete. An associated 50-gallon day tank historically supplied by the UST was formerly located in a generator room in Section 1. The 50-gallon AST was registered with NYSDEC as being in-service, but was emptied and removed in September 2016.

#### Theodore Roosevelt Park

Outdoor portions of the Phase I Site included landscaped areas and stone tile-paved sidewalks, which comprised portions of the approximately 200,000-SF portion of Theodore Roosevelt Park. The Project includes an approximately 1,500 SF work area north of Section 18, as shown on Figure 2, to relocate the New York Times Capsule sculpture from its current location (south-adjacent to Section 16) to the outdoor area north-adjacent to Section 18. The proposed plan for the sculpture relocation comprises extending the terrace on the east side of the entrance pathway to Section 18 to create a level platform for sculpture. Some minimal landscaping would be involved during the relocation of the sculpture.

All paving and landscaping in the portions of Theodore Roosevelt Park within the Phase I Site boundary were observed to be in good condition, with no odors, staining, or stressed vegetation noted.

Chemical waste was disposed of by Clean Harbors, a permitted chemical waste hauler. Universal waste was stored in the northern portion of the exterior yard, and was disposed of by Action Carting, a private hauler.

## **2.2 Topography and Hydrogeology**

The surface topography slopes slightly down to the south-southwest towards the Hudson River. Based on the U.S. Geological Survey (USGS) Central Park Quadrangle map, the Phase I Site is approximately 85 to 90 feet above the North American Vertical Datum (NAVD) of 1988, an approximation of mean sea level. Based on USGS mapping, depth to bedrock in the vicinity of the Phase I Site is anticipated to be highly variable (approximately 5 to 35 feet below grade). The Final Environmental Impact Statement (FEIS) for the Planetarium and Northside Project, prepared by AKRF in September 1996 stated that a subsurface investigation was conducted in the northern and western portions of Theodore Roosevelt Park to determine whether hazardous materials at the Museum could pose a problem for proposed construction activities.

The investigation identified no significant evidence of subsurface contamination. The investigation results identified the presence of fill material throughout the investigation area;

however, the depth of the fill layer was not specified. Similarly, fill materials may be present beneath the Phase I Site.

The 1996 FEIS also stated that groundwater was encountered between approximately 20 to 30 feet below grade; however, shallower groundwater perched on bedrock may be present. Groundwater is anticipated to flow in a southwesterly direction toward the Hudson River (approximately 3,200 feet west of the Phase I Site). Actual water table depth and groundwater flow direction can be affected by many factors including the A/B/C/D Line subway tunnels approximately 450 feet east of the Phase I Site (east-adjacent to the Phase I Site superblock beneath Central Park West), other subsurface features or obstructions such as basements or utilities, and other factors beyond the scope of this assessment. Groundwater in Manhattan is not used as a source of potable water.

## 2.3 Storage Tanks

### 2.3.1 Underground Storage Tanks (USTs)

A concrete pad associated with one 1,080-gallon diesel UST was located on-site in a service yard south-adjacent to Section 15A. According to the Senior Director of Human Resources and Environmental, Health and Safety, the tank was a double-wall tank with interstitial and high-level alarm monitoring installed in 1989, and was emptied, and closed in place by filling with concrete in 2010. The UST was registered with the NYSDEC under PBS Facility ID 2-611190. NYSDEC records indicated that the 1,080-gallon UST was installed in 1989 and closed in place in 2001. Museum staff indicated that the PBS listing will be updated to reflect the correct closure date of 2010.

A 1996 Final Environmental Impact Statement (FEIS) for Hayden Planetarium and North Side Project, summarized in Section 7.0, noted 1962 engineering plans that indicated the proposed installation of a 30,000-gallon UST in Section 15. However, no further documentation of the tank installation was found, and Museum representatives were unaware of the tank at the time of the Phase I Site inspection. The engineering plans were reported to correspond to the period when the Museum converted from coal to Con Ed steam as a heating source; thus, it is possible the proposed UST was not installed.

The portions of the Museum outside of the Phase I Site boundary were identified with one in-service 6,000-gallon diesel UST, Tank #1, used to fuel an emergency generator located in a service yard in the southwestern corner of the Museum. The fill port for this UST was located near the generator. No odors, staining, or spills were noted near the fill ports. The UST was registered with the NYSDEC under PBS Facility ID 2-611190. NYSDEC records indicated that the 6,000-gallon UST was installed in 2005. According to the Senior Director of Human Resources and Environmental, Health and Safety, the 6,000-gallon UST was double-walled fiberglass reinforced plastic construction, equipped with an overfill alarm, connected to the BMS, and has no records of related historic releases.

The Museum provided a Notice of Violation dated May 2, 2013, from the NYSDEC indicating that an inspection of the 6,000-gallon diesel UST (Tank #1) revealed evidence of product in the tank (top) sump. NYSDEC recommended that the discharge within the sump be cleaned up to its satisfaction and measures be taken to eliminate this concern in the future. In an email dated May 24, 2013, the Senior Director of Human Resources and Environmental, Health and Safety stated that the spill was cleaned up and disposed of through the Museum's private waste hauler. Piping was cleaned and repaired to prevent

future leaks, and then confirmed that there was a proper seal. NYSDEC approved the clean-up and repair measures, and subsequently closed the violation.

Other off-site USTs are discussed in Section 5.2.2.

### **2.3.2 Aboveground Storage Tanks (ASTs)**

One in-service 1,080-gallon diesel AST, Tank #3, was noted in Section 16, adjacent to the parking garage space. A 500-gallon diesel AST, located in Section 17, was used as a day tank for the 1,080-gallon diesel AST in Section 16. The AST and day tank were used to fuel an emergency generator.

A former 50-gallon diesel AST (day tank) historically supplied by the on-site 1,080-gallon diesel UST was located on-site in a generator room in the lower level of Section 1. According to the Senior Director of Human Resources and Environmental, Health and Safety, the 50-gallon diesel AST was emptied and removed in September 2016.

An empty 250-gallon AST formerly containing TCE was also noted in Section 17, which was historically used as a parts washer.

One 3,000-gallon liquid nitrogen AST was noted in the exterior yard, protected by bollards.

Portions of the Museum located south-adjacent to the Phase I Site were identified with one additional in-service 200-gallon diesel AST in the regulatory database. According to the Senior Director of Human Resources and Environmental, Health and Safety, the 200-gallon AST is connected to the 6,000-gallon UST identified in the Museum, outside of the Phase I Site boundary. The 200-gallon AST is double-walled, with a product level gauge connected to the BMS. According to the Senior Director of Human Resources and Environmental, Health and Safety, there is no record of historic releases related to this AST. Other off-site ASTs are discussed in Section 5.2.2.

The ASTs were registered with the NYSDEC under PBS Facility ID 2-611190. NYSDEC records indicated that the on-site 1,080-gallon diesel AST was installed in 2004, the associated 500-gallon diesel AST day tank was installed in 1997, the on-site 50-gallon AST was installed in 1988, and the off-site 200-gallon diesel AST was installed in 2005. All ASTs were registered as being in service. According to the Senior Director of Human Resources and Environmental, Health and Safety, the PBS registration will be updated to list the on-site 1,080-gallon UST and associated 50-gallon AST as closed in place in 2010 and closed-removed in 2016, respectively.

As required by the applicable US Environmental protection Agency (EPA) regulatory thresholds, an Oil Spill Prevention Control and Countermeasure Plan (Oil SPCC Plan) was adopted. The goal of the Oil SPCC Plan is to implement containment measures to prevent oil spills into navigable waters. Additionally, the plan outlines inspection, testing, and preventative maintenance procedures, employee training for those involved with the use, storage, or management of oil, and spill response procedures.

## **2.4 Polychlorinated Biphenyls (PCBs) and Mercury**

Until 1979, polychlorinated biphenyls (PCBs), which provided beneficial insulating, were used in a variety of products, in particular electrical equipment such as transformers, capacitors, fluorescent light fixtures, and voltage regulators, but also in hydraulic fluids and some other products such as caulking.

Based on the age of the Museum buildings, window caulking, electrical equipment, and/or fluorescent lighting fixtures, light bulbs and switches may contain PCBs and/or mercury. Two hydraulic elevators were located in Section 15 and may contain PCBs. No hydraulic oil storage or staining was noted in the elevator mechanical rooms or in any on-site spaces inspected during the reconnaissance.

## 2.5 Lead-Based Paint

After 1977, the use of lead-based paint inside commercial structures was restricted and its use elsewhere became less common, but lead-based paint may still sometimes be used outdoors. Lead-based paint can present a hazard, particularly to children, especially when it is in poor condition.

Painted surfaces were observed to be generally in good condition in the viewed accessible areas with the exception of surfaces within the former shooting range and some stairway walls within Section 1.

Activities (such as renovation or demolition) with the potential to disturb lead-based paint are subject to a variety of requirements, including US Occupational Safety and Health Administration regulation 29 CFR 1926.62 (Lead Exposure in Construction).

## 2.6 Utilities

Con Ed provides natural gas, steam, and electricity to the Phase I Site and surrounding area. The Phase I Site is connected to the municipal water and sewer systems.

## 2.7 Waste Management and Chemical Handling

Universal and commercial trash generated by the Museum was stored in approximately 30-cubic yard trash containers located in the exterior yard, pending disposal by Action Carting, a private hauler. The commercial trash storage area appeared to be in good condition. Floor drains were noted throughout the service yard, including the chemical storage shed area in the yard's northeastern corner. Though the drains were reported to be connected to the municipal sewer system, the drains were in good condition with no evidence of releases or spills. In addition, chemical storage sheds are maintained with secondary containment, and spill prevention kits were identified in the adjacent drum storage area.

Chemical storage at the Phase I site included:

Section 8 - Containers, 1 liter to 5 gallons in volume, of 1-butanol, ethyl alcohol, toluene, and other specimen preservation-related solvents;

Section 15 - Approximately 300,000 small jars (up to five gallons) of specimens preserved in ethanol or isopropanol, large containers and drums (up to 55 gallons) of ethanol used for specimen preservation, and small containers (generally 15 gallons or less) of rotenone (a piscicide stored on-site designated for off-site use only), organic solvents, and solvent wastes;

Section 16 – One 1,080-gallon diesel fuel oil AST with secondary containment;

Section 17 - One empty 250-gallon tank formerly containing TCE and small containers (up to 5 gallons) of formalin in a research space, small containers (up to one gallon) of polyester resins, spray paints, and acids in the exhibition production shop on the fifth floor, and a 500-gallon double-wall AST day tank (associated with the AST located in Section 16).

Exterior yard - Drums (up to 55 gallons) of ethanol, isopropanol, research space waste, food oil waste, and diesel in chemical storage sheds, and liquid nitrogen in a 3,000-gallon AST. Each

storage shed was equipped with a dedicated secondary containment system and a spill prevention kit was located in an adjacent area.

A Risk Management Plan (RMP) was established for the Museum, as required by NYC Local Law 92. Local Law 92 requires that facilities with certain hazardous substances or regulated toxic substances above federally determined levels prepare and submit a RMP to the NYCDEP. It was determined that the only such hazardous substance listed in the applicable NYCDEP regulations present on the Museum's property above its threshold planning quantity, was sulfuric acid, which was reported at a quantity of 22,050 pounds. According to the RMP, most sulfuric acid was contained in lead-acid batteries and generators; however, no single process or equipment contained over 1,000 pounds of sulfuric acid at a given time. The RMP outlined specific procedures in the event of a release of sulfuric acid, employee training, and the names and phone numbers of designated personnel to contact in the event of a spill.

The Museum provided an Air Facility Registration Certificate issued by the NYSDEC, which permits the Museum to operate under a minor facility registration for the use of a batch vapor TCE degreaser and a spray painting booth located in Section 17. Both sources of air emissions were not identified in 6 New York Codes, Rules, and Regulations (NYCRR) Part 201-3 as being exempt or trivial activities. This certificate was issued in February 2009 and did not have an expiration date.

## 2.8 Radon

Radon is a colorless, odorless gas most commonly produced by the natural radioactive decay of certain rocks. According to a New York State Department of Health database dated January 2016, the average level of radon found in Manhattan is 2.1 picocuries/liter in basements and 2.79 picocuries/liter on first floors, below the USEPA recommended action level of 4.0 picocuries/liter.

## 3.0 ASBESTOS-CONTAINING MATERIALS (ACM)

Asbestos refers to a group of natural minerals that provide good fire resistance and insulation. Asbestos is also commonly found in vinyl flooring, plaster, sheetrock, joint compound, ceiling tiles, roofing materials, gaskets, mastics, caulks and other products. Materials containing more than one percent asbestos are considered asbestos-containing materials (ACM). ACM are classified as either friable (e.g., more readily release fibers, such as most spray-applied fireproofing) or non-friable (such as floor tiles).

Suspect ACM observed during the reconnaissance included: window glazing and caulking, drywall, plaster, vinyl floor tiles and associated mastic, ceramic tile mastic, suspended ceiling tiles, ventilation duct and thermal pipe insulation, and spray-on fireproofing, generally in good condition in the viewed accessible areas with the exception of surfaces within the former shooting range and some stairway walls within Section 1. ACM may be present in other locations within the Phase I Site boundary which were not accessible during the reconnaissance, such as inside walls and above ceilings. The Senior Director of Human Resources and Environmental, Health and Safety stated that the Phase I Site buildings have been surveyed for asbestos, and that asbestos was abated during previous construction activities. Additionally, an Asbestos Management Plan was in place to outline procedures for managing ACM during renovations, improvements, and general maintenance conducted at the Museum. This reconnaissance is for a Phase I assessment and as such does not constitute or substitute for an asbestos survey, which includes comprehensive inspection and material sampling with laboratory testing.

Regulatory requirements for ACM (or suspect ACM until proven not to be ACM) include maintenance requirements and, prior to any renovation or demolition, inspection/sampling by a NYC-certified asbestos investigator to determine whether the project will disturb ACM. Any such ACM (and any other ACM subsequently identified) must be removed prior to renovation or demolition.

## 4.0 ADJACENT LAND USE

The Phase I Site was bounded to the north by West 81<sup>st</sup> Street, followed by multi-story residential buildings; to the east by the off-site portion of the Museum; to the south by West 77<sup>th</sup> Street, followed by multi-story residential buildings and the New York Historical Society; and to the west by Columbus Avenue, followed by mixed-use buildings. The surrounding blocks were occupied primarily by commercial, residential, and institutional uses, including schools and religious facilities. Central Park was located east-adjacent to the Phase I Site superblock. The A/B/C/D Line subway tunnel was located approximately 450 feet east of the Phase I Site beneath Central Park West.

## 5.0 PHASE I SITE HISTORY AND RECORDS REVIEW

### 5.1 Prior Ownership and Usage

#### 5.1.1 Historical Land Use maps

Historical maps and documents were reviewed for indications of uses (or other evidence) suggesting hazardous material generation, usage or disposal on or near the Phase I Site. Specifically, Sanborn Fire Insurance Maps from 1902, 1912, 1951, 1976, 1989, and 2007, included as Appendix B, were reviewed.

#### 1902

A majority of the Phase I Site was shown as vacant land with an outline labeled “projected buildings” (presumably related to proposed Museum expansions). An unidentified building was shown in the southeastern portion of the Phase I Site, currently identified by the Museum as Section 1.

The Phase I Site block comprised off-site portions of the Museum. A lecture hall, stage, and gallery were noted in the central portion of the Museum. The remainder of the block featured outlines of proposed buildings. The surrounding area was mixed-use, and developed predominantly with unlabeled three- to five-story buildings. The New York Geographical Society, Hamilton Institute, and Hotel Beresford were noted on the north-adjacent block. Central Park was noted east-adjacent to the Phase I Site block. Schools and religious institutions were also noted west of the Phase I Site. Hotel Endicott, a synagogue, and builder’s yard were noted northwest of the Phase I Site. A railroad station was noted northwest of the Phase I Site at the intersection of Columbus Avenue and West 81<sup>st</sup> Street.

#### 1912

Two adjoined unidentifiable buildings were noted in the central portion of the Phase I Site, currently identified by the Museum as Sections 15 and 15A. Section 7A was shown as three stories. An unidentified building (currently identified by the Museum as Section 8) was shown in the southwestern portion of the Phase I

Site. The remainder of the Phase I Site consisted of parkland and walkways associated with Manhattan Square.

The surrounding area was primarily developed with small dwellings with some mixed-use buildings along Columbus Avenue. Hotel Colonial was noted on the north-adjacent block in place of a vacant lot. Manhattan Square Hotel replaced a vacant lot previously noted on the 1902 map, on the south-adjacent block. The New York Historical Society Museum and Library was also noted on the south-adjacent block, in place of vacant lots. Blocks southwest of the Phase I Site were primarily developed with dwellings and mixed-use buildings along Columbus Avenue. Upholstering facilities, Public School No. 87, and a building labeled “drugs” (presumably a pharmacy) were noted on the southwest-adjacent block. Two garages/repair shops with gasoline tanks were noted in the greater surrounding area, over 730 feet to the northwest.

#### 1951

A Power & Service Building, currently referred to by the Museum as Section 17, was identified in the northern portion of the Phase I Site with a construction date of 1930. Sections 15 and 15A were identified as a storage and auto house, respectively. A passageway was shown connecting the Power & Service Building (Section 17) to the storage building (Section 15). A School Service building (currently identified by the Museum as Sections 11 and 11A) was noted to the southwest with a construction date of 1926, adjoined to Section 8 and Section 1 via aboveground passageways.

Several additions were noted to the off-site portion of the Museum, including: Hayden Planetarium and Whitney Memorial to the northeast; a building labeled African House and Roosevelt Memorial to the east; and Hall of Ocean Life to the southeast. In the greater surrounding area, multi-story dwellings and apartment buildings replaced several vacant lots and small dwellings. A laundry facility was noted approximately 150 feet north of the Phase I Site, on the north-adjacent block in place of a dwelling. The New York Historical Society Museum and Library expanded farther west. The railroad station previously noted northwest of the Phase I Site on the 1902 and 1912 maps was no longer indicated.

#### 1976

The Phase I Site appeared similar to the 1951 map.

W.M.J. O’Shea Junior High School occupied a majority of the southwest-adjacent block, in place of several dwellings noted on the 1912 and 1951 maps. Public School No. 87, previously noted on the 1912 and 1951 maps, expanded to include an auditorium, gym, and playground in place of dwellings. No further significant changes were noted from the 1951 map.

#### 1989

The Phase I Site appeared similar to the 1976 map.

Additional multi-story residential buildings were noted west and northwest of the Phase I Site, in place of hotels and religious facilities. No further significant changes were noted from the 1976 map.

### 2007

A roof patio with parking area was noted east-adjacent to the Power House (Section 17) and Service Building (currently identified by the Museum as Section 16). The auto house and storage building previously noted on the 1951 through 1989 maps were relabeled as Boiler House and Power House. The Phase I Site and Phase I Site superblock were identified as Theodore Roosevelt Park.

North, east, west, and northwest-adjacent maps for 2007 were not available for review. A subway station was indicated east-adjacent to the Phase I Site block. No further significant changes were noted from the 1989 map.

To summarize, the historical Sanborn maps indicated that the Phase I Site was Museum-leased since at least 1902 and consisted primarily of open space with the exception of Section 1, located in the southeastern portion of the Phase I Site. Various additions were identified between 1912 and 2000, with Section 16 identified most recently on the 2007 Sanborn map. Based on a site plan provided by the Museum's representatives, the Phase I Site buildings were constructed between 1877 and 2000.

Based on historical Sanborn maps, the off-site adjacent Museum buildings were built as early as 1902, with various additions constructed thereafter. The surrounding area was primarily residential in the early 20<sup>th</sup> century, with a laundry facility noted approximately 150 feet north of the Phase I Site on the north-adjacent block, and two garages/auto repair shops over 730 feet northwest of the Phase I Site. Additional commercial buildings were indicated in the late 20<sup>th</sup> and early 21<sup>st</sup> centuries, primarily along Columbus Avenue. Institutional uses, such as schools, religious facilities, and museums were also noted in the surrounding area.

#### **5.1.2 Historical Aerial Photographs**

Since historical fire insurance maps were available for the Phase I Site (and surrounding area) and these maps included information relating to land use, aerial photographs would, most likely, not provide additional useful information relevant to the potential for recognized environmental conditions or other environmental concerns. As such, aerial photographs were not reviewed.

#### **5.1.3 Phase I Site Tax Files and Zoning Records**

Based on information provided by Toxics Targeting, Inc. of Ithaca, New York, the Phase I Site is zoned as Parkland, and is listed with seven buildings classified as P7 (museums) built in 1998. However, historical Sanborn maps (Section 5.1.1) and documents provided by the Museum, indicated that the Museum was constructed starting in 1877.

#### **5.1.4 Recorded Land Title Records**

Land title records were searched using the ACRIS database, and are summarized in Section 5.2.3.

#### **5.1.5 Local Street Directories**

A City Directory prepared by Environmental Data Resources, Inc. was reviewed as part of this Phase I ESA. The City Directory consisted of the names of businesses located on-site and in adjacent Phase I Site, compiled from city and reverse telephone directories at approximately five-year intervals starting in 1920.

The following historical uses were identified for the Phase I Site: residences from 1950 to 2013; Altoy Corporation and Urban Vertical Parking, Inc. in 1983; Astro Waterproofing and Restoration Corporation in 1998; Active Automotive Customizing from 2006-2008; and Yitz Auto Repair, Rabbit Hill, Inc., and the American Museum of Natural History in 2013. Based on historical documents, the Phase I Site has been occupied by the Museum throughout its history and the non-Museum listings are likely to be erroneously attributed to the Phase I Site address.

No substantive off-site listings were noted in the City Directory search report.

## 5.2 Regulatory Review

The regulatory database listings, shown in Appendix C, were obtained from Toxics Targeting, Inc. of Ithaca, New York. It includes summaries of the databases searched, their radii around the Phase I Site and limitations of the data. The databases searched and associated radii were consistent with ASTM E1527-13.

### 5.2.1 Federal

Databases searched included the National Priority List (NPL); Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS); Emergency Response Notification System (ERNS); Toxic Chemical Release Inventory System (TRIS); the Permit Compliance System of Toxic Wastewater Discharges (WWD); the Air Discharge Facilities Index (ADF); and the USEPA Civil Enforcement Docket. Facilities subject to corrective action under the Resource Conservation and Recovery Act (CORRACTS) are discussed with State RCRA listings.

#### National Priority List (NPL)

The NPL is the USEPA's list of sites that probably require remedial action under the Superfund Program. Nearby NPL sites can sometimes pose a risk of stigmatizing surrounding Phase I Site and thus impacting property values.

One NPL site was identified within a one-mile radius of the Phase I Site. The Hudson River PCB Sediments site, located approximately 3,200 feet west of the Phase I Site, is listed due to PCB-contaminated sediment. Based on its location relative to the Phase I Site and the presumed hydraulic gradient, this site is not likely to have impacted subsurface conditions at the Phase I Site.

#### Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)

CERCLIS is a compilation of sites which the USEPA has investigated, or plans to investigate, pursuant to the Superfund Act of 1980 (CERCLA). As such, some of these sites may ultimately present concerns and others may not (but could still pose a perceived concern).

One CERCLIS site was identified within a ½-mile radius of the Phase I Site. The Hudson River PCB Sediments site, located approximately 3,200 feet west of the Phase I Site, is listed due to PCB-contaminated sediment. Based on its location relative to the Phase I Site and the presumed hydraulic gradient, this site is not likely to have impacted subsurface conditions at the Phase I Site.

Emergency Response Notification System (ERNS)

This federal database, compiled by the Emergency Response Notification System, records and stores information on certain reported releases of petroleum and other potentially hazardous substances.

The Phase I Site is not listed as an ERNS site.

Toxic Chemical Release Inventory System (TRIS)

The TRIS contains information reported by a variety of industries on their annual estimated releases of certain chemicals.

No TRIS sites were identified within a 1/8-mile radius of the Phase I Site.

Permit Compliance System of Toxic Wastewater Discharge (WWD)

This database includes certain sites which discharge wastewater containing potentially hazardous chemicals.

No WWD facilities were reported within a 1/8-mile radius of the Phase I Site.

United States Environmental Protection Agency Civil Enforcement Docket

This database tracks civil judiciary cases filed on behalf of the USEPA by the Department of Justice.

No facilities were listed in the USEPA's Civil Enforcement Docket within a 1/8-mile radius of the Phase I Site.

Air Discharge Facilities Index (ADF)

This federal database includes information on certain air emission sources.

One Air Discharge Facility was identified within a 1/8-mile radius of the Phase I Site. The Beresford Apartments located at 211 Central Park West, approximately 590 feet northeast of the Phase I Site, was listed for potential discharges of nitrogen dioxide, and was reported to be in regulatory compliance.

Based on the nature of the listing, this facility is not likely to have affected subsurface conditions beneath the Phase I Site.

### 5.2.2 State

State databases included the listings of petroleum/hazardous material spills (SPILLS); Resource Conservation and Recovery Act Notifiers (RCRA); Chemical Bulk Storage (CBS); Solid Waste Facilities (SWF); Petroleum Bulk Storage (PBS); State Inactive Hazardous Waste Disposal Sites (SHWS); Major Oil Storage Facilities (MOSF); Brownfield Cleanup Program (BCP) Sites; and Historic Utility Sites.

New York SPILLS Database

This database includes releases reported to the NYSDEC, including tank test failures (for USTs only) and tank failures.

No spills were listed for the Phase I Site. Five hundred ninety (590) spills were reported within a 1/2-mile radius of the Phase I Site, including nine active-status spills and 581 closed-status spills. The nearest spill listings with some potential to affect the Phase I Site are summarized below:

- Spill No. 9512346 was reported in January 1996 at the New York Police Department (NYPD) 20<sup>th</sup> Precinct located at 120 West 82<sup>nd</sup> Street, approximately 300 feet northwest of the Phase I Site. According to the listing, contaminated soil was found during on-site excavation and product was encountered on water during a tank removal. The site was being remediated under a New York City Department of Design and Construction (NYCDDC) Consent Order. The spill listing indicated that a methyl tert-butyl ether (MTBE) plume was detected in groundwater and was being treated by bioremediation. Routine groundwater sampling was conducted during remediation through 2004. Sampling events reported in 2005 indicated that MTBE concentrations decreased and were below NYSDEC criteria for two consecutive sampling events. The spill was closed in June 2005 and received a status of No Further Action (NFA).
- In May 2001, Spill No. 0101318 was reported at the intersection of Columbus Avenue and West 78<sup>th</sup> Street, approximately 50 feet southwest of the Phase I Site. The listing indicated that approximately 50 gallons of diesel had leaked from a tank truck onto the street, and that the FDNY arrived to remove the diesel from the pavement. The Department of Sanitation then sanded and swept away the remaining oil, and the spill was closed. Based on these details, it is not likely that this incident affected the Phase I Site subsurface.
- In August 1999, Spill No. 9906118 was reported at 66 West 77<sup>th</sup> Street, approximately 140 feet southwest of the Phase I Site. The listing indicated that a faulty gauge led to a fuel tank being overfilled, and oil spilled onto the sidewalk. Approximately 10 gallons of No. 2 fuel oil was released. The spill was cleaned, all contaminated material was recovered, and the listing was closed. Based on these details, it is not likely that this incident affected the Phase I Site subsurface.
- In July 2005, Spill No. 0505106 was reported at Consolidated Edison Vault No. 7264 located at the intersection of Columbus Avenue and West 79<sup>th</sup> Street, approximately 50 feet west of the Phase I Site. The listing indicated that approximately 2 gallons of dielectric fluid leaked from a transformer onto the concrete floor and into the sump pit, and that no sewer or waterway was affected. The spill was contained and cleanup was pending the energization of equipment, but the spill was closed. Based on these details, it is not likely that this incident affected the Phase I Site subsurface.
- In July 2009, Spill No. 0904587 was reported at the intersection of Columbus Avenue and West 79<sup>th</sup> Street, approximately 50 feet west of the Phase I Site. The listing indicated that 10 gallons of antifreeze was spilled onto the road, cleaned by the Department of Sanitation, and the spill was closed. Based on these details, it is not likely that this incident affected the Phase I Site subsurface.

Based on the listing details, distance and/or anticipated groundwater flow direction, none of the reported spill listings are likely to have significantly affected subsurface conditions at the Phase I Site. Details from all listed spills are included in Appendix C.

#### Resource Conservation and Recovery Act (RCRA) Notifiers Listings

This database lists sites which have filed notification forms regarding hazardous waste activity, including: treatment, storage and disposal facilities (TSDs); small-quantity (SQG) and large-quantity generators (LQG); and transporters regulated under RCRA. The discussion below includes any CORRACTS listings of facilities which are subject to corrective action under RCRA.

No TSD facilities were identified within a ½-mile radius of the Phase I Site. No CORRACTS facilities were identified within a one-mile radius of the Phase I Site.

The Phase I Site was listed as a RCRA generator. One-hundred thirty (130) RCRA generators/transporters were reported within a ⅛-mile radius of the Phase I Site.

- The Museum was identified as a small quantity generator (SQG) of hazardous waste from 2005 to 2016, and historical large quantity generator (LQG) of hazardous waste from 1984 to 2005 for various waste related to Museum operations (EPA ID NYD061202768). The Museum was also identified as an unspecified generator of ignitable solid waste in 1984 under EPA ID NYP000782847. One general-generators violation was reported in 1997 with a compliance date of 1998.

Facilities with some potential to affect subsurface conditions beneath the Phase I Site, based on proximity and/or the nature of the listings, are as follows:

- Adlers Cleaners, which is located at 445 Columbus Avenue, approximately 130 feet north-northeast of the Phase I Site, was identified as a generator of spent halogenated solvents in 1986 and 1998.
- Jefan Cleaning Service, located at 445 Columbus Avenue, approximately 130 feet north-northeast of the Phase I Site, was identified as a generator of spent halogenated solvents in 1986.
- The Consolidated Edison Service Box No. 14410 at the intersection of West 81<sup>st</sup> Street and Columbus Avenue, approximately 75 feet north-northeast of the Phase I Site, was identified as a generator of lead waste in 2013.
- A Consolidated Edison site at the intersection of West 80<sup>th</sup> Street and Columbus Avenue, approximately 50 feet north of the Phase I Site, was identified as a Conditionally Exempt Small Quantity Generator (CESQG) of lead in 2009. A Consolidated Edison vault was also identified at the intersection of West 80<sup>th</sup> Street and Columbus Avenue as a generator of lead in 2015.
- The Consolidated Edison Service Box No. 51927 at the intersection of West 79<sup>th</sup> Street and Columbus Avenue, approximately 50 feet west of the Phase I Site, was identified as a generator of lead waste in 2013 and 2014.
- The Consolidated Edison Manhole No. 51925 at the intersection of West 79<sup>th</sup> Street and Columbus Avenue, approximately 50 feet west of the Phase I Site, was identified as a generator of lead waste in 2013 and 2014.

Based on distance, anticipated groundwater flow direction, and/or nature of the listing, the remaining listings are not likely to affect subsurface conditions beneath the Phase I Site.

#### Chemical Bulk Storage (CBS) Database

The New York CBS is a list of facilities that store regulated non-petroleum substances in aboveground tanks with capacities greater than 185 gallons and/or in underground tanks of any size.

No CBS facilities are listed within a ⅛-mile radius of the Phase I Site.

Solid Waste Facilities (SWF)

This database includes certain landfills, incinerators, transfer stations, recycling centers, and other sites which manage solid waste.

No SWF facilities were located within ½ mile of the Phase I Site.

Petroleum Bulk Storage (PBS) Database

This database lists facilities that registered having either aboveground or underground petroleum tanks with total storage exceeding 1,100 gallons. Facilities with more than 400,000 gallons appear on the Major Oil Storage Facilities (MOSF) database (see below).

The Phase I Site was listed in the PBS database under Facility ID 2-611190. Seventy-one PBS and FDNY facilities were identified within a ¼-mile radius of the Phase I Site, including one facility located in an off-site portion of the Museum. Details of the nearest facilities are listed in Table 1.

**Table 1**  
**Area Petroleum Bulk Storage Facility Data**

| Location                                                                                                | Capacity (gallons)                                          | Product Stored | Status                                                                       | Distance/Direction from Phase I Site |
|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------|------------------------------------------------------------------------------|--------------------------------------|
| American Museum of Natural History<br>179 Central Park West (per FDNY listing)<br>200 Central Park West | 1,080 UST<br>1,080 AST<br>500 AST (day tank)<br>50 AST(dry) | Diesel         | Closed-In Place (1,080-gallon UST)<br>In Service<br>In Service<br>In Service | At Phase I Site                      |
| American Museum of Natural History<br>179 Central Park West (per FDNY listing)<br>200 Central Park West | 6,000 UST<br>200 AST                                        | Diesel         | In Service                                                                   | Outside of Phase I Site boundary     |
| The Orleans<br>100 West 80 <sup>th</sup> Street                                                         | 4,800 AST                                                   | No. 2 Fuel Oil | In Service                                                                   | 130 feet north-northwest             |
| Parc 77<br>50-52 West 77 <sup>th</sup> Street                                                           | 10,000 AST                                                  | No. 6 Fuel Oil | In Service                                                                   | 130 feet south-southwest             |
| 64-66 West 77 <sup>th</sup> Street<br>66 West 77 <sup>th</sup> Street                                   | 4,000 AST                                                   | No. 2 Fuel Oil | In Service                                                                   | 140 feet southwest                   |
| 101 West 80 <sup>th</sup> Street Owners Corporation<br>101 West 80 <sup>th</sup> Street                 | 3,000 AST                                                   | No. 4 Fuel Oil | In Service                                                                   | 145 feet north-northwest             |
| Joben Realty Association<br>101 West 78 <sup>th</sup> Street                                            | 5,000 AST                                                   | No. 4 Fuel Oil | In Service                                                                   | 150 feet west-southwest              |
| 102 West Associates<br>102 West 79 <sup>th</sup> Street                                                 | 2,000 UST                                                   | No. 2 Fuel Oil | Closed-In Place                                                              | 150 feet west                        |
| 370 Columbus Realty LLC<br>370 Columbus Avenue                                                          | 3,000 AST                                                   | No. 6 Fuel Oil | In Service                                                                   | 150 feet west-southwest              |
| The Park Belvedere Condominium<br>101 West 79 <sup>th</sup> Street                                      | 20,000 UST                                                  | No. 6 Fuel Oil | In Service                                                                   | 160 feet northwest                   |

**Table 1**  
**Area Petroleum Bulk Storage Facility Data**

| Location                                                                | Capacity (gallons) | Product Stored | Status     | Distance/Direction from Phase I Site |
|-------------------------------------------------------------------------|--------------------|----------------|------------|--------------------------------------|
| The Excelsior Hotel<br>45 West 81 <sup>st</sup> Street                  | 6,000 UST          | No. 6 Fuel Oil | In Service | 160 feet northeast                   |
| 51 West 81 <sup>st</sup> Corporation<br>51 West 81 <sup>st</sup> Street | 5,000 AST          | No. 2 Fuel Oil | In Service | 165 feet north-northeast             |
| Park 44 Corporation<br>44 West 77 <sup>th</sup> Street                  | 7,500 UST          | No. 6 Fuel Oil | In Service | 170 feet south-southwest             |
| The Museum 77 Condominium<br>105 West 77 <sup>th</sup> Street           | 1,500 AST          | No. 2 Fuel Oil | In Service | 185 feet southwest                   |

**Notes:** AST - aboveground storage tank  
UST - underground storage tank

The State SPILLS database reported closed-status spills at 66 West 77<sup>th</sup> Street, 101 West 78<sup>th</sup> Street, and 45 West 81<sup>st</sup> Street. However, based on the information provided, anticipated groundwater flow, and their distance, these spills are not likely to have affected the Phase I Site subsurface. Details of all PBS facilities located within 1/8-mile of the Phase I Site are included in Appendix C.

State Inactive Hazardous Waste Disposal Site Registry (SHWS)

This program (also known as State Superfund) lists information regarding a variety of sites likely requiring cleanup.

No inactive hazardous waste disposal sites were located within a 1-mile radius of the Phase I Site.

State Hazardous Substance Waste Disposal Site Study (SHSWDS)

This database tracks certain sites that were not listed on SHWS, but may still require investigation and/or cleanup.

No SHSWDSs were identified within a 1/2-mile radius of the Phase I Site.

Major Oil Storage Facilities (MOSF) Database

These facilities have petroleum storage of 400,000 gallons or more.

No Major Oil Storage Facilities were reported within a 1/8-mile radius of the Phase I Site.

Environmental Restoration Program

These sites (which are generally municipally-owned) are receiving New York State funding for site investigation and remediation. Some sites in this program have known contamination, whereas others have not had sufficient investigation to determine whether contamination is present.

No ERP sites were identified within a 1/2-mile radius of the Phase I Site.

Voluntary Cleanup Program

The Voluntary Cleanup Program is a NYSDEC program for investigation and remediation of (generally) privately-owned sites. Some sites in this program have known

contamination, whereas others have not had sufficient investigation to determine whether contamination is present.

No VCP sites were identified within a ½-mile radius of the Phase I Site.

#### Brownfield Cleanup Program

This NYSDEC program is the successor to the Voluntary Cleanup Program. Again, some sites have known contamination, whereas others have not had sufficient investigation to determine whether contamination is present.

One BCP site was identified within a ½-mile radius of the Phase I Site. The facility, identified as 267-273 West 87<sup>th</sup> Street is located approximately 2,400 feet north of the Phase I Site and was a former cab company. Contamination at the site included elevated levels of petroleum- and chlorinated-related volatile organic compounds (VOCs) and heavy metals in soil and groundwater. Soil vapor samples indicated elevated levels of VOCs, including TCE and tetrachloroethylene (PCE). Based on its location relative to the Phase I Site and the presumed hydraulic gradient, this site is not likely to have impacted subsurface conditions at the Phase I Site.

#### Historic Utility Sites

This is an inventory of certain power generating stations, manufactured gas plants, gas storage facilities, maintenance yards and other gas and electric utility sites identified in various historic documents, maps and annual reports from 1898 to 1950.

No historical utility sites were reported within a ⅛-mile of the Phase I Site.

### **5.2.3 Local Agency File Review**

Records available online from the New York City Fire, Buildings and Finance Departments were viewed for the Phase I Site. The Fire Department records were obtained by Toxics Targeting, Inc. as part of the regulatory database search. Since the records typically address a multitude of issues, the review focused on items likely to relate to the potential presence of hazardous materials, e.g., petroleum tank installation applications and permits, and records indicating prior uses. Copies of pertinent information are included in Appendices C (Fire Department Records) and D (Buildings and Finance Department Records).

#### Fire Department

The computerized FDNY Tanks database was searched regarding past or current motor vehicle fuel and heating oil tank listings within a ⅛-mile radius of the Phase I Site.

Ten listings were identified in computerized FDNY tank records within a ⅛-mile radius of the Phase I Site. One listing with no tank data was identified for the Phase I Site. This listing and off-site listings are discussed with PBS listings in Section 5.2.2.

#### Buildings Department

Buildings Department records were generally consistent with the historical information detailed in the Sanborn maps, reviewed in Section 5.1.1. Computerized records indicated that numerous Certificates of Occupancy for the Phase I Site and off-site Museum buildings, dating from 1925 to 2009, reported that the buildings were used as a museum, and contained offices, mechanical rooms, laboratories, parking garages, storage areas, retail, and exhibit areas.

Department of City Planning

A search of NYC Environmental Quality Review Requirements (CEQR) data by Toxics Targeting, Inc. indicated that neither the Phase I Site nor any sites within a 1/8-mile radius of the Phase I Site were assigned (E) designations.

Land Title Records and Tax Records

Electronic Phase I Site transaction records for the Phase I Site Block and Lot were reviewed from the New York City Department of Finance Office of the City Register Automated City Register Information System (ACRIS). No deed information was identified in the ACRIS files for the Phase I Site.

**5.2.3.1. Additional Environmental Record Sources**

To enhance the search, ASTM requires that additional local records be reviewed (i.e., beyond those included as part of the standard database search or checked online) when, in judgment of the environmental professional, such records for the Phase I Site or any adjoining Phase I Site would be reasonably ascertainable; and useful, accurate and complete in light of the objective of the records review. These records may include:

- Local Brownfields Lists
- Local Lists of Landfill/solid waste disposal sites
- Local Lists of Hazardous Waste/Contaminated Sites
- Local Lists of Registered Tanks
- Local Land Records (for activity use limitations)
- Records of emergency release reports
- Records of contaminated public wells

Sources for these records include:

- Department of Health/Environmental Division
- Fire Department
- Building Permit/Inspection Department
- Local/Regional Pollution Control Agency
- Local/Regional Water Quality Agency
- Local Electric Utility (for PCB records)

A Freedom of Information Law (FOIL) request for information pertaining to the Phase I Site was submitted to the NYCDEP via the online request form dated August 5, 2016. As of the date of this Phase I ESA, a response has not been received from NYCDEP. If issues of potential concern are noted upon receipt of the information, an addendum to this report will be created to discuss relevant findings.

A FOIL request for information pertaining to the Phase I Site was submitted to NYSDEC via the online request form dated August 5, 2016. In a response dated August 30, 2016, NYSDEC provided the following documents pertaining to the Museum: a PBS Facility Information Report and PBS applications identifying one 6,000-gallon in-service diesel UST, one 1,080-gallon in-service diesel AST, one 500-gallon in-service diesel AST, one 200-gallon diesel AST, one 50-gallon in-service diesel AST, and one 1,080-gallon

closed-in-place diesel UST; a 2009 PBS application for one in-service 6,000-gallon diesel UST; a May 2013 Notice of Violation from NYSDEC indicating that an inspection of the 6,000-gallon diesel UST revealed evidence of product in the tank top sump; and a subsequent NYSDEC PBS inspection form dated May 5, 2016 which did not identify any facility or tank violations, indicating that all previous issues had been resolved.

A FOIL request for information pertaining to the Phase I Site was submitted to the New York City Department of Health (NYCDOH) via the FOIL request form dated August 5, 2016. As of the date of this Phase I ESA, a response has not been received from NYCDOH. If issues of potential concern are noted upon receipt of the information, an addendum to this report will be created to discuss relevant findings.

A FOIL request for information pertaining to the Phase I Site was submitted to the New York State Department of Health (NYSDOH) in a letter dated August 5, 2016. In a letter dated September 6, 2016, NYSDOH indicated that no records pertaining to the request were located.

In AKRF's judgment, no other additional local records meeting the ASTM criteria are pertinent for the Phase I Site.

## 6.0 USER-PROVIDED INFORMATION

In preparing this Phase I ESA, AKRF requested that the American Museum of Natural History provide any pertinent information regarding the Phase I Site, specifically:

- Whether any *environmental liens or activity and land use limitations (AULs)* are in place or filed or recorded against the Phase I Site?
- Whether they had any specialized knowledge or experience related to the Phase I Site or nearby Phase I Site (e.g., specialized knowledge of any chemicals used on-site)?
- Whether the (anticipated) purchase price reflects that the Phase I Site is or could be contaminated?
- Whether they were aware of commonly known or reasonably ascertainable information about environmental conditions of the Phase I Site?
- Whether they were aware of any obvious indicators of contamination at the Phase I Site?
- Whether they were aware of any pending, threatened, ongoing or past litigation/enforcement action/consent order/notice of violation related to hazardous substances or petroleum products?

According to the Museum, this Phase I ESA was performed to evaluate the Phase I Site as part of environmental review associated with the Project.

The Museum's Senior Director of Human Resources and Environmental, Health and Safety and Senior Director of the Museum's Capital Projects and Construction department, reported no knowledge of any: environmental liens or activity use limitations on the Phase I Site; property value reduction due to environmental issues; any pending, threatened, ongoing or past litigation/enforcement action/consent order/notice of violation related to hazardous substances or petroleum products; or any obvious indicators of contamination on the Phase I Site. To the extent that pertinent additional information was provided, it has been summarized elsewhere in this report.

## 7.0 PREVIOUS STUDIES

### American Museum of Natural History Planetarium and North Side Project – Final Environmental Impact Statement, Allee King Rosen & Fleming, Inc. (AKRF), September 1996

AKRF prepared a Final Environmental Impact Statement (FEIS) in 1996 to analyze the effects of the proposed Planetarium and North Side Project in conjunction with the Museum. The proposed project consisted of new facilities for exhibition, scientific research, education, and visitor services on the north side of the Museum and planetarium. The FEIS analyzed the proposed project for potential impacts it may have on the surrounding area. An assessment of hazardous materials was conducted in the Museum activities, buildings, and soil and groundwater on the Phase I Site. The FEIS indicated that the Museum's Power House (Section 15) housed a coal-fired power plant at one time, and potential contaminants could pose a hazard if they remained in the site subsurface.

Based on historical documentation and interviews with Museum staff, a coal-fired electric power plant was located in Section 15 from approximately 1931 up until the 1960s, when the Museum was converted to alternating current. During the 1996 inspection, former ash basins in the sub-basement of Section 15 were observed to be covered with ash residue in addition to a pile of ash.

A 1,000-gallon underground diesel fuel storage tank was observed at the time of the site inspection on the Museum Phase I Site, and was reported to be used to fuel the emergency generator. The FEIS noted that engineering plans from 1962 indicated the proposed installation of a 30,000-gallon UST in Section 15; however, no further documentation of the tank installation was found, and Museum representatives were unaware of the tank at the time of the inspection. The engineering plans were reported to correspond to the period when the Museum converted from coal to Con Ed steam as a heating source; thus, it is possible the proposed UST was not installed.

Chemical storage including spray paint, muriatic acid, hydrochloric acid, and lacquer thinner were noted in Section 17. Additionally, silk screening operations, a spray painting booth, and a silver soldering booth were identified in Section 17, all equipped with exhaust hoods. The exhaust hoods were reported to be registered with the NYCDEP Bureau of Air Resources. Section 15 contained the Museum Reproduction Department, and storage and office space. Chemical storage consisted of various types of resin neatly stored with no apparent leaks, in a room registered with the New York City Fire Department. Evidence of small spills was noted around diesel storage on the ground floor.

Consolidated Edison owned three vaulted transformers east-adjacent to Section 15. The FEIS identified a letter from Consolidated Edison dated October 31, 1985 which stated that all three transformers had dielectric fluid PCB content of less than 50 parts per million, and are within the Federal regulations for the use of PCBs. Several dry-type transformers were noted throughout the remainder of the Museum that did not contain PCBs.

GCI Environmental Advisory, Inc. conducted a lead-based paint and asbestos investigation of the Museum in 1995. Suspect asbestos-containing material was observed in the basement of Section 17 and in off-site adjacent Museum buildings. Plans were reported to be made to abate damaged asbestos throughout the Museum. Lead-based paint was identified on the original painted ceilings in the Section 15 building and passageway connecting Section 15 to the Section 17.

A subsurface investigation was conducted in March and April of 1996 in the northern and western portions of the Phase I Site and Museum, to determine whether any chemical storage, tanks, or past and present uses affected the proposed area of construction. Based on soil borings, similar fill material was encountered throughout the investigated area. There was no evidence of ash or any potentially hazardous materials. Groundwater was encountered between 20 and 30 feet below ground surface.

American Museum of Natural History Richard Gilder Center for Science, Education, and Innovation – Historic Preservation Background Research Report, Higgins Quasebarth & Partners (HQ), September 2016

The September 2016 Historic Preservation Background Research Report, prepared by HQ, provided additional historical information regarding the Museum and Phase I Site and considered the appropriateness of the Project with regard to the Museum’s historic Master Plan and missions statement, and to the intended future plans for the Museum.

The report identified that the Museum was first constructed between 1874 and 1877, with the addition of Sections 2 through 7 between 1890 and 1900. Sections 15 and 15A were constructed between 1903 and 1904 and used as the Power House and Boiler Room buildings. Section 17 was constructed between 1930 and 1931 and used as the Power and Service Building, replacing the Section 15 Power House. Section 15 was converted to a garage by approximately 1933, and then into the current Ichthyology Department building in approximately 1965.

## 8.0 LIMITATIONS AND DATA GAPS

This assessment met the requirements of the American Society for Testing and Materials (ASTM) as established by ASTM Standard E1527-13 at the time it was performed, with the following exceptions. AKRF does not believe that the following limitations and data gaps are significant or materially affect the conclusions of this report.

- Results of this investigation are valid as of the dates on which the investigations were performed.
- Sufficient information about the history of the Phase I Site and surrounding area was obtained from the available historical Sanborn maps, New York City Buildings Department records, and interviews. Although the Phase I Site area history was not conducted in five-year intervals, this data gap is not likely to alter the conclusions of this report.
- Agency File Reviews for the Phase I Site and adjacent sites consisted of: a review of standard databases and electronic records maintained by pertinent departments and agencies (summarized in Section 5.2); and FOIL requests for pertinent records submitted to the FDNY, NYCDOH, NYSDOH, and NYSDEC. AKRF believes this file review was sufficient in determining the potential for recognized environmental conditions or other environmental concerns at the Phase I Site and additional reviews beyond this are not warranted and would not materially change the conclusions of this report.
- Interviews and user provided information are provided in Sections 2.0 and 6.0. To the extent that interviews were not conducted with the list of interviewees cited in the ASTM Standard (e.g., local government officials such as NYSDEC personnel, beyond the FOIL requests discussed above), AKRF does not believe that this represents a significant data gap that would materially change the conclusions of this report.

## 9.0 CONCLUSIONS

This Phase I Environmental Site Assessment was performed in conformance with ASTM Standard E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Practice*. Any exceptions to, or deletions from, the Standard are described in Section 8.0. The term “Recognized Environmental Condition” or REC means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a Phase I Site: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The Standard also includes definitions of Historic REC (HREC), Controlled REC (CREC), and *De Minimis* Condition. A *De Minimis* Condition is defined as an environmental concern that is not a threat to human health or the environment and would not be subject to enforcement action.

Historically, the Phase I Site was Museum-leased since approximately 1874. Historic Sanborn maps indicate that in 1902 the Phase I Site was primarily vacant with the exception of Section 1 located in the southeastern portion of the Phase I Site. Various additions were identified between 1912 and 2000, with Section 16 identified most recently on the 2007 Sanborn map. Throughout their history, the Phase I Site buildings were primarily used for exhibitions, research, maintenance, and educational purposes associated with the Museum. Sections 15 and 15A were identified as a storage structure and auto house on Sanborn maps dated 1951 through 1989. Though Sanborn maps indicate that Sections 15 and 15A were then used as a Power House and Boiler House through 1989, prior reports indicate that Sections 15 and 15A were converted to a garage in approximately 1933, and into the current Ichthyology Department space in approximately 1965. Section 17 historically housed a coal-fired electric power plant until the 1960s, when the Museum converted to alternating current.

Throughout its history, the Phase I Site was bounded to the north by West 81<sup>st</sup> Street, followed by residential areas; to the east by portions of the Museum outside of the Phase I Site boundary; to the south by West 77<sup>th</sup> Street, followed by residential and institutional uses; and to the west by Columbus Avenue, followed by multi-story residential and commercial buildings. Central Park and other portions of the Museum and Theodore Roosevelt Park were located east of the Phase I Site.

As part of the environmental review process for the proposed project, this Phase I ESA report and a Subsurface Investigation (Phase II) Work Plan would be submitted to the New York City Department of Environmental Protection (DEP) for review and approval to evaluate any RECs identified as part of this assessment, as described below:

### ***Recognized Environmental Conditions (RECs)***

- Historic chemical storage and use at the Phase I Site that might represent RECs included:

Section 16 – One 1,080-gallon diesel fuel oil AST located within an epoxy-coated room with secondary containment berm;

Section 17 - One empty 250-gallon parts washer tank formerly containing trichloroethylene (TCE), and a 500-gallon double-wall AST day tank located on the first floor (associated with the AST located in Section 16); and

Exterior yard - Drums (up to 55 gallons) of ethanol, isopropanol, research space waste, and diesel in chemical storage sheds. Chemical storage sheds included secondary containment systems, and are regularly inspected to prevent spillage. Floor drains noted in the exterior yard and other areas throughout the Phase I Site were reported to be connected to the municipal sewer system but were in good condition with no evidence of releases or spills. Spill prevention kits were also identified in the drum storage area.

Regulatory databases identified the Museum as a small quantity generator (SQG) of hazardous waste from 2005 to 2016, and historical large quantity generator (LQG) of hazardous waste from 1984 to 2005. Chemical waste was disposed of by Clean Harbors, a permitted chemical waste hauler.

Although chemical storage areas are FDNY-permitted, with no evidence of a release noted on or concerning the Phase I Site, the locations of historical on-site use of chemicals (including chlorinated solvents) for specimen preservation and diesel fuel for Phase I Site operations and maintenance will be the subject of future Phase II subsurface investigation to evaluate whether there have been any impacts to subsurface conditions at the Phase I Site.

- The Museum is registered in the New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage (PBS) database with four ASTs and two USTs, with three ASTs and one UST located at the Phase I Site.

Although on-site storage tank controls, including secondary containment in the form of curbs or double-wall construction, interstitial alarms, high level alarms and BMS management were noted with no evidence of a release noted on or concerning the Phase I Site, the locations of historical on-site storage of fuel oil in USTs and ASTs will be the subject of future Phase II subsurface investigation to evaluate whether there have been any impacts to subsurface conditions at the Phase I Site.

- The historical uses of Section 17 (the Power House) included use as a coal-fired electric power plant and of Section 15 included use as an auto house and power house. During the reconnaissance, no evidence of coal storage or residue was observed and there is, therefore, no present information indicating that the Project is expected to be complicated by the former presence of the power house and auto house uses. These areas will be the subject of future Phase II subsurface investigation to evaluate whether there have been any impacts to subsurface conditions at the Phase I Site.

#### ***De Minimis Conditions***

- Arsenic-preserved hide storage was noted in dedicated areas on the fifth floor of Section 1, and on the third floor of Section 7A. Arsenic-preservation was a common preservation technique for natural history collections used between approximately 1930 and 1990. Preserved hides were stored in designated cabinets.
- The chemical storage area in Section 8 was noted on the fifth floor in an FDNY-permitted room with a secondary containment berm. Chemicals stored included 1 liter to 5 gallons in volume, of 1-butanol, ethyl alcohol, toluene, and other specimen preservation-related solvents, with no record of historic release.
- Chemical storage was noted in Section 11B on the lower level and fourth floors and included nitrate film negatives and acetate film roll storage.
- Chemical storage noted in Section 15 in the Ichthyology collections included approximately 300,000 small jars (up to five gallons) of specimens preserved in ethanol or isopropanol, large containers and drums (up to 55 gallons) of ethanol used for specimen preservation, and other containers (generally 15 gallons or less) of organic solvents, and solvent wastes.
- Additional chemical storage noted in Section 17 included small containers (up to one gallon) of polyester resins, spray paints, and acids in the exhibition production shop on the fifth floor.
- Additional chemical storage noted in the exterior yard included 55-gallon drums of food oil waste, and liquid nitrogen in a 3,000-gallon AST.

- A proposed 30,000-gallon UST was shown on 1962 engineering plans for Section 17 (the Power House). However, no documentation of the UST installation was found. Museum representatives do not believe the tank was installed, and the Museum was reported to have converted from coal to Consolidated Edison steam as a heating source around the time the plans were prepared; thus, it appears the proposed UST was never installed.
- One closed-in-place 1,080-gallon double-wall UST with interstitial monitoring and high-level alarm was identified in the Exterior Yard. This UST was associated with the former 50-gallon day tank AST identified in Section 1.
- The following petroleum storage tanks were located in Museum areas outside of the Phase I Site boundary: one in-service 6,000-gallon double-wall fiberglass reinforced plastic UST containing and one in-service 200-gallon double-wall AST, both containing diesel fuel and supplying an emergency generator. These tanks were located in a courtyard in the southwestern portion of the Museum, outside of the Phase I Site boundary. No odors, staining, or spills were noted in the vicinity of the AST and no related historic spills were documented.
- Based on the age of the Museum sections and prior subsurface investigations which identified historic fill in the northern portion of Theodore Roosevelt Park, historic fill materials may also be present beneath the Phase I Site.

***Other Considerations (outside scope of ASTM Standard E1527-13)***

The following items were identified as part of the Phase I ESA and are considered outside of the ASTM Standard E-1527-13. Provided that the Museum continues to manage these items in accordance with applicable regulatory requirements, the following are not considered significant concerns.

- Based on the age of the Museum sections, asbestos-containing materials (ACM) may be present. Suspect ACM observed during the reconnaissance included: window glazing and caulking, drywall, plaster, vinyl floor tiles and associated mastic, ceramic tile mastic, suspended ceiling tiles, ventilation duct and thermal pipe insulation, and spray-on fireproofing, generally noted to be in good condition with the exception of surfaces within the former shooting range and some stairway walls within Section 1. Museum representatives stated that the Phase I Site buildings had been surveyed for asbestos and an asbestos management plan was in place. Various abatement activities have been conducted as part of renovations and expansions, and reassessments are conducted prior to any construction activities.
- Based on the age of the Museum sections, lead-based paint may be present in any areas which were not recently renovated. Painted surfaces were generally noted to be in good condition with the exception of surfaces within the below-grade former shooting range and some stairway walls within Section 1.
- Based on the age of the Museum sections, any window caulking, electrical equipment, hydraulic equipment, or fluorescent lighting fixtures installed prior to 1979 may contain PCBs. Any fluorescent bulbs and switches may also contain mercury. No obvious leaks or odors were observed in connection with observed equipment or lighting fixtures in viewed accessible areas.

***Potential for Vapor Migration***

Due to the use and storage of chemicals on the Phase I Site, a potential for subsurface vapor intrusion may exist. Following any future subsurface testing, potential vapor mitigation of existing or future buildings would be assessed.

***Conclusions***

Although chemical storage areas are maintained as required, the Museum employs protective measures against releases, and there has been no evidence of a release noted on or concerning the Phase I Site, the locations of historical on-site storage of chemicals and fuel oil, as well as the location of the historical use of Section 17 (the Power House) as a coal-fired electric power plant and Section 15 as an auto house and power house, will be the subject of future Phase II subsurface investigation to evaluate whether there have been any impacts to subsurface conditions at the Phase I Site.

Prior to commencing development activities involving significant subsurface disturbance, a Phase II subsurface investigation, including soil, groundwater and soil vapor sampling and an inspection of the drain in the chemical storage yard, would be conducted to assess subsurface conditions at the Phase I Site.

During any subsurface disturbance, surplus excavated soil and debris would be handled and disposed of in accordance with applicable regulatory requirements. Evidence of a spill (if any) located or found during future investigation or disturbance would be reported to NYSDEC and addressed in accordance with applicable requirements. If subsurface investigation findings indicate that potential vapor intrusion concerns exist, the potential inclusion of vapor mitigation measures, including vapor barriers and sub-slab venting systems, would be evaluated.

If the conclusions of the Phase II investigation indicate any condition that would require a Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP), then prior to the start of the proposed development work, a RAP and CHASP would be prepared and submitted to the NYCDEP for review and approval, which would summarize all environmental mitigation measures designed to protect against the potential for human or environmental exposure to known or unexpectedly encountered hazardous materials during and following construction of the proposed development. The RAP and CHASP would be implemented throughout the duration of project construction.

## 10.0 SIGNATURE PAGE

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312.

We have the specific qualifications based on education, training, and experience to assess a Phase I Site of the nature, history, and setting of the Phase I Site for which the assessment was performed. We have performed all the appropriate inquiries in conformance with standards and practices set forth in 40 CFR Part 312.



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Marc S. Godick, LEP  
Senior Vice President



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Eric Park  
Technical Director

## 11.0 QUALIFICATIONS

The purpose of this assessment was to convey a professional opinion about the potential presence or absence of contamination, or possible sources of contamination on the Phase I Site, and to identify existing and/or potential environmental issues associated with the Phase I Site including *Recognized Environmental Conditions* as defined in ASTM Standard E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Practice*.

The assessment was performed in accordance with customary principles and practices in the environmental consulting industry, and in accordance with the above-referenced ASTM Standard, except as noted otherwise in Section 8.0. It should only be used as a guide in determining the possible presence or absence of hazardous materials on the Phase I Site at the time of the reconnaissance, as it is based upon the review of readily available records relating to both the Phase I Site and the surrounding area, as well as a visual reconnaissance of current conditions.

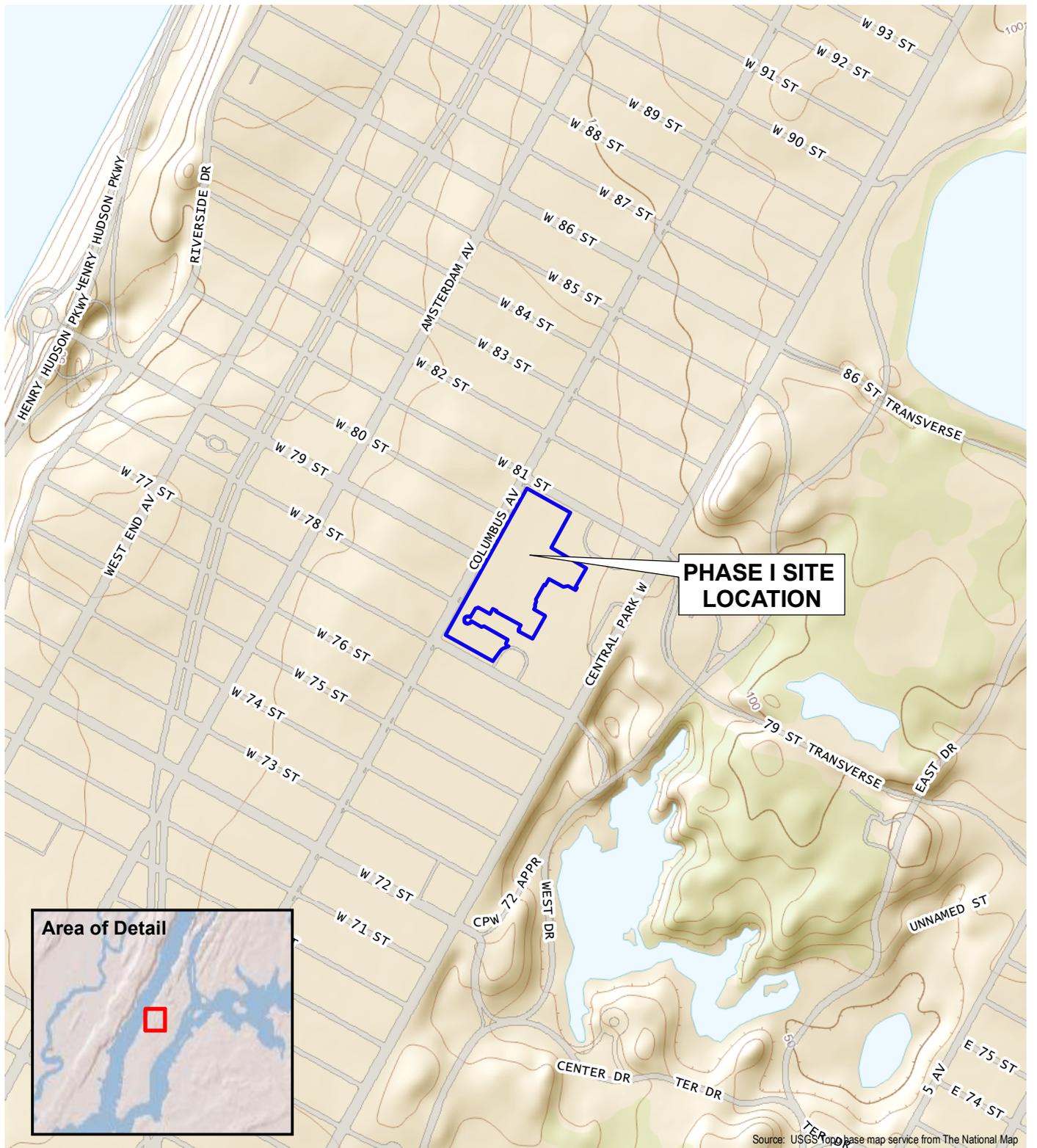
This Phase I Assessment is not, and should not be construed as, a guarantee, warranty, or certification of the presence or absence of hazardous substances, which can be made only with testing, and contains no formal plans or recommendations to rectify or remediate the presence of any hazardous substances which may be subject to regulatory approval. This report is not a regulatory compliance audit.

This report is based on services performed by AKRF, Inc. professional staff and observation of the Phase I Site and its surroundings. We represent that observations made in this assessment are accurate to the best of our knowledge, and that no findings or observations concerning the potential presence of hazardous substances have been withheld or amended. The research and reconnaissance have been carried to a level that meets accepted industry and professional standards. Nevertheless, AKRF and the undersigned shall have no liability or obligation to any party other than the American Museum of Natural History and their successors or assignees, and AKRF's obligations and liabilities to the above, their successors or assignees is limited to fraudulent statements made, or grossly negligent or willful acts or omissions.

## 12.0 REFERENCES

1. Toxics Targeting, Inc., American Museum of Natural History – New York, New York, Regulatory Radius Search, August 1, 2016.
2. U.S. Geological Survey, *Central Park, NY - NJ Quadrangle, 7.5 minute Series (Topographic), Scale 1:24,000*, 2011.
3. U.S. Geological Survey, Open Files Report 89-462; Bedrock and Engineering Geologic Maps of New York County and Parts of Kings and Queens Counties, New York, and Parts of Bergen and Hudson Counties, New Jersey, Sheet 3 - Bedrock Contours and Outcrops, 1990.
4. New York State Department of Health: Office of Public Health - Environmental Radiation Section, Basement Radon Screening Data, 2016.
5. Sanborn Insurance Maps dated 1902, 1912, 1951, 1976, 1989, and 2007.
6. Environmental Data Resources, Inc., 200 Central Park West – New York, NY 10024, City Directory Abstract, June 24, 2015.
7. Allee King Rosen & Fleming, Inc., *American Museum of Natural History Planetarium and North Side Project - Final Environmental Impact Statement*, September 1996.
8. Higgins Quasebarth & Partners, *American Museum of Natural History Richard Gilder Center for Science, Education, and Innovation – Historic Preservation Background Research Report*, September 2016

## FIGURES



Portions of the American Museum of Natural History  
and Theodore Roosevelt Park  
New York, New York



**PHASE I SITE LOCATION**

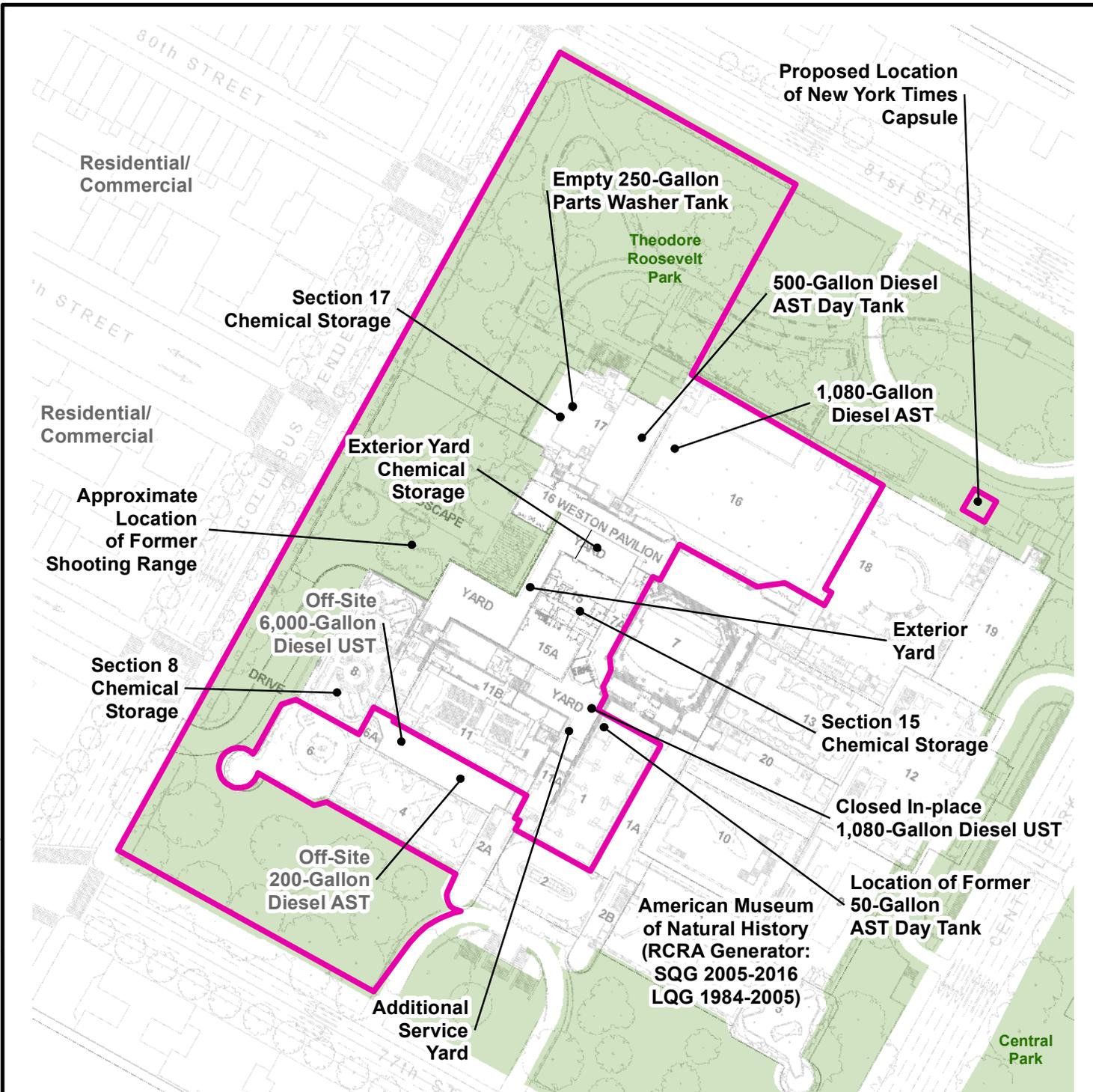
Environmental Consultants  
440 Park Avenue South, New York, N.Y. 10016

DATE  
**9/9/2016**

PROJECT No.  
**12166**

FIGURE  
**1**

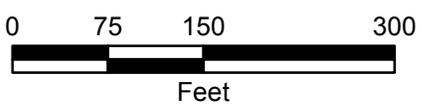
© 2016 AKRF, Inc. Environmental Consultants W:\Projects\12166 - AMNH EXPANSION\Technical\GIS and Graphics\Hazmat\12166 Fig 2 Phase I Site Detail.mxd



Map Source: NYCDP (NYC Dept. of City Planning) GIS database

### Legend

-  Phase I Site Boundary
- UST Underground Storage Tank
- AST Aboveground Storage Tank



Portions of the American Museum of Natural History  
and Theodore Roosevelt Park  
New York, New York

**AKRF**  
Environmental Consultants  
440 Park Avenue South, New York, N.Y. 10016

|             |            |
|-------------|------------|
| DATE        | 11/15/2016 |
| PROJECT No. | 12166      |
| FIGURE      | 2          |

## PHASE I SITE DETAIL

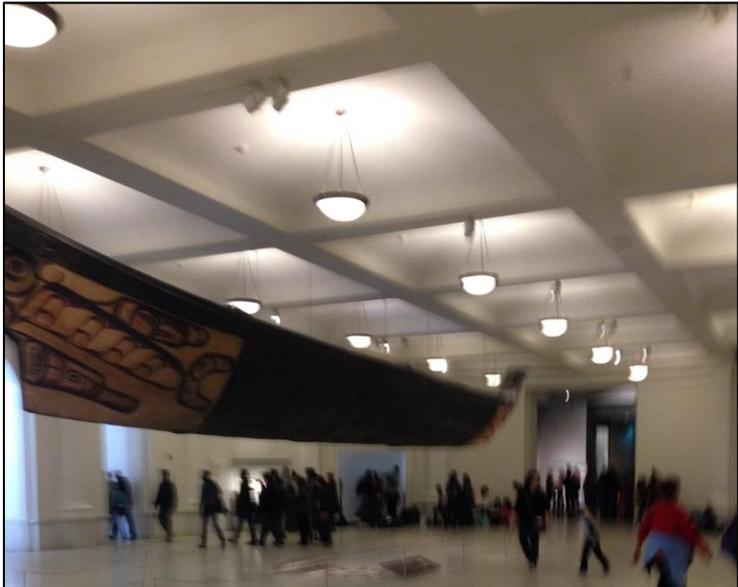
**APPENDIX A**  
**PHOTOGRAPHIC DOCUMENTATION**



**Photograph 1.** Typical exterior view of the Museum, as seen from Columbus Avenue.



**Photograph 2.** Typical view of exhibition space located within the Museum.



**Photograph 3.** Typical interior view of exhibition space and visitors' lobby within the Museum.



**Photograph 4.** Typical library space located within the Museum.



**Photograph 5.** Small containers of Anthropology Department-related solvents in a chemical storage closet in Section 8.



**Photograph 6.** Interior view of the former shooting range, located beneath Theodore Roosevelt Park, north-adjacent to Section 8.



**Photograph 7.** Small containers (up to one gallon) of organic solvents and solvent wastes stored in a laboratory located in Section 15.



**Photograph 8.** First floor laboratory in Section 15, with chemical storage areas.



**Photograph 9.** Elevator mechanical room with hydraulic oil tank in Section 15.



**Photograph 10.** 500-gallon double wall day tank located in Section 17 and associated with the 1,080-gallon aboveground storage tank (AST).



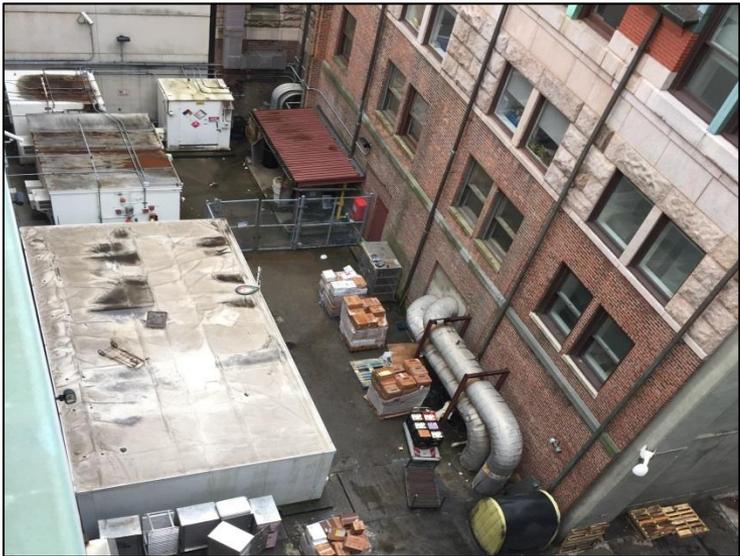
**Photograph 11.** 1,080-gallon diesel AST in Section 16.



**Photograph 12.** Parts washer associated with degreasing operations and a decommissioned 250-gallon parts washer tank of trichloroethylene (TCE) in Section 17.



**Photograph 13.** Floor drain located within the parts washer room of Section 17.



**Photograph 14.** View of the exterior yard. Chemical storage sheds in the background.



**Photograph 15.** Chemical storage shed containing 55-gallon drums of ethanol in the exterior yard.



**Photograph 16.** Steam heating pipes and elevated 55-gallon drums of yellow grease (used cooking oil) stored with a protective cover, located in the exterior yard.



**Photograph 17.** Spill kit stored in the exterior yard chemical storage area.

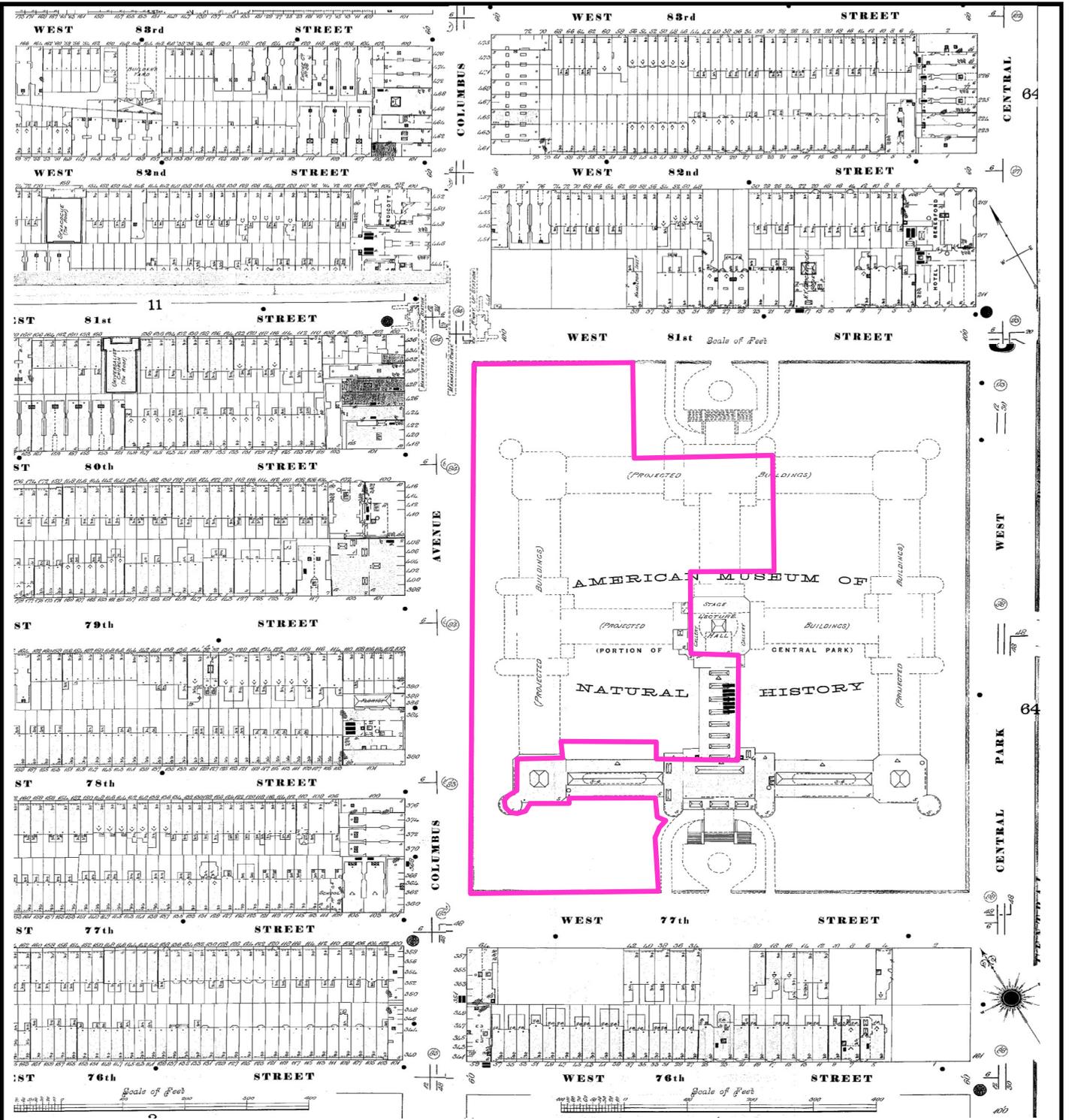


**Photograph 18.** Location of the closed in-place 1,080-gallon underground storage tank (UST) in the service area, south-adjacent to Section 15. Associated historic piping and overfill alarm in background.



**Photograph 19.** Typical view of Theodore Roosevelt Park, west-adjacent to the Museum.

**APPENDIX B**  
**HISTORICAL SANBORN MAPS**



**LEGEND:**

— Property Boundary

Portions of the American Museum of Natural History and Theodore Roosevelt Park  
New York, New York

**1902 SANBORN MAP**



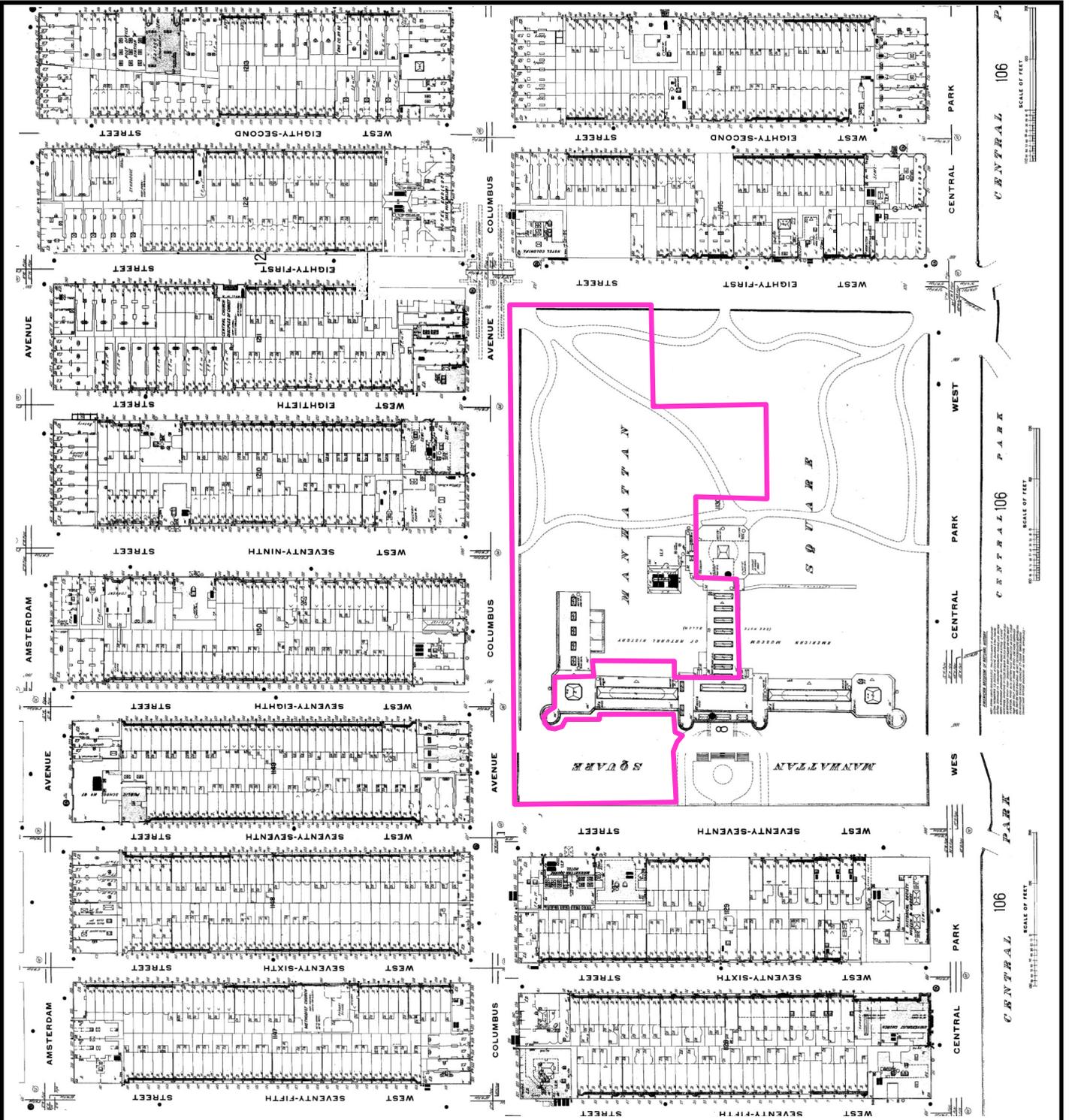
Environmental Consultants  
440 Park Avenue South, New York, N.Y. 10016

DATE  
**11.16.16**

PROJECT No.  
**12166**

SCALE  
**nts**

FIGURE  
**Appx B**



**LEGEND:**

— Property Boundary

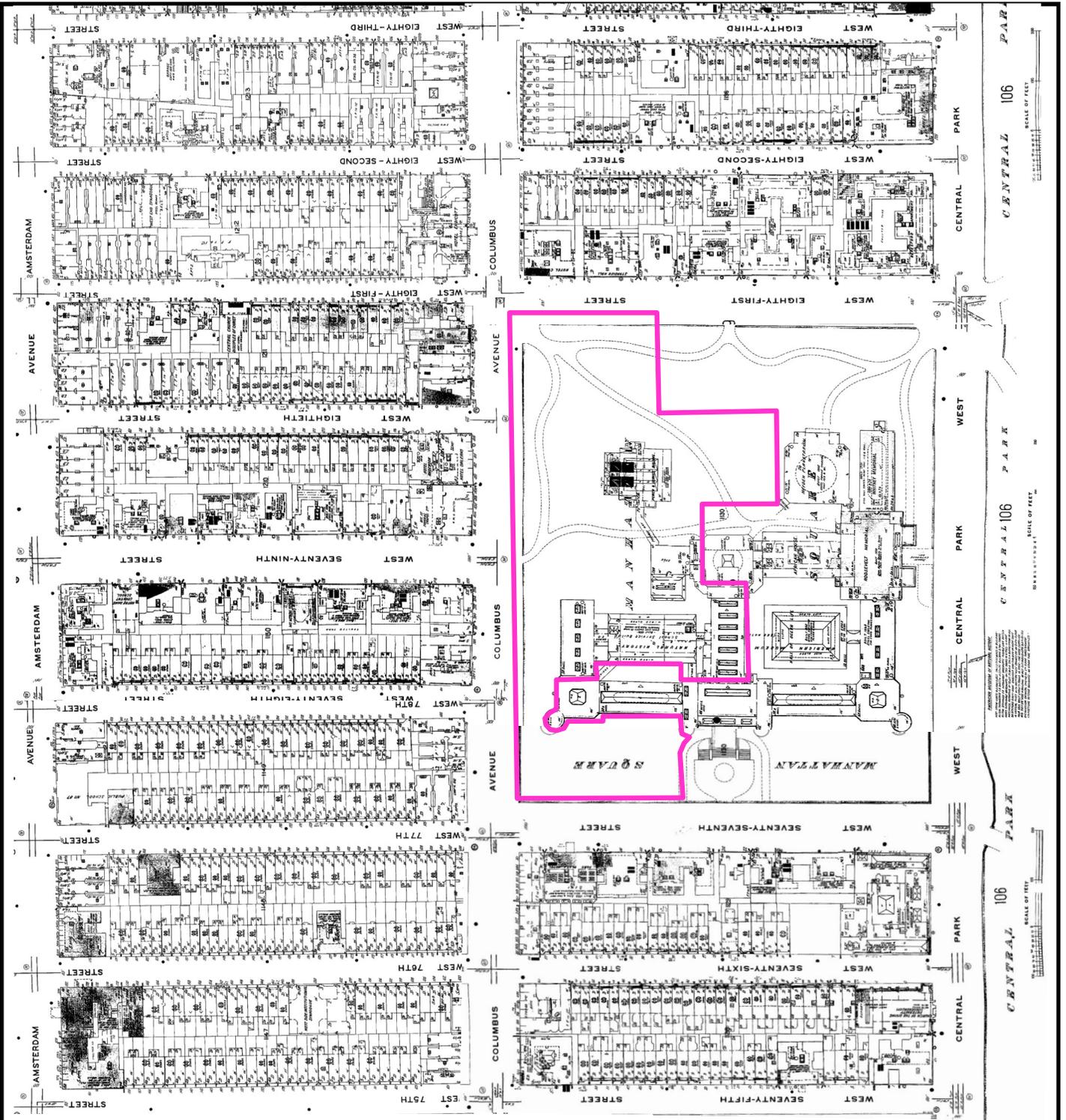
Portions of the American Museum of Natural History and Theodore Roosevelt Park  
New York, New York

**1912 SANBORN MAP**



**Environmental Consultants**  
440 Park Avenue South, New York, N.Y. 10016

|             |          |
|-------------|----------|
| DATE        | 11.16.16 |
| PROJECT No. | 12166    |
| SCALE       | nts      |
| FIGURE      | Appx B   |



**LEGEND:**

— Property Boundary

Portions of the American Museum of Natural History and Theodore Roosevelt Park  
New York, New York

**1951 SANBORN MAP**



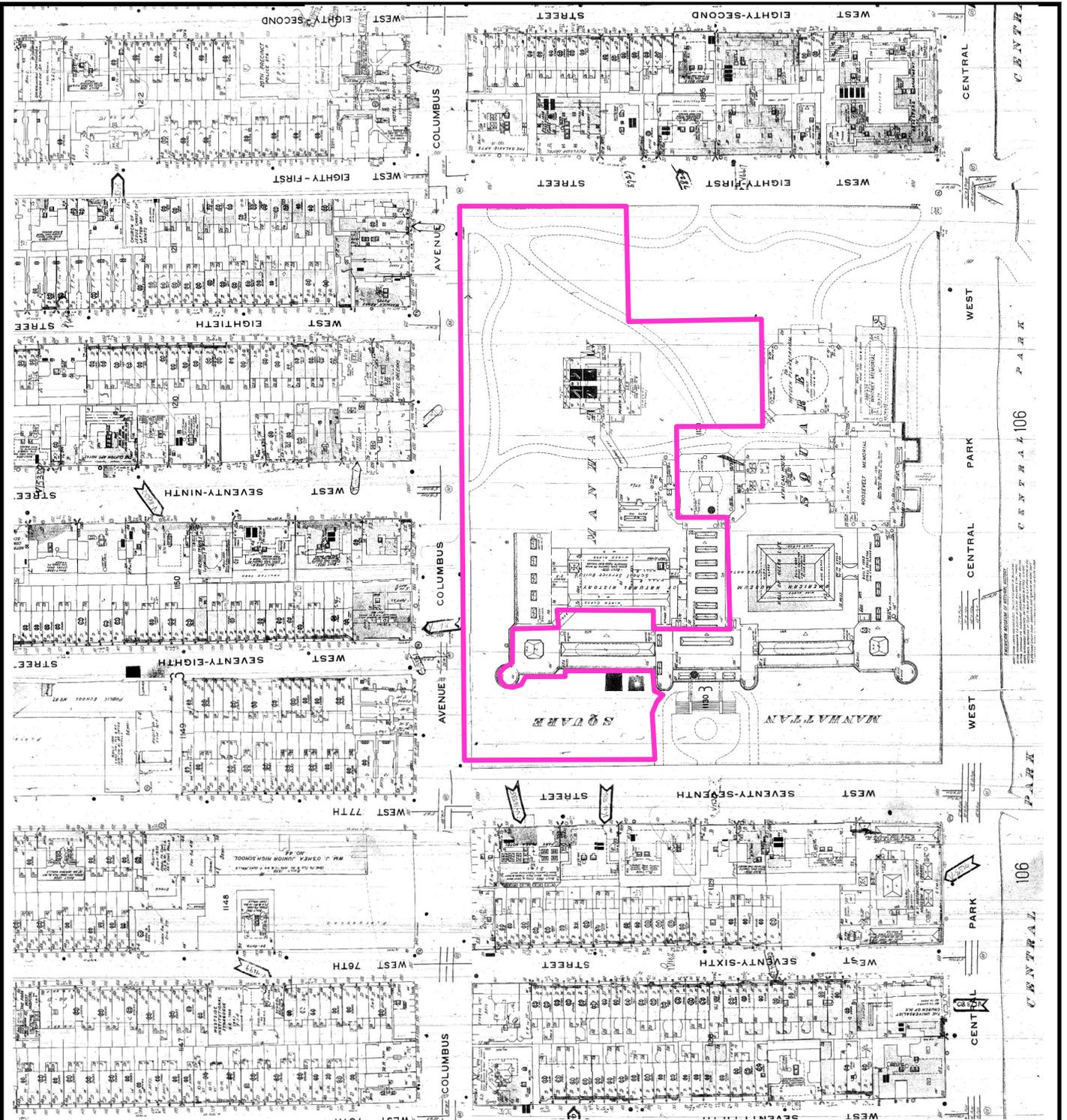
Environmental Consultants  
440 Park Avenue South, New York, N.Y. 10016

DATE  
**11.16.16**

PROJECT No.  
**12166**

SCALE  
**nts**

FIGURE  
**Appx B**



**LEGEND:**

— Property Boundary

Portions of the American Museum of Natural History and Theodore Roosevelt Park  
New York, New York

**1976 SANBORN MAP**



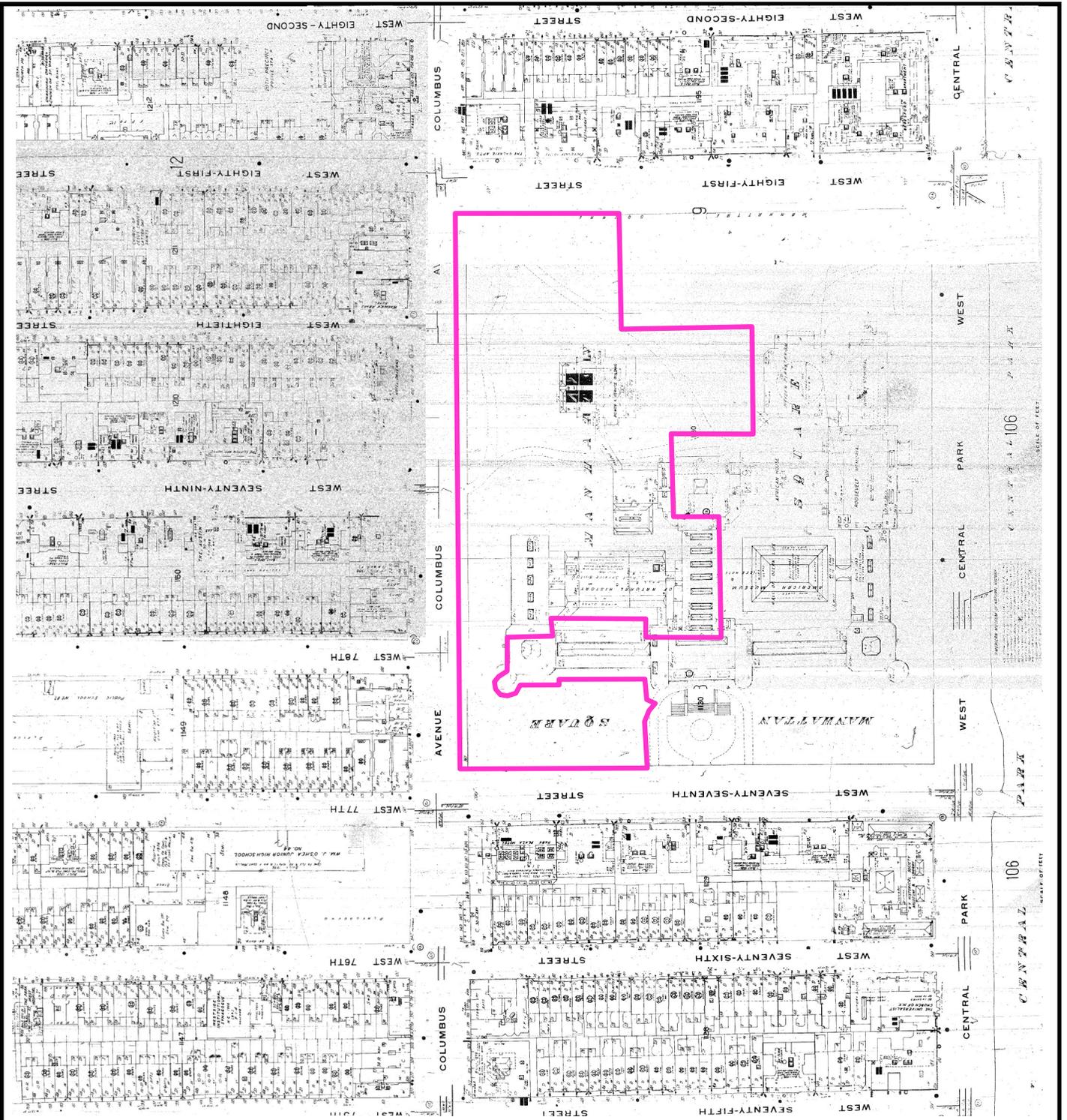
**Environmental Consultants**  
440 Park Avenue South, New York, N.Y. 10016

DATE  
**11.16.16**

PROJECT No.  
**12166**

SCALE  
**nts**

FIGURE  
**Appx B**



**LEGEND:**

— Property Boundary

Portions of the American Museum of Natural History and Theodore Roosevelt Park  
New York, New York

**1989 SANBORN MAP**



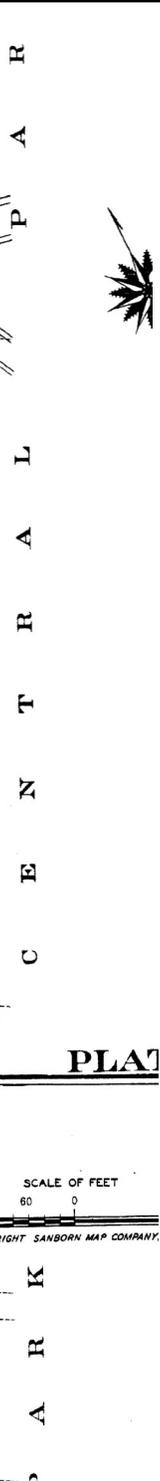
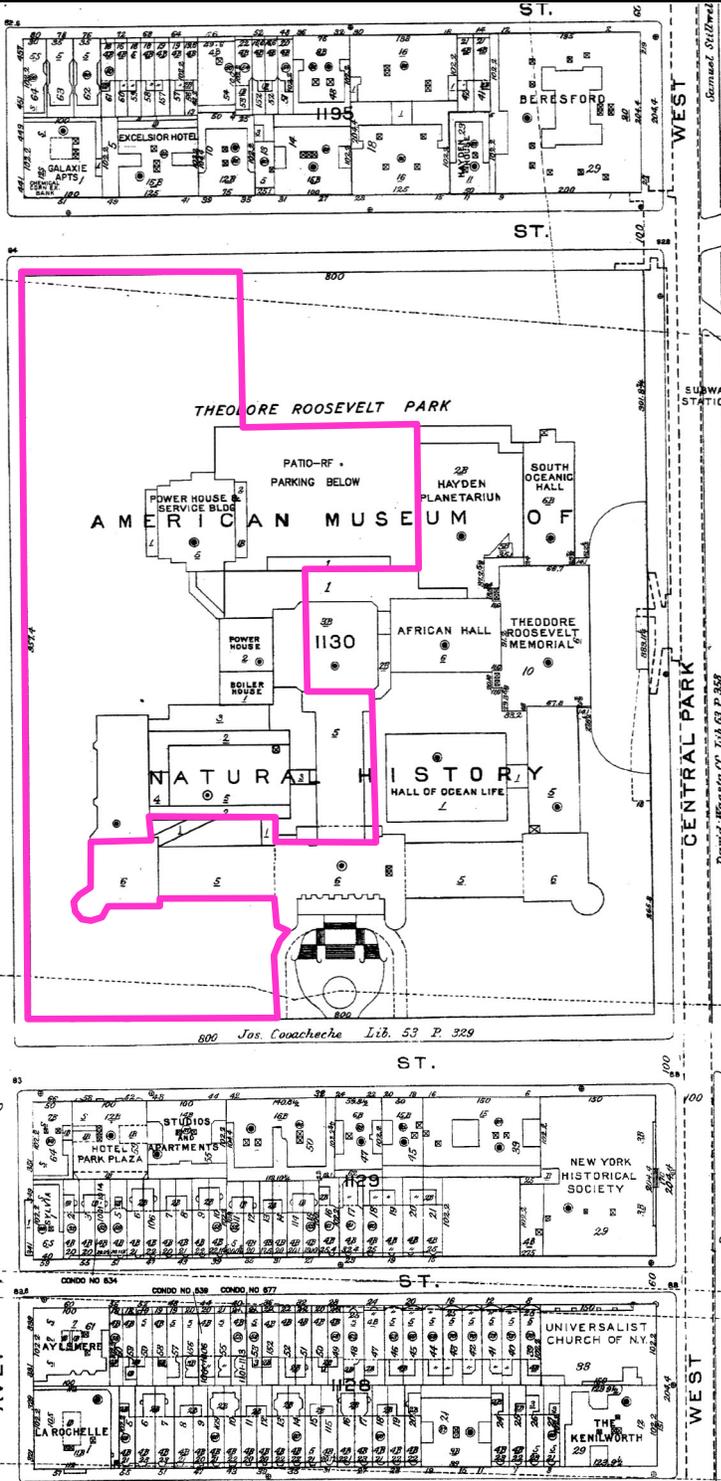
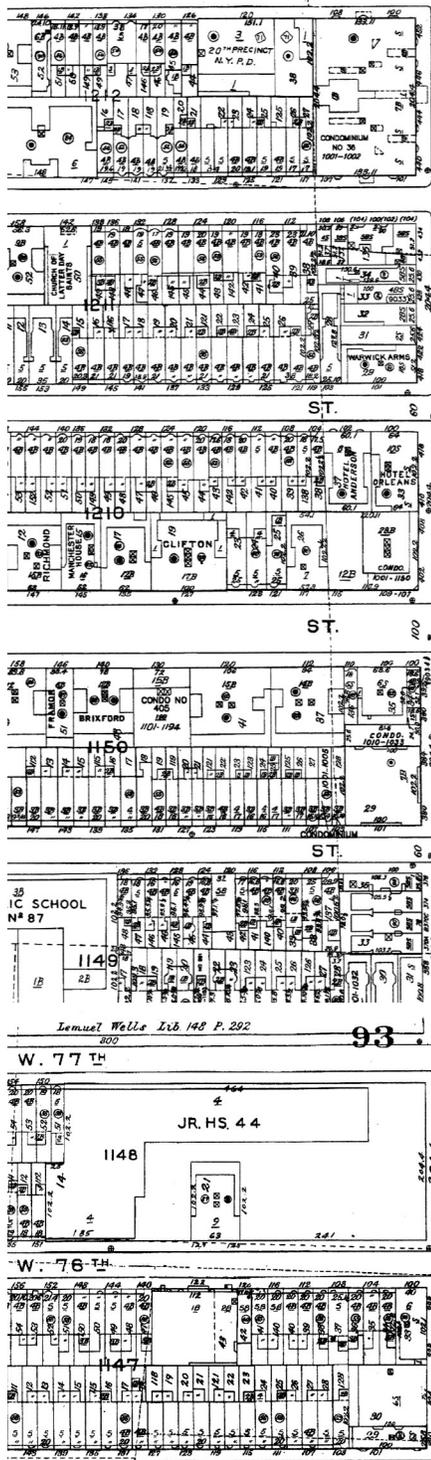
**Environmental Consultants**  
440 Park Avenue South, New York, N.Y. 10016

DATE  
**11.16.16**

PROJECT No.  
**12166**

SCALE  
**nts**

FIGURE  
**Appx B**



**LEGEND:**

— Property Boundary

Portions of the American Museum of Natural History and Theodore Roosevelt Park  
New York, New York

**2007 SANBORN MAP**



**Environmental Consultants**  
440 Park Avenue South, New York, N.Y. 10016

|             |          |
|-------------|----------|
| DATE        | 11.16.16 |
| PROJECT No. | 12166    |
| SCALE       | nts      |
| FIGURE      | Appx B   |

SCALE OF FEET  
60 0  
COPYRIGHT SANBORN MAP COMPANY.

**APPENDIX C**  
**REGULATORY RECORDS REVIEW**

# **T**OXICS TARGETING

## **PHASE I**

### **ENVIRONMENTAL DATABASE REPORT WITH DATA CHANGE TRACKING**

**AMERICAN MUSEUM OF NATURAL HISTORY  
NEW YORK, NY 10024**

AUGUST 1, 2016

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### **Who is Covered**

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**PLEASE REFER TO PAGES ONE AND FIVE FOR A DESCRIPTION OF SOME OF THE LIMITATIONS OF THIS ENVIRONMENTAL REPORT.**

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- *USEPA ERNS Check*
- *Unmappable Sites*
- *Hazardous Waste Codes*
- *Information Source Guide*

## ***Introduction***

*Toxics Targeting* has combined environmental database searches, extensive regulatory analysis and sophisticated mapping techniques to produce your customized *Environmental Report*. It checks for the presence of 25 categories of government-reported toxic sites and provides detailed, up-to-date information on each identified site. The findings of your report are presented in an easy-to-understand format that:

1. ***Maps*** the approximate locations of selected government-reported toxic sites identified on or near a specified target address.
2. ***Estimates*** the distance and direction between the target address and each identified toxic site.
3. ***Reports*** air and water permit non-compliance and other regulatory violations.
4. ***Profiles*** some aspects of the usage, manufacture, storage, handling, transport or disposal of toxic chemicals at individual sites.
5. ***Summarizes*** some potential health effect information and drinking water standards for selected chemicals reported at individual sites.

## ***The Three Sections Of Your Report***

The first section highlights your report's findings by summarizing identified sites according to: **a)** distance intervals, **b)** direction, **c)** proximity to the target address and **d)** individual site categories. In addition, the locations of all identified toxic sites are illustrated on individual maps for each radius search distance used in your report. A close-up map illustrates the locations of all identified toxic sites, at the shortest radius search distance used in your report. Finally, a map of tax parcels and a table of selected information about those parcels are included.

The second section of your report contains *Toxic Site Profiles* that provide detailed information on each identified toxic site. The information in each *Toxic Site Profile* varies according to its source. Some toxic site categories have extensive information and some have limited information. All the information is updated on a regular basis.

The third section of the report contains appendices that identify: **1)** on-site spills reported to the national Emergency Response Notification System (ERNS), **2)** various toxic sites that cannot be mapped due to incomplete or erroneous addresses or other mapping problems, **3)** codes that characterize hazardous wastes reported at various facilities, **4)** methods used to map toxic sites identified in your report and **5)** information sources used in your report.

## ***How to Use Your Report***

- Check Table One to see the number of identified sites by distance intervals.
- Check Table Two to see identified sites sorted by direction.
- Check Table Three to see identified sites ranked by proximity to the target address.
- Check Table Four to see identified sites sorted by site categories.
- Use Table Six to get info for the subject parcel and every parcel found on the Tax Parcel Map
- Refer to the various maps to see the locations of identified toxic sites. Refer to the *Toxic Site Profile* and *Appendix* sections for additional information.

# Report Update Protocol

This updated Environmental Database Report highlights selected site data and location changes identified since the archived Report was generated. Each mapped site is color-coded as:

- **New Site**
- **Site With Data Changes Identified in This Updated Report**
- **Site With Location Changes in This Updated Report**
- **Sites With No Data or Location Changes Identified in This Updated Report**

New sites are highlighted in red. These include sites added to a database or mapped in the area searched by this updated report after the archived report was generated.

Sites with data changes are highlighted in purple. Changes involve data additions or revisions after the original report was generated. Data changes were identified by comparing selected data fields in this updated report with the archived report.

Sites with location changes are highlighted in brown. Location changes include revised map locations of more than five meters (100 meters in Nassau County). For sites mapped in New York City on a parcel-by-parcel basis, changes include map locations moved from the original parcel.

Sites with no data or location changes for selected datafields are highlighted in blue in maps and summary tables. These selected datafields are unchanged from the original report. The text for these site profiles is black.

This updated report searched the following datafields for changes:

## **National Priority List Sites**

- Site description changes
- NPL status changes

## **NYS Inactive Hazardous Waste Disposal Site Registry**

- Class code changes
- Site description changes
- Assessment of environmental problems changes
- Assessment of health problems changes
- Site type changes
- Acreage changes
- Confirmed waste/quantity changes
- Controls
- Projects

## **RCRA Federal Corrective Action Sites**

- Additional corrective actions
- US EPA generator type changes

## **RCRA State Corrective Action Sites**

- Classification code changes
- Site description changes

## **CERCLIS Superfund Sites**

- NFRAP status changes
- Site Description

**Brownfield Sites**

- Classification code changes
- Site description changes
- Assessment of environmental problems changes
- Assessment of health problems changes
- Site type changes
- Acreage changes
- Confirmed waste/quantity changes
- Controls
- Projects

**NYSDEC Solid Waste Facilities/Landfills**

- Status changes

**RCRA Hazardous Waste Treatment, Storage & Disposal Sites**

- US EPA generator type changes
- Additional corrective actions
- Land disposal changes
- Storer changes
- Receives offsite waste changes
- Treatment changes
- Incinerator changes
- Transporter changes
- New waste codes

**NYS Toxic Spills**

- Note: spills includes tank failures, tank test failures, Unknown/Other and “Miscellaneous” categories
- Closed date changes
- Meets standards changes
- New material records
- Investigator remarks changes
- Cause changes
- Spill category/class changes
- Material class changes

**NYS Major Oil Storage Sites**

- Number of tanks changes
- Newly closed tank(s)

**NYS Petroleum Bulk Storage Facilities**

- Site Status changes
- New tanks, tank status changes, tank location changes, tank capacity changes, tank content changes
- Tank install date changes, tank test date changes, tank close date changes

**NYC Petroleum Bulk Storage Facilities**

- Description changes

**RCRA Hazardous Waste Generators & Transporters**

- US EPA generator type changes
- Additional corrective actions
- New waste codes

**Chemical Bulk Storage**

Site Status changes

Number of tanks changes

Newly closed tank(s)

**Toxic Release Inventory Sites**

Status changes

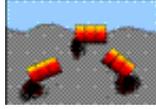
**Civil & Administrative Enforcement Docket Facilities**

New case record(s)

# *Toxic Site Databases Analyzed In Your Report*

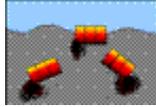
## Search Radius

One-Mile



1) ***National Priority List for Federal Superfund Cleanup***: a listing of sites known to pose environmental or health hazards that are being investigated or cleaned up under the Federal Superfund program.

Half-Mile



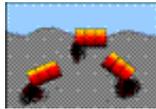
2) ***Delisted National Priority List Sites***: a listing of NPL sites that have been removed from the National Priority List.

One-Mile



3) ***New York Inactive Hazardous Waste Disposal Site Registry***: a state listing of sites that can pose environmental or public health hazards requiring investigation or clean up.

One-Mile



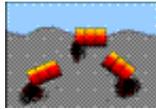
4) ***New York Inactive Hazardous Waste Disposal Site Registry Qualifying***: a state listing of sites that qualify for possible inclusion to the NYDEC Inactive Haz. Waste Disposal Site Registry.

One-Mile



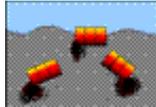
5) ***New York and Federal RCRA Corrective Action Activity (CORRACTS)***: waste facilities with RCRA corrective action activity reported by the USEPA and NYS DEC.

Half-Mile



6) ***CERCLIS*** (Comprehensive Environmental Response, Compensation and Liability Information System): a federal listing of Non-NFRAP sites that can pose environmental or public health hazards requiring investigation or clean up.

Half-Mile



7) ***CERCLIS NFRAP***: a federal listing of CERCLIS sites that have no further remedial action planned.

Half-Mile



8) ***New York State Brownfield Cleanup Sites***: a listing of sites that are abandoned, idled or under-used industrial and commercial sites where expansion or redevelopment is complicated by real or perceived environmental contamination.

Half-Mile



9) ***New York Solid Waste Facilities Registry***: active and inactive landfills, incinerators, transfer stations or other solid waste management facilities.

Half-Mile



10) ***New York City 1934 Solid Waste Sites***: a listing of solid waste disposal sites operated by New York City municipal authorities circa 1934.

Half-Mile



11) ***New York and Federal Hazardous Waste Treatment, Storage or Disposal Facilities:*** sites reported by the NYS manifest system and the USEPA's Resource Conservation and Recovery Act Information System (RCRIS). Also includes the following database:

- ***RCRA violations:*** waste facilities with violations reported by the USEPA pursuant to the Resource Conservation and Recovery Act.

Half-Mile



12) ***Toxic Spills: active and inactive or closed*** spills reported to state environmental authorities, including *remediated* and *unremediated* leaking underground storage tanks. This database includes the following categories:

- Tank Failures
- Tank Test Failures
- Unknown Spill Cause or Other Spill Causes
- Miscellaneous Spill Causes

Eighth-Mile



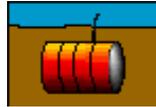
13) ***New York State Major Oil Storage Facilities:*** sites with more than a 400,000 gallon capacity for storing petroleum products.

Eighth-Mile



14) ***New York State Petroleum Bulk Storage Facilities:*** sites with more than an 1,100 gallon capacity for storing petroleum products.

Eighth-Mile



15) ***New York City Fire Dept Tank Data:*** tank data from 1997.

Eighth-Mile



16) ***New York and Federal Hazardous Waste Generators and Transporters:*** sites reported by the NYS manifest system and the USEPA's Resource Conservation and Recovery Act Information System (RCRA). Also includes the following database:

- ***RCRA violations:*** waste facilities with violations reported by the USEPA pursuant to the Resource Conservation and Recovery Act.

Eighth-Mile



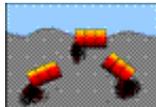
17) ***New York Chemical Bulk Storage Facilities:*** sites storing hazardous substances listed in 6 NYCRR Part 597 in aboveground tanks with capacities of 185 gallons or more and/or underground tanks of any size

Eighth-Mile



18) ***Historic New York City Utility Sites (1890's to 1940's):*** power generating stations, manufactured gas plants, gas storage facilities, maintenance yards and other gas and electric utility sites.

Half-Mile



19) ***New York Hazardous Substance Disposal Site Draft Study:*** a state listing of sites contaminated with toxic substances that can pose environmental or public health hazards. These sites were not eligible for state clean up funding programs.

Eighth-Mile



20) ***Federal Toxic Release Inventory Facilities:*** discharges of selected toxic chemicals to air, land, water or treatment facilities.

Eighth-Mile



21) ***Federal Air Discharges:*** air pollution point sources monitored by U.S. EPA and/or state and local air regulatory agencies.

Eighth-Mile



22) ***Federal Permit Compliance System Toxic Wastewater Discharges:*** permitted toxic wastewater discharges.

Eighth-Mile



23) ***Federal Civil and Administrative Enforcement Docket:*** judiciary cases filed on behalf of the U. S. Environmental Protection Agency by the Department of Justice.

On-site only  
(250 ft)



24) ***New York City Environmental Quality Review (CEQR) – E Designation Sites:*** parcels assigned a special environmental (“E”) designation under the CEQR process. E designation requires specific protocols that must be followed.

Property only



25) ***ERNS: Federal Emergency Response Notification System Spills:*** a listing of federally reported spills.

## *Limitations Of The Information In Your Report*

The information presented in your *Environmental Report* has been obtained from various local, state and federal government agencies. Please be aware that: **1)** additional information on individual sites may be available, **2)** newly discovered sites are continually reported and **3)** all map locations are approximate. As a result, this report is intended to be the **FIRST STEP** in the process of identifying and evaluating possible environmental threats to specific properties and can only serve as a guide for conducting on-site visits or additional, more detailed toxic hazard research.

*Toxics Targeting* tries to ensure that the information in your report is presented accurately and with minimal alteration. Systematic changes are made to correct obvious address errors in order to allow sites to be mapped. Any address changes that are made are noted in the map information section at the top of each corresponding *Toxic Site Profile*. Some information that has been withheld by government authorities remains included in Toxic Site Profiles and is identified as archival information. Since the information presented in your report is not edited, please be aware that it can contain reporting errors or typographical mistakes made by the site owners/operators or government agencies that produced the information. Also please be aware of some other limitations of the information in your report:

- The digital map used by *Toxics Targeting* is the same one used by the U. S. Census or local authorities in New York City. While the map is generally accurate, no map is perfect. In addition, *Toxics Targeting's* mapping methods estimate where toxic site addresses are located if the address is not specifically designated. **FOR THESE REASONS, ALL MAP LOCATIONS OF ADDRESSES AND REPORTED TOXIC SITES SHOULD BE CONSIDERED APPROXIMATE AND SHOULD BE VERIFIED BY ON-SITE VISITS;**
- **UNDISCOVERED, UNREPORTED OR UNMAPPABLE TOXIC SITES MIGHT NOT BE IDENTIFIED BY THIS REPORT'S CHECK OF 25 TOXIC SITE CATEGORIES. TOXIC SITES REPORTED IN OTHER GOVERNMENT DATABASES MIGHT ALSO EXIST. FOR THESE REASONS, YOUR REPORT MIGHT NOT IDENTIFY ALL THE TOXIC SITES THAT EXIST IN THE AREA IT SEARCHES;**
- The appendix of your report contains a listing of sites that could not be mapped due to incomplete or erroneous address information or other mapping problems. This listing includes unmappable toxic sites in the zip codes searched for the report as well as toxic sites without zip codes reported in the same county. **IF YOU WOULD LIKE INFORMATION ON ANY OF THE LISTED SITES, PLEASE CONTACT *TOXICS TARGETING* AND REFER TO THE SITE ID NUMBER.**
- New York State Department of Environmental Conservation Remediation Site Borders are approximate and may not align with tax parcel boundaries mapped by local authorities or the digital map used by the US Census Bureau. As a result, Remediation Site Borders may overlap parcels that do not involve site remediation activities. Selected parcels also can involve multiple Remediation Site Borders. Refer to individual site profiles for more information. Sites without profiles include potential new sites or sites that have not yet been publicly listed by DEC.
- Some toxic sites identified in your report may be classified as **known hazards**. Most of the toxic sites identified in your report involve **potential hazards** related to the on-site use, manufacture, handling, storage, transport or disposal of toxic chemicals. Some of the toxic sites identified in your report may be the addresses of parties responsible for toxic sites located elsewhere. **YOU SHOULD ONLY CONCLUDE THAT TOXIC HAZARDS ACTUALLY EXIST AT A SPECIFIC SITE WHEN GOVERNMENT AUTHORITIES MAKE THAT DETERMINATION OR WHEN THAT CONCLUSION IS FULLY DOCUMENTED BY THE FINDINGS OF AN APPROPRIATE SITE INVESTIGATION UNDERTAKEN BY LICENSED PROFESSIONALS;**

- Compass directions and distances are approximate. Compass directions are calculated from the subject property address to the mapped location of each identified toxic site. The compass direction does not necessarily refer to the closest property boundary of an identified toxic site. The compass direction also can vary substantially for toxic sites that are located very close to the subject property address.
- The information presented in your report is a summary of the information that *Toxics Targeting* obtains from government agencies on reported toxic sites. **YOU MAY BE ABLE TO OBTAIN ADDITIONAL INFORMATION ABOUT REPORTED SITES WITH THE FREEDOM OF INFORMATION REQUEST FORM LETTERS THAT ARE PROVIDED ON THE INSIDE OF THE BACK COVER.**

# Section One:

## Report Summary

- *Table One: Number of Identified Toxic Sites By Distance Interval*
- *Table Two: Identified Toxic Sites By Direction*
- *Table Three: Identified Toxic Sites By Category*
- *Table Four: Identified Toxic Sites By Proximity*
- *Table Five: Report Update Summary*
  
- *Map One: One-Mile Radius Map*
  
- *Map Two: Half-Mile Radius Map*
  
- *Map Three: Eighth-Mile Radius Map*
  
- *Map Four: Eighth-Mile Radius Close up Map*
  
- *Map Five: Tax Parcel Map*
  
- *Table Six: Tax Parcel Map Information Table*

**NUMBER OF IDENTIFIED SITES BY DISTANCE INTERVAL**

| Database Searched                                                       | 0 – 100 ft                                                                                            | 100 ft – 1/8 mi | 1/8 mi – 1/4 mi | 1/4 mi – 1/2 mi | 1/2 mi – 1 mi | Site Category Totals |
|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------|-----------------|-----------------|---------------|----------------------|
| <b>ASTM–Required 1 Mile Search</b>                                      |                                                                                                       |                 |                 |                 |               |                      |
| National Priority List (NPL) Sites                                      | 0                                                                                                     | 0               | 0               | 0               | 0             | 0                    |
| NYS Inactive Hazardous Waste Disposal Site Registry                     | 0                                                                                                     | 0               | 0               | 0               | 0             | 0                    |
| NYS Inactive Haz Waste Disposal Site Registry Qualifying                | 0                                                                                                     | 0               | 0               | 0               | 0             | 0                    |
| RCRA Corrective Action (CORRACTS) Sites                                 | 0                                                                                                     | 0               | 0               | 0               | 0             | 0                    |
| <b>ASTM–Required 1/2 Mile Search</b>                                    |                                                                                                       |                 |                 |                 |               |                      |
| Delisted National Priority List (NPL) Sites                             | 0                                                                                                     | 0               | 0               | 0               | Not searched  | 0                    |
| CERCLIS Superfund Non–NFRAP Sites                                       | 0                                                                                                     | 0               | 0               | 0               | Not searched  | 0                    |
| CERCLIS Superfund NFRAP Sites                                           | 0                                                                                                     | 0               | 0               | 0               | Not searched  | 0                    |
| <b>Brownfields Sites</b>                                                |                                                                                                       |                 |                 |                 |               |                      |
| Voluntary Cleanup Program                                               | 0                                                                                                     | 0               | 0               | 0               | Not searched  | 0                    |
| Environmental Restoration Program                                       | 0                                                                                                     | 0               | 0               | 0               | Not searched  | 0                    |
| Brownfield Cleanup Program                                              | 0                                                                                                     | 0               | 0               | 1               | Not searched  | 1                    |
| NYC Voluntary Cleanup Program                                           | 0                                                                                                     | 0               | 0               | 0               | Not searched  | 0                    |
| NYSDEC Solid Waste Facilities / Landfills                               | 0                                                                                                     | 0               | 0               | 0               | Not searched  | 0                    |
| RCRA Hazardous Waste Treatment, Storage, Disposal Sites                 | 0                                                                                                     | 0               | 0               | 0               | Not searched  | 0                    |
| <b>NYS Toxic Spills</b>                                                 |                                                                                                       |                 |                 |                 |               |                      |
| Active Tank Failures                                                    | 0                                                                                                     | 0               | 0               | 0               | Not searched  | 0                    |
| Active Tank Test Failures                                               | 0                                                                                                     | 0               | 1               | 1               | Not searched  | 2                    |
| Active Spills – Unknown / Other Causes                                  | 0                                                                                                     | 0               | 1               | 2               | Not searched  | 3                    |
| Active Spills – Miscellaneous Causes                                    | 0                                                                                                     | 0               | 0               | 0(4)            | Not searched  | 0(4)                 |
| Closed Tank Failures                                                    | 0                                                                                                     | 3               | 15              | 17              | Not searched  | 35                   |
| Closed Tank Test Failures                                               | 0                                                                                                     | 4               | 12              | 13              | Not searched  | 29                   |
| Closed Spills – Unknown / Other Causes                                  | 2                                                                                                     | 14              | 52              | 95              | Not searched  | 163                  |
| Closed Spills – Miscellaneous Causes                                    | 2                                                                                                     | 44              | 7(76)           | 16(209)         | Not searched  | 69(285)              |
| <b>ASTM–Required Property &amp; Adjacent Property (1/8 Mile Search)</b> |                                                                                                       |                 |                 |                 |               |                      |
| NYS Major Oil Storage Facilities                                        | 0                                                                                                     | 0               | Not searched    | Not searched    | Not searched  | 0                    |
| Local & State Petroleum Bulk Storage Sites                              | 0                                                                                                     | 71              | Not searched    | Not searched    | Not searched  | 71                   |
| RCRA Hazardous Waste Generators & Transporters                          | 18                                                                                                    | 112             | Not searched    | Not searched    | Not searched  | 130                  |
| NYS Chemical Bulk Storage Sites                                         | 0                                                                                                     | 0               | Not searched    | Not searched    | Not searched  | 0                    |
| Historic Utility Facilities                                             | 0                                                                                                     | 0               | Not searched    | Not searched    | Not searched  | 0                    |
| <b>ASTM–Required On–Site Only Search</b>                                |                                                                                                       |                 |                 |                 |               |                      |
| NYC Environmental Quality Review Requirements ("E") Sites*              | 0                                                                                                     | 0               | Not searched    | Not searched    | Not searched  | 0                    |
| Emergency Response Notification System (ERNS)                           | 0                                                                                                     | Not searched    | Not searched    | Not searched    | Not searched  | 0                    |
| Institutional Controls / Engineering Controls (IC/EC)                   | See databases for NPL, CERCLIS, Inactive Hazardous Waste Disposal Site Registry and Brownfield Sites. |                 |                 |                 |               |                      |
| <b>ASTM–Required Databases Distance Interval Totals</b>                 | <b>22</b>                                                                                             | <b>248</b>      | <b>88(76)</b>   | <b>145(213)</b> | <b>0</b>      | <b>503(289)</b>      |

Numbers in ( ) indicate spills not mapped and profiled in this report, and are listed at the end of the active and closed spills sections. See these lists for a description of the parameters involved with identifying these spills.

\* NYC Environmental Quality Review Requirements ("E") Sites were searched at 250 feet.

NOTE: Table continues on next page.

**Non-ASTM Databases 1/2 Mile Search**

|                                          |   |   |   |   |              |   |
|------------------------------------------|---|---|---|---|--------------|---|
| 1934 NYC Municipal Waste Landfills       | 0 | 0 | 0 | 0 | Not searched | 0 |
| Hazardous Substance Waste Disposal Sites | 0 | 0 | 0 | 0 | Not searched | 0 |

**Non-ASTM Databases 1/8 Mile Search**

|                                                            |   |   |              |              |              |   |
|------------------------------------------------------------|---|---|--------------|--------------|--------------|---|
| Toxic Release Inventory Sites (TRI)                        | 0 | 0 | Not searched | Not searched | Not searched | 0 |
| Permit Compliance System (PCS) Toxic Wastewater Discharges | 0 | 0 | Not searched | Not searched | Not searched | 0 |
| Air Discharges                                             | 0 | 1 | Not searched | Not searched | Not searched | 1 |
| Civil & Administrative Enforcement Docket Facilities       | 0 | 0 | Not searched | Not searched | Not searched | 0 |

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|                                                    |          |          |          |          |                     |          |
|----------------------------------------------------|----------|----------|----------|----------|---------------------|----------|
| <b>Non-ASTM Databases Distance Interval Totals</b> | <b>0</b> | <b>1</b> | <b>0</b> | <b>0</b> | <b>Not Searched</b> | <b>1</b> |
|----------------------------------------------------|----------|----------|----------|----------|---------------------|----------|

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|                                        |           |            |               |                 |          |                 |
|----------------------------------------|-----------|------------|---------------|-----------------|----------|-----------------|
| <b><i>Distance Interval Totals</i></b> | <b>22</b> | <b>249</b> | <b>88(76)</b> | <b>145(213)</b> | <b>0</b> | <b>504(289)</b> |
|----------------------------------------|-----------|------------|---------------|-----------------|----------|-----------------|

Numbers in ( ) indicate spills not mapped and profiled in this report, and are listed at the end of the active and closed spills sections. See these lists for a description of the parameters involved with identifying these spills.

# Identified Toxic Sites by Direction

## American Museum of Natural History New York, NY 10024

\* Compass directions can vary substantially for sites located very close to the subject property address.

### Sites less than 100 feet from subject property sorted by distance

| Map Id# | Site Name                           | Site Street                      | Approximate Distance & Direction From Property | Toxic Site Category                     |
|---------|-------------------------------------|----------------------------------|------------------------------------------------|-----------------------------------------|
| 374     | CONSOLIDATED EDISON                 | WEST 80 ST & COLUMBUS AVE        | 49 feet to the N*                              | Hazardous Waste Generator/Transporter   |
| 375     | CON EDISON                          | W 80TH ST & COLUMBUS AVE         | 49 feet to the N*                              | Hazardous Waste Generator/Transporter   |
| 71      | INTERSECTION                        | W. 79TH ST. & COLUMBUS AVE.      | 50 feet to the W*                              | Closed Status Spill (Unk/Other Cause)   |
| 234     | VAULT 7264                          | COLUMBUS AV AT W 79 ST           | 50 feet to the W*                              | Closed Status Spill (Misc. Spill Cause) |
| 376     | CON EDISON                          | NWC 79 ST & COLUMBUS AVE         | 50 feet to the W*                              | Hazardous Waste Generator/Transporter   |
| 377     | CON EDISON                          | SWC 79 & COLUMBUS AVE            | 50 feet to the W*                              | Hazardous Waste Generator/Transporter   |
| 378     | CON EDISON                          | NWC 79 ST & COLUMBUS AVE         | 50 feet to the W*                              | Hazardous Waste Generator/Transporter   |
| 379     | CON EDISON                          | SWC 79 ST & COLUMBUS AVE         | 50 feet to the W*                              | Hazardous Waste Generator/Transporter   |
| 380     | CON EDISON                          | 18-120 79 ST & COLUMBUS AVE      | 50 feet to the W*                              | Hazardous Waste Generator/Transporter   |
| 235     | COLUMBIS AVE                        | W. 78TH ST                       | 51 feet to the SW*                             | Closed Status Spill (Misc. Spill Cause) |
| 381     | CON EDISON                          | FO 51-7 W 81 ST EO COLUMBUS AVE  | 74 feet to the NNE*                            | Hazardous Waste Generator/Transporter   |
| 382     | CON EDISON                          | FO 426-428 COLUMBUS AVE NO 80 ST | 75 feet to the N*                              | Hazardous Waste Generator/Transporter   |
| 383     | CON EDISON                          | FO 430-32 COLUMBUS AVE NO 80 ST  | 75 feet to the N*                              | Hazardous Waste Generator/Transporter   |
| 384     | CON EDISON                          | FO 422-424 COLUMBUS AVE          | 76 feet to the N*                              | Hazardous Waste Generator/Transporter   |
| 72      | 204936; NE W 77 ST COLUMBUS AV      | NE W 77 ST COLUMBUS AV           | 79 feet to the SW*                             | Closed Status Spill (Unk/Other Cause)   |
| 385     | CONED                               | W 77TH ST & COLUMBUS AVE         | 79 feet to the SW*                             | Hazardous Waste Generator/Transporter   |
| 386     | CONSOLIDATED EDISON SB51914         | W 77 ST AND COLUMBUS AVE         | 79 feet to the SW*                             | Hazardous Waste Generator/Transporter   |
| 387     | CONSOLIDATED EDISON COMPANY OF NY   | N/W/C W 77TH ST AND CENTRAL PA   | 79 feet to the SW*                             | Hazardous Waste Generator/Transporter   |
| 388     | CONSOLIDATED EDISON                 | N/E COLUMBUS & 77 ST             | 79 feet to the SW*                             | Hazardous Waste Generator/Transporter   |
| 389     | CON EDISON                          | NW COLUMBUS & 77 ST              | 79 feet to the SW*                             | Hazardous Waste Generator/Transporter   |
| 390     | AMERICAN MUSEUM OF NATIONAL HISTORY | 79TH STREET & COLUMBIA           | 86 feet to the SE*                             | Hazardous Waste Generator/Transporter   |
| 391     | AMERICAN MUSEUM OF NATURAL HISTORY  | CENTRAL PARK W & 79TH ST         | 86 feet to the SE*                             | Hazardous Waste Generator/Transporter   |

### Sites between 100 ft and 400 ft from the subject property sorted by direction and distance

| Map Id# | Site Name             | Site Street                     | Approximate Distance & Direction From Property | Toxic Site Category                     |
|---------|-----------------------|---------------------------------|------------------------------------------------|-----------------------------------------|
| 239     | 430 COLUMBUS AVE      | 430 COLUMBUS AVE                | 164 feet to the N*                             | Closed Status Spill (Misc. Spill Cause) |
| 240     | 430 COLUMBUS AVE      | 430 COLUMBUS AVE                | 164 feet to the N*                             | Closed Status Spill (Misc. Spill Cause) |
| 245     | 106 WEST 81ST ST/MANH | 106 WEST 81ST STREET            | 203 feet to the N                              | Closed Status Spill (Misc. Spill Cause) |
| 402     | CON EDISON            | 108 W 81 ST                     | 218 feet to the N                              | Hazardous Waste Generator/Transporter   |
| 403     | CON EDISON            | FO 108 W 81 ST EO AMSTERDAM AVE | 224 feet to the N                              | Hazardous Waste Generator/Transporter   |
| 404     | CON EDISON            | 442 COLUMBUS AVE                | 226 feet to the N                              | Hazardous Waste Generator/Transporter   |

|     |                                    |                                 |                      |                                         |
|-----|------------------------------------|---------------------------------|----------------------|-----------------------------------------|
| 413 | CON EDISON                         | FO 112 W 81 ST EO AMSTERDAM AVE | 265 feet to the N    | Hazardous Waste Generator/Transporter   |
| 327 | ENDICOTT COMMERCIAL UNIT           | 440 COLUMBUS AVENUE             | 288 feet to the N    | Petroleum Bulk Storage Site             |
| 328 | ENDICOTT APARTMENT CORP.           | 101 WEST 81ST STREET            | 288 feet to the N    | Petroleum Bulk Storage Site             |
| 77  | GURBUZ RESIDENCE                   | 101 WEST 81ST ST APT 103        | 293 feet to the N    | Closed Status Spill (Unk/Other Cause)   |
| 252 | 101 WEST 81ST ST                   | 101 WEST 81ST ST                | 293 feet to the N    | Closed Status Spill (Misc. Spill Cause) |
| 253 | ENDICOTT APARTMENT CORP.           | 101 WEST 81ST STREET            | 293 feet to the N    | Closed Status Spill (Misc. Spill Cause) |
| 254 | APART                              | 101 WEST 81ST STREET            | 293 feet to the N    | Closed Status Spill (Misc. Spill Cause) |
| 255 | BASEMENT SPILL                     | 446 COLUMBUS AV                 | 293 feet to the N    | Closed Status Spill (Misc. Spill Cause) |
| 394 | ADLERS CLEANERS                    | 445 COLUMBUS AVE                | 132 feet to the NNE* | Hazardous Waste Generator/Transporter   |
| 395 | JEFAN CLEANING SERVICE             | 445 COLUMBUS AVENUE             | 132 feet to the NNE* | Hazardous Waste Generator/Transporter   |
| 398 | CON EDISON                         | FO 441 COLUMBUS AVE NO 81 ST    | 144 feet to the NNE* | Hazardous Waste Generator/Transporter   |
| 73  | 51 WEST 81ST ST                    | 51 WEST 81ST ST                 | 157 feet to the NNE* | Closed Status Spill (Unk/Other Cause)   |
| 315 | 51 WEST 81ST CORP.                 | 51 WEST 81ST ST                 | 165 feet to the NNE* | Petroleum Bulk Storage Site             |
| 400 | CON EDISON                         | FO 440 COLUMBUS AVE NO 81 ST    | 205 feet to the NNE  | Hazardous Waste Generator/Transporter   |
| 401 | CON EDISON                         | FO 446 COLUMBUS AVE             | 205 feet to the NNE  | Hazardous Waste Generator/Transporter   |
| 43  | APT BLDG TTF                       | 74 WEST 82ND ST                 | 253 feet to the NNE  | Closed Status Tank Test Failure         |
| 249 | HOME/APT                           | 74 WEST 82 ST                   | 253 feet to the NNE  | Closed Status Spill (Misc. Spill Cause) |
| 325 | WALBER 82ND STREET ASSOCIATES      | 80 WEST 82ND ST                 | 259 feet to the NNE  | Petroleum Bulk Storage Site             |
| 421 | CON EDISON                         | W 82 ST LO COLUMBUS AVE         | 335 feet to the NNE  | Hazardous Waste Generator/Transporter   |
| 422 | CON EDISON                         | 468 82ND ST & COLUMBUS AVE      | 335 feet to the NNE  | Hazardous Waste Generator/Transporter   |
| 423 | CON EDISON                         | W 82 ST & COLUMBUS AV           | 335 feet to the NNE  | Hazardous Waste Generator/Transporter   |
| 424 | CON EDISON                         | N/E/C 82 ST & COLUMBUS AVE      | 335 feet to the NNE  | Hazardous Waste Generator/Transporter   |
| 333 | ALEIDA REALTY CRP                  | 73 W 82 ST                      | 381 feet to the NNE  | Petroleum Bulk Storage Site             |
| 436 | CONED                              | 101 W 82 STREET AND COLUMBUS A  | 386 feet to the NNE  | Hazardous Waste Generator/Transporter   |
| 392 | CONSOLIDATED EDISON                | V0062 – 41–49 W 81ST            | 129 feet to the NE*  | Hazardous Waste Generator/Transporter   |
| 393 | CON EDISON                         | FO 41 W 81 ST EO COLUMBUS AVE   | 129 feet to the NE*  | Hazardous Waste Generator/Transporter   |
| 237 | PVT DWELLING/APT. COMPLEX          | 45 WEST 81 ST                   | 155 feet to the NE*  | Closed Status Spill (Misc. Spill Cause) |
| 238 | EXCELSIOR HOTEL                    | 45 WEST 81ST STREET             | 155 feet to the NE*  | Closed Status Spill (Misc. Spill Cause) |
| 314 | THE EXCELSIOR HOTEL                | 45 WEST 81 STREET               | 162 feet to the NE*  | Petroleum Bulk Storage Site             |
| 75  | SERVICE BOX 4414                   | 35 WEST 81ST ST                 | 172 feet to the NE*  | Closed Status Spill (Unk/Other Cause)   |
| 244 | BASEMENT                           | 35 WEST 81ST ST                 | 172 feet to the NE*  | Closed Status Spill (Misc. Spill Cause) |
| 318 | 81ST DWELLERS                      | 35 WEST 81ST ST                 | 185 feet to the NE*  | Petroleum Bulk Storage Site             |
| 246 | SPILL NUMBER 0200505               | 25 W 81ST ST                    | 242 feet to the NE   | Closed Status Spill (Misc. Spill Cause) |
| 247 | 64 WEST 82ND ST/MANH               | 64 WEST 82ND STREET             | 252 feet to the NE   | Closed Status Spill (Misc. Spill Cause) |
| 324 | 25 WEST 81ST STREET LLC            | 25 WEST 81ST STREET             | 258 feet to the NE   | Petroleum Bulk Storage Site             |
| 78  | SPILL NUMBER 0401041               | 32 WEST 82ND ST                 | 327 feet to the NE   | Closed Status Spill (Unk/Other Cause)   |
| 256 | SIDEWALK                           | 32 WEST 82ND ST                 | 327 feet to the NE   | Closed Status Spill (Misc. Spill Cause) |
| 257 | SPILL NUMBER 0104721               | 32 WEST 82ND ST                 | 327 feet to the NE   | Closed Status Spill (Misc. Spill Cause) |
| 330 | 3282 OWNERS CORP.                  | 32 WEST 82ND STREET             | 342 feet to the NE   | Petroleum Bulk Storage Site             |
| 407 | RUDIN MGMT CO /25 WEST 81 STREET   | 25 WEST 81 STREET               | 245 feet to the ENE  | Hazardous Waste Generator/Transporter   |
| 262 | APARTMENT                          | 15 WEST 81ST ST                 | 361 feet to the ENE  | Closed Status Spill (Misc. Spill Cause) |
| 435 | CON EDISON                         | 20 WEST 82ND STREET             | 374 feet to the ENE  | Hazardous Waste Generator/Transporter   |
| 334 | 15 W 81ST ST TENANTS CORP          | 15 W 81ST ST                    | 394 feet to the ENE  | Petroleum Bulk Storage Site             |
| 303 | AMERICAN MUSEUM OF NATURAL HISTORY | 200 CENTRAL PARK WEST           | 111 feet to the ESE* | Petroleum Bulk Storage Site             |
| 304 | AMERICAN MUSEUM OF NATUR           | 179 CENTRAL PARK W              | 111 feet to the ESE* | Petroleum Bulk Storage Site             |
| 326 | 4077 OWNERS CORP                   | 40 WEST 77 ST                   | 262 feet to the S    | Petroleum Bulk Storage Site             |
| 260 | MARBOROS REALTY                    | 22 WEST 77TH ST                 | 353 feet to the S    | Closed Status Spill (Misc. Spill Cause) |
| 261 | SPILL NUMBER 0211129               | 22 WEST 77TH ST                 | 353 feet to the S    | Closed Status Spill (Misc. Spill Cause) |

|     |                                         |                                 |                      |                                         |
|-----|-----------------------------------------|---------------------------------|----------------------|-----------------------------------------|
| 332 | 22 WEST 77TH STREET                     | 22 WEST 77TH STREET             | 357 feet to the S    | Petroleum Bulk Storage Site             |
| 437 | CONSOLIDATED EDISON                     | 25 W 76TH ST                    | 388 feet to the S    | Hazardous Waste Generator/Transporter   |
| 438 | CON EDISON                              | 25 W 76 ST                      | 388 feet to the S    | Hazardous Waste Generator/Transporter   |
| 306 | PARC 77                                 | 50-52 WEST 77TH STREET          | 129 feet to the SSW* | Petroleum Bulk Storage Site             |
| 243 | APT. BUILDING                           | 44 WEST 77TH ST                 | 166 feet to the SSW* | Closed Status Spill (Misc. Spill Cause) |
| 316 | PARK 44 CORP                            | 44 WEST 77TH STREET             | 169 feet to the SSW* | Petroleum Bulk Storage Site             |
| 399 | PARK 44 CORPORATION                     | 44 W 77TH ST                    | 200 feet to the SSW  | Hazardous Waste Generator/Transporter   |
| 322 | 341 COLUMBUS REALTY CO. LLC             | 59 WEST 76TH STREET             | 247 feet to the SSW  | Petroleum Bulk Storage Site             |
| 7   | 53 W 76TH ST CONDOMINIUM                | 53 W 76TH ST                    | 252 feet to the SSW  | Closed Status Tank Failure              |
| 248 | 55 WEST 76TH STREET                     | 55 WEST 76TH STREET             | 253 feet to the SSW  | Closed Status Spill (Misc. Spill Cause) |
| 250 | 57 W. 76TH STREET                       | 57 W. 76TH STREET               | 253 feet to the SSW  | Closed Status Spill (Misc. Spill Cause) |
| 412 | CONSOLIDATED EDISON                     | 345 COLUMBUS AVE                | 260 feet to the SSW  | Hazardous Waste Generator/Transporter   |
| 425 | CONSOLIDATED EDISON                     | F/O 43 W 76 E/O COLUMBUS AVE    | 336 feet to the SSW  | Hazardous Waste Generator/Transporter   |
| 79  | SPILL NUMBER 0313030                    | 31 WEST 76TH STREET             | 338 feet to the SSW  | Closed Status Spill (Unk/Other Cause)   |
| 335 | 60 WEST 76TH STREET                     | 60 WEST 76TH STREET             | 394 feet to the SSW  | Petroleum Bulk Storage Site             |
| 307 | 64-66 W 77 ST                           | 66 WEST 77TH STREET             | 140 feet to the SW*  | Petroleum Bulk Storage Site             |
| 236 | SPILL NUMBER 9906118                    | 66 WEST 77TH ST                 | 143 feet to the SW*  | Closed Status Spill (Misc. Spill Cause) |
| 317 | THE MUSEUM 77 CONDOMINIUM               | 105 WEST 77TH STREET            | 184 feet to the SW*  | Petroleum Bulk Storage Site             |
| 410 | CON EDISON                              | FO 343 COLUMBUS AVE NO 76 ST    | 258 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 411 | CON EDISON                              | OPP 341 COLUMBUS AVE & 76 ST    | 259 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 329 | INTERMEDIATE SCHOOL 44 - MANHATTAN M044 | 100 WEST 77TH STREET            | 304 feet to the SW   | Petroleum Bulk Storage Site             |
| 417 | CON ED                                  | 340 COLUMBUS AVE                | 325 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 418 | CON ED                                  | 340 COLUMBUS AVE                | 325 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 419 | NYC DEPT OF EDUCATION - I S 44M         | 100 W 77TH ST                   | 325 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 259 | COLUMBUS AVE & 76TH ST                  | COLUMBUS AVE & 76TH ST          | 337 feet to the SW   | Closed Status Spill (Misc. Spill Cause) |
| 426 | CONSOLIDATED EDISON                     | 76 ST & COLUMBUS AVE V6001      | 337 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 427 | CON EDISON                              | NWC 76 ST & COLUMBUS AVE        | 337 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 428 | CON EDISON                              | W 76 ST & COLUMBUS AVE          | 337 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 429 | CON EDISON                              | W 76 ST & COLUMBUS AV           | 337 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 430 | CON EDISON                              | 76TH ST & COLUMBUS AVE          | 337 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 431 | CON ED                                  | N/W/C 76 ST & COLUMBUS AVE      | 337 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 396 | EVELYN BUILDING THE                     | 101 W 78TH ST                   | 141 feet to the WSW* | Hazardous Waste Generator/Transporter   |
| 310 | JOBEN REALTY ASSOC                      | 101 W. 78TH ST                  | 149 feet to the WSW* | Petroleum Bulk Storage Site             |
| 312 | 370 COLUMBUS REALTY LLC                 | 370 COLUMBUS AVE                | 152 feet to the WSW* | Petroleum Bulk Storage Site             |
| 74  | ONE GALLON FUEL OIL SPILL ON CONCRETE   | 101 WEST 78TH STREET            | 164 feet to the WSW* | Closed Status Spill (Unk/Other Cause)   |
| 241 | SPILL NUMBER 9802899                    | 101 WEST 78TH ST                | 164 feet to the WSW* | Closed Status Spill (Misc. Spill Cause) |
| 242 | APARTMENT BLDG                          | 101 W 78TH ST                   | 164 feet to the WSW* | Closed Status Spill (Misc. Spill Cause) |
| 414 | CONSOLIDATED EDISON                     | 115 W 77TH ST                   | 267 feet to the WSW  | Hazardous Waste Generator/Transporter   |
| 416 | CON EDISON                              | FO 114 W 78 ST EO AMSTERDAM AVE | 299 feet to the WSW  | Hazardous Waste Generator/Transporter   |
| 258 | PUBLIC SCHOOL 44                        | 100 WEST 77TH ST                | 336 feet to the WSW  | Closed Status Spill (Misc. Spill Cause) |
| 311 | 102 WEST ASSOCIATES                     | 102 WEST 79 STREET              | 151 feet to the W*   | Petroleum Bulk Storage Site             |
| 42  | BLDG                                    | 102 WEST 79TH ST                | 165 feet to the W*   | Closed Status Tank Test Failure         |
| 323 | 118 TENANTS CORP                        | 118 WEST 79TH STREET            | 247 feet to the W    | Petroleum Bulk Storage Site             |
| 76  | 118 W 79TH ST/MANHATTAN                 | 118 WEST 79TH STREET            | 262 feet to the W    | Closed Status Spill (Unk/Other Cause)   |
| 415 | CON EDISON                              | 113 W 78 ST                     | 291 feet to the W    | Hazardous Waste Generator/Transporter   |
| 432 | CON EDISON                              | 120-28 W 79 & COLUMBUS AVE      | 339 feet to the W    | Hazardous Waste Generator/Transporter   |
| 331 | ENNISMORE APARTMENTS INC                | 124 WEST 79TH STREET            | 347 feet to the W    | Petroleum Bulk Storage Site             |
| 80  | ENNISMORE APARTMENTS INC                | 124 WEST 79TH ST                | 362 feet to the W    | Closed Status Spill (Unk/Other Cause)   |
| 408 | CON EDISON                              | FO 118 W 79 ST EO AMSTERDAM AVE | 246 feet to the WNW  | Hazardous Waste Generator/Transporter   |

|     |                                |                                 |                      |                                         |
|-----|--------------------------------|---------------------------------|----------------------|-----------------------------------------|
| 409 | CON EDISON                     | FO 117 W 79 ST EO AMSTERDAM AVE | 251 feet to the WNW  | Hazardous Waste Generator/Transporter   |
| 8   | 123 W. 79TH STREET             | 123 W. 79TH STREET              | 315 feet to the WNW  | Closed Status Tank Failure              |
| 433 | CON EDISON                     | FO 120 W 79 ST EO AMSTERDAM AVE | 347 feet to the WNW  | Hazardous Waste Generator/Transporter   |
| 313 | THE PARK BELVEDERE CONDOMINIUM | 101 WEST 79TH STREET            | 157 feet to the NW*  | Petroleum Bulk Storage Site             |
| 319 | 102 WEST 80TH ST               | 102 WEST 80TH ST                | 192 feet to the NW*  | Petroleum Bulk Storage Site             |
| 405 | CONSOLIDATED EDISON            | 104 WEST 80 STREET              | 230 feet to the NW   | Hazardous Waste Generator/Transporter   |
| 406 | CONSOLIDATED EDISON            | 104 WEST 80 STREET              | 230 feet to the NW   | Hazardous Waste Generator/Transporter   |
| 321 | D L R H ASSOC                  | 117 WEST 79TH ST                | 246 feet to the NW   | Petroleum Bulk Storage Site             |
| 251 | 108 WEST 80TH ST/MANH          | 108 WEST 80TH STREET            | 272 feet to the NW   | Closed Status Spill (Misc. Spill Cause) |
| 305 | THE ORLEANS                    | 100 WEST 80TH STREET            | 129 feet to the NNW* | Petroleum Bulk Storage Site             |
| 397 | CON EDISON                     | 420 COLUMBUS & 80 ST            | 143 feet to the NNW* | Hazardous Waste Generator/Transporter   |
| 308 | 101 WEST 80TH OWNERS CORP      | 101 WEST 80TH STREET            | 146 feet to the NNW* | Petroleum Bulk Storage Site             |
| 309 | 101 W 80 OWNERS CORP           | 101 W 80 ST                     | 146 feet to the NNW* | Petroleum Bulk Storage Site             |
| 320 | WEST 80 ST ASSOCIATES          | 103 W 80 ST                     | 212 feet to the NNW  | Petroleum Bulk Storage Site             |
| 420 | CON EDISON                     | 129 W 80TH ST & AMSTERDAM AV    | 332 feet to the NNW  | Hazardous Waste Generator/Transporter   |
| 434 | CONSOLIDATED EDISON            | 122 WEST 81 STREET              | 362 feet to the NNW  | Hazardous Waste Generator/Transporter   |

### Sites equal to or greater than 400 ft from subject property sorted by direction and distance

| Map Id# | Site Name                    | Site Street                    | Approximate Distance & Direction From Property | Toxic Site Category                     |
|---------|------------------------------|--------------------------------|------------------------------------------------|-----------------------------------------|
| 338     | 20TH PCT                     | 120 WEST 82ND STREET           | 410 feet to the N                              | Petroleum Bulk Storage Site             |
| 44      | 20 PRECINCT NYPD -DDC        | 120 WEST 82ND STREET           | 416 feet to the N                              | Closed Status Tank Test Failure         |
| 45      | 20 PRECINCT NYPD -DDC        | 120 WEST 82ND STREET           | 416 feet to the N                              | Closed Status Tank Test Failure         |
| 81      | 20 RECINCT NYPD -DDC         | 120 WEST 82ND STREET           | 416 feet to the N                              | Closed Status Spill (Unk/Other Cause)   |
| 451     | CON EDISON                   | 111 W 82 ST                    | 471 feet to the N                              | Hazardous Waste Generator/Transporter   |
| 347     | WEST 82ND OWNERS CORPORATION | 107-111 WEST 82ND STREET       | 503 feet to the N                              | Petroleum Bulk Storage Site             |
| 348     | 107-111 W.82 ST.ASSOC.       | 109 W 82 ST                    | 503 feet to the N                              | Petroleum Bulk Storage Site             |
| 361     | FDNY ENGINE CO. 74           | 120 WEST 83RD STREET           | 608 feet to the N                              | Petroleum Bulk Storage Site             |
| 367     | RESIDENTIAL BLDG             | 127 W 82 ST                    | 628 feet to the N                              | Petroleum Bulk Storage Site             |
| 368     | GREYSTONE CONDOMINIUM        | 127 WEST 82ND STREET           | 628 feet to the N                              | Petroleum Bulk Storage Site             |
| 502     | CON EDISON                   | FO 109 W 83 ST & AMSTERDAM AVE | 654 feet to the N                              | Hazardous Waste Generator/Transporter   |
| 47      | WEST 83RD ST REALITY CORP    | 146 WEST 83RD ST               | 792 feet to the N                              | Closed Status Tank Test Failure         |
| 97      | PARKING GARAGE               | 150 WEST 83RD STREET           | 850 feet to the N                              | Closed Status Spill (Unk/Other Cause)   |
| 49      | APT BLDG                     | 150 WEST 84TH ST               | 1017 feet to the N                             | Closed Status Tank Test Failure         |
| 52      | LEWIS BRANDEIS HIGH SCHOO    | 145 WEST 84TH STREET           | 1132 feet to the N                             | Closed Status Tank Test Failure         |
| 290     | APARTMENT BUILDING           | 203 W. 85TH ST.                | 1630 feet to the N                             | Closed Status Spill (Misc. Spill Cause) |
| 162     | MANHOLE #25950               | 86TH ST & AMSTERDAM AV         | 1699 feet to the N                             | Closed Status Spill (Unk/Other Cause)   |
| 165     | DRUM RUN                     | 213 WEST 85TH STREET           | 1731 feet to the N                             | Closed Status Spill (Unk/Other Cause)   |
| 64      | 176 WEST 87TH STREET         | 176 WEST 87TH STREET           | 1824 feet to the N                             | Closed Status Tank Test Failure         |
| 203     | VERIZON MANHOLE              | WEST 87TH ST & BROADWAY        | 2195 feet to the N                             | Closed Status Spill (Unk/Other Cause)   |
| 34      | 205 W 88TH ST/MANHATTAN      | 205 WEST 88TH STREET           | 2308 feet to the N                             | Closed Status Tank Failure              |
| 1       | 267-273 WEST 87TH STREET     | 267-273 WEST 87TH STREET       | 2415 feet to the N                             | Brownfields Site                        |
| 219     | PARKING GARAGE               | 267-273 W87 ST                 | 2422 feet to the N                             | Closed Status Spill (Unk/Other Cause)   |
| 36      | TRANSFORMER VAULT #5535      | 210 W 89TH ST                  | 2441 feet to the N                             | Closed Status Tank Failure              |
| 37      | APT BUILDING                 | 210 WEST 89TH ST               | 2441 feet to the N                             | Closed Status Tank Failure              |
| 221     | 210 WEST 89TH ST VAULT #5535 | 210 WEST 89 TH ST              | 2441 feet to the N                             | Closed Status Spill (Unk/Other Cause)   |
| 222     | MANHOLE 5535                 | 210 WEST 89TH ST               | 2441 feet to the N                             | Closed Status Spill (Unk/Other Cause)   |

|     |                                |                               |                      |                                         |
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| 229 | AMSTERDAM AV                   | BET W.89TH & W.90TH ST        | 2528 feet to the N   | Closed Status Spill (Unk/Other Cause)   |
| 231 | SPILL NUMBER 0202046           | 574 WEST END AV               | 2570 feet to the N   | Closed Status Spill (Unk/Other Cause)   |
| 439 | CON EDISON                     | 55 W 82 ST & COLUMBUS AVE     | 406 feet to the NNE  | Hazardous Waste Generator/Transporter   |
| 442 | CON EDISON                     | 61 W 82 ST & COLUMBUS AVE     | 407 feet to the NNE  | Hazardous Waste Generator/Transporter   |
| 270 | ROXY HARDWARE                  | 469 COLUMBUS AVE              | 477 feet to the NNE  | Closed Status Spill (Misc. Spill Cause) |
| 349 | N&R REALTY                     | 471 COLUMBUS AVENUE           | 504 feet to the NNE  | Petroleum Bulk Storage Site             |
| 350 | N & R REALTY CO                | 471 COLUMBUS AVE              | 504 feet to the NNE  | Petroleum Bulk Storage Site             |
| 272 | 473 COLUMBUS AVE/81 & 82       | 473 COLUMBUS AVE/81 & 82      | 528 feet to the NNE  | Closed Status Spill (Misc. Spill Cause) |
| 479 | CON EDISON                     | 98 W 83 ST                    | 572 feet to the NNE  | Hazardous Waste Generator/Transporter   |
| 482 | CON EDISON                     | NEC 83 ST & COLUMBUS AVE      | 600 feet to the NNE  | Hazardous Waste Generator/Transporter   |
| 483 | CON EDISON                     | NWC 83 & COLUMBUS AV          | 600 feet to the NNE  | Hazardous Waste Generator/Transporter   |
| 372 | 481 COLUMBUS ASSOC.            | 73 W 83 ST                    | 640 feet to the NNE  | Petroleum Bulk Storage Site             |
| 125 | APARTMENT 1-1                  | 101 WEST 85 STREET            | 1231 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 126 | 101 WEST 85TH STREET           | 101 WEST 85TH STREET          | 1231 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 138 | COMMERICAL PROPERTY            | 40 WEST 86TH ST               | 1318 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 157 | SPILL NUMBER 0006084           | 64 W 87TH ST                  | 1613 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 173 | DRUM RUN                       | 119 WEST 87TH STREET          | 1791 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 182 | IN APARTMENT                   | 114 W 88TH ST - APT 1         | 1890 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 3   | TUZ MANAGMENT                  | 595 COLUMBUS AVE              | 2101 feet to the NNE | Active Tank Test Failure                |
| 198 | 100 WEST 89TH ST/MANH          | 100 WEST 89TH STREET          | 2129 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 296 | WISE TOWERS                    | 49 WEST 89TH STREET           | 2326 feet to the NNE | Closed Status Spill (Misc. Spill Cause) |
| 213 | 600 COLUMBUS                   | 600 COLUMBUS AVE.             | 2362 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 225 | SERVICE BOX #15862             | W. 90TH ST./COLUMBUS AVE.     | 2478 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 300 | 144 WEST 90TH STREET           | 144 WEST 90TH STREET          | 2508 feet to the NNE | Closed Status Spill (Misc. Spill Cause) |
| 441 | CON EDISON                     | 51 W 82 & COLUMBUS AVE        | 407 feet to the NE   | Hazardous Waste Generator/Transporter   |
| 341 | 4182 TENANTS CORP              | 41 WEST 82ND STREET           | 434 feet to the NE   | Petroleum Bulk Storage Site             |
| 268 | 35 W. 82ND ST                  | 35 W. 82ND STREET             | 436 feet to the NE   | Closed Status Spill (Misc. Spill Cause) |
| 342 | RESIDENTIAL APARTMENT BUILDING | 35 WEST 82ND STREET           | 441 feet to the NE   | Petroleum Bulk Storage Site             |
| 449 | CONSOLIDATED EDISON            | 29 WEST 82 STREET             | 464 feet to the NE   | Hazardous Waste Generator/Transporter   |
| 450 | CON EDISON                     | 29 W 82ND ST                  | 464 feet to the NE   | Hazardous Waste Generator/Transporter   |
| 456 | CONSOLIDATED EDISON            | 23 W 82 ST                    | 496 feet to the NE   | Hazardous Waste Generator/Transporter   |
| 457 | CON EDISON                     | 21-23 W 82 ST                 | 496 feet to the NE   | Hazardous Waste Generator/Transporter   |
| 355 | 83RD STREET OWNERS CORP        | 46 W 83 STREET                | 541 feet to the NE   | Petroleum Bulk Storage Site             |
| 472 | CON EDISON                     | 34 W 83RD ST                  | 563 feet to the NE   | Hazardous Waste Generator/Transporter   |
| 277 | 34-36 WEST 83RD ST             | 34-36 WEST 83RD ST            | 568 feet to the NE   | Closed Status Spill (Misc. Spill Cause) |
| 501 | CON EDISON                     | 18 W 83 ST & COLUMBUS         | 649 feet to the NE   | Hazardous Waste Generator/Transporter   |
| 95  | DECLERCQ RESIDENCE             | 48 WEST 84TH STREET           | 784 feet to the NE   | Closed Status Spill (Unk/Other Cause)   |
| 14  | APARTMENT BUIDLING             | 15 WEST 84TH STREET           | 1003 feet to the NE  | Closed Status Tank Failure              |
| 116 | BROWNSTONE                     | 52 W. 85TH ST APT 1R          | 1052 feet to the NE  | Closed Status Spill (Unk/Other Cause)   |
| 17  | 24 WEST 85TH ST/MANH           | 24 WEST 85TH STREET           | 1116 feet to the NE  | Closed Status Tank Failure              |
| 137 | CENTRLA PARK WEST&85TH ST      | CENTRAL PARK WEST&85TH ST     | 1309 feet to the NE  | Closed Status Spill (Unk/Other Cause)   |
| 139 | 28-30 W. 86TH ST.              | 28-30 W. 86TH ST.             | 1326 feet to the NE  | Closed Status Spill (Unk/Other Cause)   |
| 287 | 10 WEST 86TH ST                | 10 WEST 86TH ST               | 1376 feet to the NE  | Closed Status Spill (Misc. Spill Cause) |
| 5   | 86 STREET TRANSVERSE DPR -DDC  | 86TH STREET & TRANSVERSE ROAD | 1560 feet to the NE  | Active Haz Spill (Unknown/Other Cause)  |
| 147 | 86 STREET TRANSVERSE DPR -DDC  | 86TH STREET & TRANSVERSE ROAD | 1560 feet to the NE  | Closed Status Spill (Unk/Other Cause)   |
| 30  | SPILL NUMBER 9913986           | 37 WEST 87TH ST               | 1775 feet to the NE  | Closed Status Tank Failure              |
| 174 | BUILD ING                      | 23 WEST 87TH STREET           | 1793 feet to the NE  | Closed Status Spill (Unk/Other Cause)   |
| 32  | TZC                            | 45 WEST 88TH STREET           | 2036 feet to the NE  | Closed Status Tank Failure              |
| 297 | APARTMENT BUILDING             | 19 WEST 89TH STREET           | 2332 feet to the NE  | Closed Status Spill (Misc. Spill Cause) |
| 220 | SPILL NUMBER 9912480           | 10 WEST 90TH ST               | 2433 feet to the NE  | Closed Status Spill (Unk/Other Cause)   |
| 38  | SPILL NUMBER 9911904           | 2 WEST 90TH ST                | 2449 feet to the NE  | Closed Status Tank Failure              |

|     |                                          |                                    |                      |                                         |
|-----|------------------------------------------|------------------------------------|----------------------|-----------------------------------------|
| 266 | APARTMENT COMPLEX                        | 11 WEST 81ST ST                    | 423 feet to the ENE  | Closed Status Spill (Misc. Spill Cause) |
| 267 | ALLEYWAY – DRUM RUN                      | 11 W.81ST STREET                   | 423 feet to the ENE  | Closed Status Spill (Misc. Spill Cause) |
| 340 | HAYDEN OWNERS CORP                       | 11 WEST 81ST STREET                | 429 feet to the ENE  | Petroleum Bulk Storage Site             |
| 447 | CON EDISON                               | 16–18 W 82 ST & COLUMBUS AV        | 461 feet to the ENE  | Hazardous Waste Generator/Transporter   |
| 84  | MANHOLE 57249                            | 211 CENTRAL PARK WEST              | 542 feet to the ENE  | Closed Status Spill (Unk/Other Cause)   |
| 274 | 8223                                     | 211 CENTRAL PARK WEST              | 542 feet to the ENE  | Closed Status Spill (Misc. Spill Cause) |
| 275 | 211 CENTRAL PARK W/MANH                  | 211 CENTRAL PARK WEST              | 542 feet to the ENE  | Closed Status Spill (Misc. Spill Cause) |
| 276 | CENTRAL PARK                             | 211 CENTRAL PARK WEST              | 542 feet to the ENE  | Closed Status Spill (Misc. Spill Cause) |
| 475 | CONSOLIDATED EDISON                      | 211 CENTRAL PARK WEST              | 567 feet to the ENE  | Hazardous Waste Generator/Transporter   |
| 476 | CONSOLIDATED EDISON                      | V8223–CENTRAL PARK WEST            | 567 feet to the ENE  | Hazardous Waste Generator/Transporter   |
| 477 | CONSOLIDATED EDISON                      | V8223–211 CENTRAL PARK W           | 567 feet to the ENE  | Hazardous Waste Generator/Transporter   |
| 478 | CON EDISON                               | 219 CENTRAL PARK WEST              | 567 feet to the ENE  | Hazardous Waste Generator/Transporter   |
| 359 | BERESFORD APARTMENTS                     | 211 CENTRAL PARK WEST              | 575 feet to the ENE  | Petroleum Bulk Storage Site             |
| 504 | BERESFORD APARTMENTS                     | 211 CENTRAL PARK W                 | 594 feet to the ENE  | Air Discharge Site                      |
| 278 | 7,9,11 WEST 82ND ST/MANH                 | 7,9,11 WEST 82ND STREET            | 600 feet to the ENE  | Closed Status Spill (Misc. Spill Cause) |
| 85  | 7 WEST 82ND ST/MANHATTAN                 | 7 WEST 82ND STREET                 | 617 feet to the ENE  | Closed Status Spill (Unk/Other Cause)   |
| 496 | CON EDISON                               | OPP 5 W 82 ST & COLUMBUS AV        | 641 feet to the ENE  | Hazardous Waste Generator/Transporter   |
| 497 | CON EDISON                               | OPP 5 W 82ND ST & COLUMBUS AVE     | 641 feet to the ENE  | Hazardous Waste Generator/Transporter   |
| 100 | W 83RD ST& CENT PARK WEST                | W 83RD ST& CENT PARK WEST          | 898 feet to the ENE  | Closed Status Spill (Unk/Other Cause)   |
| 463 | CON EDISON                               | FO 9–11 W 81 ST EO COLUMBUS AVE    | 529 feet to the E    | Hazardous Waste Generator/Transporter   |
| 88  | AMERICAN MUSEUM HISTORY                  | 81ST ST & CENTRAL PK WEST          | 675 feet to the E    | Closed Status Spill (Unk/Other Cause)   |
| 89  | 79TH ST TRANSVERSE                       | 79TH ST TRANSVERSE                 | 675 feet to the E    | Closed Status Spill (Unk/Other Cause)   |
| 90  | SPILL NUMBER 0101436                     | CENTRAL PARK W/ W 81ST ST          | 675 feet to the E    | Closed Status Spill (Unk/Other Cause)   |
| 273 | WEST 79TH STREET AND                     | CENTRAL PARK                       | 529 feet to the ESE  | Closed Status Spill (Misc. Spill Cause) |
| 468 | CONSOLIDATED EDISON                      | 78TH & 8TH AVE                     | 548 feet to the SE   | Hazardous Waste Generator/Transporter   |
| 91  | SPILL NUMBER 9914163                     | W 77TH ST/CENT PARK W              | 676 feet to the SSE  | Closed Status Spill (Unk/Other Cause)   |
| 170 | CENTRAL PARK/THE LAKE                    | 59TH ST/110TH ST                   | 1781 feet to the SSE | Closed Status Spill (Unk/Other Cause)   |
| 171 | CENTRAL PARK LAKE                        | WEST 79TH STREET+CENTRAL           | 1781 feet to the SSE | Closed Status Spill (Unk/Other Cause)   |
| 172 | CENTRAL PARK LAKE,WEST                   | CENTRAL PARK LAKE,WEST             | 1781 feet to the SSE | Closed Status Spill (Unk/Other Cause)   |
| 291 | CENTRAL PARK LAKE                        | CENTRAL PARK LAKE                  | 1781 feet to the SSE | Closed Status Spill (Misc. Spill Cause) |
| 337 | 20 W 77 ST                               | 20 WEST 77TH STREET                | 409 feet to the S    | Petroleum Bulk Storage Site             |
| 448 | CONSOLIDATED EDISON – SERV BOX 13735     | F/O 26–28 W 76TH ST 7 COLUMBUS AVE | 463 feet to the S    | Hazardous Waste Generator/Transporter   |
| 346 | 6–16 WEST 77 STREET                      | 6 WEST 77TH ST                     | 500 feet to the S    | Petroleum Bulk Storage Site             |
| 459 | CON EDISON SERVICE BOX 13735             | 26–28 W 76TH ST E OF COLUMBUS AVE  | 516 feet to the S    | Hazardous Waste Generator/Transporter   |
| 460 | 6–16 WEST 77TH STREET CORP               | 6–16 W 77TH ST                     | 518 feet to the S    | Hazardous Waste Generator/Transporter   |
| 461 | CON EDISON                               | F/O 20TH W 76TH ST                 | 524 feet to the S    | Hazardous Waste Generator/Transporter   |
| 462 | CON EDISON                               | 26 W 76 ST                         | 526 feet to the S    | Hazardous Waste Generator/Transporter   |
| 364 | 14–16 WEST 76TH ST., LLC                 | 14–16 WEST 76TH STREET             | 617 feet to the S    | Petroleum Bulk Storage Site             |
| 365 | CENTRAL PARK REALTY                      | 14 W 76 ST                         | 623 feet to the S    | Petroleum Bulk Storage Site             |
| 106 | MANHOLE 29424                            | W 75TH ST & CEN PRK W              | 965 feet to the S    | Closed Status Spill (Unk/Other Cause)   |
| 107 | 214656; WEST 75 ST AND CENTRAL PARK WEST | WEST 75 ST AND CENTRAL PARK WEST   | 965 feet to the S    | Closed Status Spill (Unk/Other Cause)   |
| 112 | 214793; 141–150 CENTRAL PARK WEST        | 141–150 CENTRAL PARK WEST          | 1020 feet to the S   | Closed Status Spill (Unk/Other Cause)   |
| 16  | APT COMPLEX                              | 10 WEST 74TH ST                    | 1066 feet to the S   | Closed Status Tank Failure              |
| 22  | 135 CENTRAL PARK W                       | 135 CENTRAL PK W                   | 1175 feet to the S   | Closed Status Tank Failure              |
| 142 | MANHOLE 29419                            | CENTRAL PK WEST                    | 1356 feet to the S   | Closed Status Spill (Unk/Other Cause)   |
| 144 | 1 W 72ND ST/DAKOTA                       | 1 W 72ND ST/DAKOTA                 | 1368 feet to the S   | Closed Status Spill (Unk/Other Cause)   |
| 181 | SPILL NUMBER 0011976                     | W 71S ST / CENTRAL PARK W          | 1856 feet to the S   | Closed Status Spill (Unk/Other Cause)   |

|     |                                     |                                |                      |                                         |
|-----|-------------------------------------|--------------------------------|----------------------|-----------------------------------------|
| 263 | 60 WEST 76TH ST                     | 60 WEST 76TH ST                | 402 feet to the SSW  | Closed Status Spill (Misc. Spill Cause) |
| 345 | 57 WEST 75TH ST                     | 57 WEST 75TH ST                | 499 feet to the SSW  | Petroleum Bulk Storage Site             |
| 464 | CON EDISON                          | 47-49 75TH ST & CPW            | 531 feet to the SSW  | Hazardous Waste Generator/Transporter   |
| 467 | CONSOLIDATED EDISON                 | 43 WEST 75TH ST                | 545 feet to the SSW  | Hazardous Waste Generator/Transporter   |
| 469 | CONSOLIDATED EDISON                 | 41 W 75TH ST                   | 551 feet to the SSW  | Hazardous Waste Generator/Transporter   |
| 9   | RESIDENCE                           | 29 WEST 75TH STREET            | 598 feet to the SSW  | Closed Status Tank Failure              |
| 495 | CON EDISON                          | F/O 35 W 75 ST                 | 634 feet to the SSW  | Hazardous Waste Generator/Transporter   |
| 373 | HARTFORD REALTY COMPANY, LLC        | 60 W 75 STREET                 | 659 feet to the SSW  | Petroleum Bulk Storage Site             |
| 94  | 55 W 74 ST                          | 55 W 74TH ST                   | 778 feet to the SSW  | Closed Status Spill (Unk/Other Cause)   |
| 4   | CON ED                              | 33 W 74TH ST                   | 827 feet to the SSW  | Active Haz Spill (Unknown/Other Cause)  |
| 280 | 27 W 74TH STREET                    | 27 W 74TH STREET               | 849 feet to the SSW  | Closed Status Spill (Misc. Spill Cause) |
| 282 | 54 WEST 74TH ST                     | 54 WEST 74TH ST                | 930 feet to the SSW  | Closed Status Spill (Misc. Spill Cause) |
| 283 | 54 WEST 74TH STREET CONDO           | 54 WEST 74TH STREET            | 930 feet to the SSW  | Closed Status Spill (Misc. Spill Cause) |
| 284 | RESIDENT                            | 54 WEST 74TH STREET            | 930 feet to the SSW  | Closed Status Spill (Misc. Spill Cause) |
| 102 | BROKEN DUCT FOUND IN EXCAVATION     | 52 WEST 74TH STREET            | 939 feet to the SSW  | Closed Status Spill (Unk/Other Cause)   |
| 105 | VACANT BUILDING                     | 36 WEST 74TH ST.               | 964 feet to the SSW  | Closed Status Spill (Unk/Other Cause)   |
| 115 | HOUSE                               | 67 WEST 73RD ST                | 1040 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 120 | NORTHEAST CORNER                    | COLUMBUS AVE/EAST 73RD ST      | 1126 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 24  | 27 WEST 72ND ST/MANH                | 27 WEST 72ND STREET            | 1299 feet to the SSW | Closed Status Tank Failure              |
| 135 | VAULT #V3716                        | 27 WEST 72ND ST                | 1299 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 26  | BANCROFT OWNERS INC                 | 40 W 72ND STREET               | 1507 feet to the SSW | Closed Status Tank Failure              |
| 58  | BASEMENT                            | 12 WEST 72ND ST                | 1555 feet to the SSW | Closed Status Tank Test Failure         |
| 160 | 15 GAL ANTIFREEZE IN MANHOLE #12879 | 17 WEST 71 STREET              | 1668 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 161 | SB12896                             | 17 WEST 71 ST                  | 1668 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 184 | 101 CENTRAL PARK WEST               | 101 CENTRAL PARK WEST          | 1910 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 193 | COMMERCIAL PROPERTY/APT BLDG        | 30 WEST 70TH ST                | 2045 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 201 | 91 CENTRAL PARK WEST                | 11 WEST 69TH STREET            | 2188 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 294 | STREET                              | WEST 69TH ST/COLUMBUS AV       | 2216 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 214 | ROADWAY                             | 2 WEST 69TH ST                 | 2382 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 217 | SEVEN GALLONS OF HYDRAULIC FLUID    | 53 WEST 68 STREET              | 2401 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 230 | 74 WEST 68 ST                       | 74 W 68TH ST                   | 2550 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 232 | IN ROADWAY                          | 20 W. 68TH ST                  | 2598 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 443 | CON EDISON                          | F/O 339 COLUMBUS AVE           | 416 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 339 | 100 WEST 76TH STREET                | 100 WEST 76TH STREET           | 423 feet to the SW   | Petroleum Bulk Storage Site             |
| 444 | CON EDISON                          | FO 338 COLUMBUS AVE NO 75 ST   | 423 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 445 | CON EDISON                          | OPP SIDE 116 W 76 ST           | 445 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 82  | BET. COLUMBUS/ AMSTERDAM            | 118 W. 76TH ST.                | 520 feet to the SW   | Closed Status Spill (Unk/Other Cause)   |
| 352 | 120 WEST 76TH STREET                | 120 WEST 76TH STREET           | 530 feet to the SW   | Petroleum Bulk Storage Site             |
| 353 | WEST SIDE INST SYNG                 | 120 W 76 ST                    | 530 feet to the SW   | Petroleum Bulk Storage Site             |
| 83  | SPILL NUMBER 0313954                | 120 WEST 76TH ST.              | 533 feet to the SW   | Closed Status Spill (Unk/Other Cause)   |
| 357 | CHA REALTY LLC (JOSEPH CHADI)       | 101 WEST 75 ST.                | 572 feet to the SW   | Petroleum Bulk Storage Site             |
| 358 | JOSEPH CHADI                        | 101 W 75 ST                    | 572 feet to the SW   | Petroleum Bulk Storage Site             |
| 279 | 8 OZ IN MANHOLE # 30582             | WEST 75 STREET & COLUMBUS AVE  | 600 feet to the SW   | Closed Status Spill (Misc. Spill Cause) |
| 484 | CON EDISON                          | W 75TH ST & COLUMBUS AVE       | 600 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 485 | CON EDISON                          | W 75TH ST & COLUMBUS AVE       | 600 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 486 | CONSOLIDATED EDISON                 | W 75TH STREET AND COLUMBUS AVE | 600 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 487 | CONSOLIDATED EDISON                 | S/W/C W 75 ST & COLUMBUS AVE   | 600 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 488 | CON EDISON                          | SWC W 75 & COLUMBUS AVE        | 600 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 489 | CON EDISON                          | S/W/C W 75 ST & COLUMBUS AVVE  | 600 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 500 | CONSOLIDATED EDISON                 | FRONT OF 104 WEST 75 STREET    | 647 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 503 | CONSOLIDATED EDISON                 | SB 13554 F/O 106 W 75TH ST     | 654 feet to the SW   | Hazardous Waste Generator/Transporter   |

|     |                                  |                           |                      |                                         |
|-----|----------------------------------|---------------------------|----------------------|-----------------------------------------|
| 10  | 102 WEST 75TH ST                 | 102 WEST 75TH ST          | 699 feet to the SW   | Closed Status Tank Failure              |
| 11  | 100 WEST 75TH STREET             | 100 WEST 75TH STREET      | 699 feet to the SW   | Closed Status Tank Failure              |
| 98  | 215875; 136 W 75 STREET          | 136 W 75 STREET           | 862 feet to the SW   | Closed Status Spill (Unk/Other Cause)   |
| 103 | 135 WEST 74TH ST                 | 135 WEST 74TH ST          | 947 feet to the SW   | Closed Status Spill (Unk/Other Cause)   |
| 54  | APRT                             | 141 WEST 73RD STREET      | 1182 feet to the SW  | Closed Status Tank Test Failure         |
| 127 | IN FRONT OF ON WALK              | 157 WEST 73RD ST          | 1232 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 128 | SPILL NUMBER 0209565             | 126 W 73RD ST             | 1258 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 57  | APT BLD TTF                      | 101 WEST 72ND ST          | 1311 feet to the SW  | Closed Status Tank Test Failure         |
| 141 | 121 WEST 72ND STREET             | 121 W 72ND ST             | 1341 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 288 | 160 WEST 73RD STREET             | 160 WEST 73RD STREET      | 1406 feet to the SW  | Closed Status Spill (Misc. Spill Cause) |
| 155 | SPILL NUMBER 9714534             | 152 WEST 72ND ST – APT 5B | 1611 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 156 | 148 WEST 72ND ST                 | 148 WEST 72ND ST          | 1611 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 6   | BASEMENT                         | 166 W 72ND ST             | 1693 feet to the SW  | Active Haz Spill (Unknown/Other Cause)  |
| 63  | APARTMENT BUILDING – TTF         | 166 WEST 72ND STREET      | 1693 feet to the SW  | Closed Status Tank Test Failure         |
| 166 | SPILL NUMBER 0311725             | 159 WEST 71ST ST/BTWN COL | 1745 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 185 | 6 BLOCK AREA                     | W 71ST / BROADWAY         | 1915 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 194 | MANHOLE TM-1549                  | IFO 154 W70TH ST          | 2067 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 196 | THE ORMANDE                      | 2030 BROADWAY             | 2116 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 299 | ROADSIDE                         | 2000 BROADWAY             | 2413 feet to the SW  | Closed Status Spill (Misc. Spill Cause) |
| 301 | VAULTS V9112/V9328/V9500/SB12447 | WEST 68TH ST AND BROADWAY | 2532 feet to the SW  | Closed Status Spill (Misc. Spill Cause) |
| 302 | ON SOUTH SIDE OF WEST 68 STREET  | BETWEEN AMSTERDAM AVE AND | 2582 feet to the SW  | Closed Status Spill (Misc. Spill Cause) |
| 41  | 1995 BROADWAY                    | 1995 BROADWAY             | 2625 feet to the SW  | Closed Status Tank Failure              |
| 233 | 1995 BROADWAY                    | 1995 BROADWAY             | 2625 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 264 | 129 WEST 77TH STREET             | 129 WEST 77TH STREET      | 409 feet to the WSW  | Closed Status Spill (Misc. Spill Cause) |
| 343 | 125 W 76 ST                      | 125 WEST 76TH STREET      | 447 feet to the WSW  | Petroleum Bulk Storage Site             |
| 481 | CON EDISON                       | 148 WEST 77TH STREET      | 592 feet to the WSW  | Hazardous Waste Generator/Transporter   |
| 92  | BASMENT                          | 148 W 76TH ST             | 686 feet to the WSW  | Closed Status Spill (Unk/Other Cause)   |
| 93  | 163 WEST 76TH ST/MANH            | 163 WEST 76TH STREET      | 757 feet to the WSW  | Closed Status Spill (Unk/Other Cause)   |
| 99  | 140 W 75TH ST                    | 140 W 75TH ST             | 889 feet to the WSW  | Closed Status Spill (Unk/Other Cause)   |
| 110 | MANHOLE 13704                    | 76TH/AMSTERDAM            | 1007 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 111 | MANHOLE 13705                    | 76TH ST/AMSTERDAM         | 1007 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 132 | STREET                           | AMSTERDAM AVE AT WEST 74T | 1283 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 2   | TTF                              | 215 WEST 75TH ST          | 1299 feet to the WSW | Active Tank Test Failure                |
| 25  | 2130 BROADWAY/MANH               | 2130 BROADWAY             | 1343 feet to the WSW | Closed Status Tank Failure              |
| 146 | WEST 74TH ST/BROADWAY            | WEST 74TH ST/BROADWAY     | 1493 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 289 | WEST 74TH ST/ BRODWAY            | WEST 74TH ST/ BROADWAY    | 1493 feet to the WSW | Closed Status Spill (Misc. Spill Cause) |
| 158 | MANHOLE #27450                   | 73RD ST/BROADWAY          | 1623 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 27  | 2109 BROADWAY                    | 2109 BROADWAY             | 1700 feet to the WSW | Closed Status Tank Failure              |
| 28  | 2109 BROADWAY                    | 2109 BROADWAY             | 1700 feet to the WSW | Closed Status Tank Failure              |
| 168 | SPILL NUMBER 9712910             | WEST 72ND ST & BROADWAY   | 1778 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 183 | 2071 BROADWAY                    | 2071 BROADWAY             | 1902 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 195 | VAULT #V1826                     | WEST 72ND STREET          | 2101 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 69  | RESIDENTS TTF                    | 277 WEST END AVE          | 2299 feet to the WSW | Closed Status Tank Test Failure         |
| 211 | 218615; W END AVE AND 72ND ST    | W END AVE AND 72ND ST     | 2326 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 35  | OCONNOR HOME                     | 264 WEST 71 STREET        | 2439 feet to the WSW | Closed Status Tank Failure              |
| 224 | APARTMENT BUIDLING               | 255 WEST END AVE          | 2475 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 39  | 240 WEST END AVE                 | 240 WEST END AVE          | 2498 feet to the WSW | Closed Status Tank Failure              |
| 40  | PRIVATE RESIDENCE                | 240 WEST END AVE          | 2498 feet to the WSW | Closed Status Tank Failure              |
| 440 | CON EDISON                       | 127 W 78TH ST             | 407 feet to the W    | Hazardous Waste Generator/Transporter   |
| 269 | BASEMENT                         | 131 WEST 78TH ST          | 444 feet to the W    | Closed Status Spill (Misc. Spill Cause) |
| 452 | CONSOLIDATED EDISON              | 135 W. 78 ST              | 478 feet to the W    | Hazardous Waste Generator/Transporter   |

|     |                            |                                 |                    |                                         |
|-----|----------------------------|---------------------------------|--------------------|-----------------------------------------|
| 453 | CON EDISON                 | FO 135 78 ST EO AMSTERDAM AVE   | 481 feet to the W  | Hazardous Waste Generator/Transporter   |
| 455 | CONSOLIDATED EDISON        | W 78 ST BETW COLUMBUS/AMSTERDAM | 489 feet to the W  | Hazardous Waste Generator/Transporter   |
| 466 | CONSOLIDATED EDISON        | OPP 141 W. 78ST                 | 538 feet to the W  | Hazardous Waste Generator/Transporter   |
| 473 | CON EDISON                 | 143-144 W 78 ST                 | 563 feet to the W  | Hazardous Waste Generator/Transporter   |
| 474 | CON EDISON                 | 143-144 W 78 ST                 | 563 feet to the W  | Hazardous Waste Generator/Transporter   |
| 480 | CON EDISON                 | 147-145 W 78 ST                 | 587 feet to the W  | Hazardous Waste Generator/Transporter   |
| 491 | NYC BOARD OF EDUCATION     | 160 WEST 78TH STREET            | 622 feet to the W  | Hazardous Waste Generator/Transporter   |
| 494 | CON EDISON                 | 151 W 78 ST                     | 627 feet to the W  | Hazardous Waste Generator/Transporter   |
| 369 | 151 W 78 ST                | 151 WEST 78TH STREET            | 630 feet to the W  | Petroleum Bulk Storage Site             |
| 370 | P.S. 87 - MANHATTAN (M087) | 160 WEST 78TH STREET            | 638 feet to the W  | Petroleum Bulk Storage Site             |
| 498 | CON EDISON                 | FO 152 W 78 ST                  | 646 feet to the W  | Hazardous Waste Generator/Transporter   |
| 499 | CON EDISON                 | FO 148 W 78 ST                  | 646 feet to the W  | Hazardous Waste Generator/Transporter   |
| 87  | SPILL NUMBER 0107348       | 160 WEST 78TH ST                | 667 feet to the W  | Closed Status Spill (Unk/Other Cause)   |
| 101 | MICHAEL DONOVAN            | 175 WEST 76TH ST                | 901 feet to the W  | Closed Status Spill (Unk/Other Cause)   |
| 281 | BASEMENT                   | 175 W 76TH ST                   | 901 feet to the W  | Closed Status Spill (Misc. Spill Cause) |
| 50  | COMMERCIAL BUILDING        | 200 W. 78TH ST                  | 1021 feet to the W | Closed Status Tank Test Failure         |
| 51  | APARTMENT BUILDING         | 202 WEST 78TH ST                | 1055 feet to the W | Closed Status Tank Test Failure         |
| 15  | 201 WEST 77TH STREET       | 201 WEST 77TH STREET            | 1065 feet to the W | Closed Status Tank Failure              |
| 119 | PARKING GARAGE             | 348-354 AMSTERDAM AVE           | 1097 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 18  | EXXONMOBIL                 | 332 AMSTERDAM AVENUE            | 1138 feet to the W | Closed Status Tank Failure              |
| 19  | EXXONMOBIL                 | 332 AMSTERDAM AVENUE            | 1138 feet to the W | Closed Status Tank Failure              |
| 20  | EXXONMOBIL                 | 332 AMSTERDAM AVENUE            | 1138 feet to the W | Closed Status Tank Failure              |
| 21  | EXXONMOBIL                 | 332 AMSTERDAM AVENUE            | 1138 feet to the W | Closed Status Tank Failure              |
| 53  | EXXON CORP                 | 332 AMSTERDAM AVENUE            | 1138 feet to the W | Closed Status Tank Test Failure         |
| 121 | 200 WEST 76TH ST           | 332 AMSTERDAM AVENUE            | 1138 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 122 | HERTZ RENT A CAR           | 210 W. 77TH ST.                 | 1176 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 55  | NATIONAL CAR RENTAL SITE   | 219 WEST 77TH STREET            | 1228 feet to the W | Closed Status Tank Test Failure         |
| 123 | CAR RENTAL                 | 221-223 W77TH ST                | 1228 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 124 | NATIONAL CAR RENTAL        | 219 WEST 77TH STREET            | 1228 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 56  | AVIS RENT A CAR            | 216 W 76TH ST                   | 1275 feet to the W | Closed Status Tank Test Failure         |
| 129 | AVIS RENT A CAR            | 216 WEST 76TH STREET            | 1275 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 130 | AVIS                       | 216 WEST 76TH ST                | 1275 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 131 | COMMERCIAL BUILDING        | 216 WEST 76TH STREET            | 1275 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 23  | OPERA APARTMENTS           | 2166 BROADWAY                   | 1289 feet to the W | Closed Status Tank Failure              |
| 133 | THE OPERA OWNERS INC       | 2166 BROADWAY                   | 1289 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 134 | OPERA APARTMENTS           | 2166 BROADWAY                   | 1289 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 136 | MANHOLE #59227             | 215 W.76TH ST                   | 1299 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 140 | AVIS RENT A CAR            | 219 W. 76TH STREET              | 1340 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 148 | SERVICE BOX 13680          | 241 WEST 76 ST                  | 1562 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 149 | APARTMENTS                 | 235 WEST 76TH ST                | 1562 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 150 | CONDO 235 W 75TH ST        | 235 W.75TH ST                   | 1573 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 151 | 235 W. 75TH ST             | 235 WEST 75TH ST                | 1573 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 152 | SPILL NUMBER 0301510       | 2159 BROADWAY                   | 1573 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 59  | BELLECLAIRE HOTEL          | 250 WEST 77TH STREET            | 1577 feet to the W | Closed Status Tank Test Failure         |
| 60  | BELLECLAIRE HOTEL          | 250 WEST 77TH ST                | 1577 feet to the W | Closed Status Tank Test Failure         |
| 153 | APARTMENT COMPLEX          | 250 W 77TH ST                   | 1577 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 61  | TTF                        | 233 WEST 77TH STREET            | 1586 feet to the W | Closed Status Tank Test Failure         |
| 62  | CONDO 241 W 75TH ST        | 241 W.75TH ST                   | 1647 feet to the W | Closed Status Tank Test Failure         |
| 159 | APARTMENT                  | 241 WEST 75TH ST                | 1647 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 29  | CONDO 245 W.75TH ST        | 245 W.75TH ST                   | 1705 feet to the W | Closed Status Tank Failure              |
| 163 | 245 WEST 75TH STREET/ NEW  | 245 WEST 75TH STREET            | 1705 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 169 | APT BLDG                   | 342 WEST END AVE                | 1778 feet to the W | Closed Status Spill (Unk/Other Cause)   |
| 179 | MANHOLE 61728              | WEST END AV/W 77TH ST           | 1851 feet to the W | Closed Status Spill (Unk/Other Cause)   |

|     |                                      |                                 |                      |                                         |
|-----|--------------------------------------|---------------------------------|----------------------|-----------------------------------------|
| 180 | MANHOLE 61728                        | WESTEND AVE/W 77TH ST           | 1851 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 187 | 355 WEST END AVE                     | 355 WEST END AVE                | 1932 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 205 | CHRISTIAN COMMUNITY                  | 309 W.74TH ST                   | 2239 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 212 | COMMERCIAL BUILDING                  | 11 RIVERSIDE DRIVE              | 2329 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 223 | SPILL NUMBER 0101768                 | 20 RIVERSIDE DR                 | 2455 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 265 | APT BUILDING                         | 127 WEST 79 ST                  | 414 feet to the WNW  | Closed Status Spill (Misc. Spill Cause) |
| 344 | 79TH ST. RESIDENCE CORP.             | 135 WEST 79TH STREET            | 480 feet to the WNW  | Petroleum Bulk Storage Site             |
| 271 | APARTMENT BUILDING                   | 135 WEST 79TH ST                | 486 feet to the WNW  | Closed Status Spill (Misc. Spill Cause) |
| 351 | APT BUILDING                         | 140 W 79TH ST                   | 511 feet to the WNW  | Petroleum Bulk Storage Site             |
| 458 | CON EDISON                           | FO 140 N 79 ST EO AMSTERDAM AVE | 514 feet to the WNW  | Hazardous Waste Generator/Transporter   |
| 465 | CON EDISON                           | FO 145 W 79 ST & AMSTERDAM AVE  | 534 feet to the WNW  | Hazardous Waste Generator/Transporter   |
| 354 | 145 W. 79TH STREET OWNERS CORP.      | 145 W. 79TH STREET              | 537 feet to the WNW  | Petroleum Bulk Storage Site             |
| 356 | 146 WEST 79 ST                       | 146 WEST 79TH STREET            | 566 feet to the WNW  | Petroleum Bulk Storage Site             |
| 360 | 147 W 79TH ST                        | 147 WEST 79TH STREET            | 598 feet to the WNW  | Petroleum Bulk Storage Site             |
| 366 | 150 WEST 79 CORP                     | 150 WEST 79TH STREET            | 625 feet to the WNW  | Petroleum Bulk Storage Site             |
| 492 | CON EDISON                           | FO 150 W 79 ST & AMSTERDAM AVE  | 626 feet to the WNW  | Hazardous Waste Generator/Transporter   |
| 493 | CON EDISON                           | FO 150 W 79 ST & AMSTERDAM AVE  | 626 feet to the WNW  | Hazardous Waste Generator/Transporter   |
| 48  | ABOVE GROUND TANK TTF                | 172 WEST 79TH                   | 865 feet to the WNW  | Closed Status Tank Test Failure         |
| 117 | VAULT 9190/8884/9463                 | 200 WEST 79TH ST                | 1064 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 286 | 200 WEST 79TH ST/MANH                | 200 WEST 79TH STREET            | 1064 feet to the WNW | Closed Status Spill (Misc. Spill Cause) |
| 143 | 2222 BROADWAY/FILENES BASEMENT       | 2222 BROADWAY                   | 1366 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 145 | MAN HOLE #27479                      | WEST 78 STREET AND BROADWAY     | 1473 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 164 | APTHORP BUILDING                     | 252 WEST 79TH ST                | 1705 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 167 | SPILL NUMBER 9908618                 | 400 WEST END AVE                | 1755 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 177 | W79TH ST / WEST END AVE              | W79TH ST / WEST END AVE         | 1851 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 178 | WEST END AV&W 79TH ST                | WEST END AV&W 79TH ST           | 1851 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 188 | 389 WEST END AVENUE                  | 389 WEST END AVENUE             | 1941 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 190 | 305 – IN BROOKLYN OR MANHATTAN?      | 305 W 79TH ST                   | 1989 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 191 | APT BLD.                             | 365 WEST END AVE                | 1991 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 67  | RESIDENTS                            | 307 WEST 79 STRET               | 2063 feet to the WNW | Closed Status Tank Test Failure         |
| 197 | 319 WEST 77TH STREET.                | 319 WEST 77TH STREET.           | 2121 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 33  | 52 RIVERSIDE DRIVE                   | 52 RIVERSIDE DRIVE              | 2291 feet to the WNW | Closed Status Tank Failure              |
| 68  | 52 RIVERSIDE DR                      | 52 RIVERSIDE DR                 | 2291 feet to the WNW | Closed Status Tank Test Failure         |
| 208 | SPILL NUMBER 9814552                 | RIVERSIDE DR / W 79TH ST        | 2312 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 298 | TRANSFORMER                          | W 78TH ST & RIVERSIDE DR        | 2367 feet to the WNW | Closed Status Spill (Misc. Spill Cause) |
| 215 | RIVERSIDE DR FROM 76TH               | TO 79TH                         | 2389 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 336 | CLIFTON HOUSE OWNERS CORP.           | 127 WEST 79TH STREET            | 400 feet to the NW   | Petroleum Bulk Storage Site             |
| 454 | CON EDISON                           | 130 W 80TH ST                   | 483 feet to the NW   | Hazardous Waste Generator/Transporter   |
| 470 | CON EDISON                           | 140 W 80TH ST                   | 558 feet to the NW   | Hazardous Waste Generator/Transporter   |
| 471 | CON ED                               | 140 W 80TH ST                   | 558 feet to the NW   | Hazardous Waste Generator/Transporter   |
| 490 | CONSOLIDATED EDISON                  | 146 WEST 80 STREET              | 617 feet to the NW   | Hazardous Waste Generator/Transporter   |
| 104 | MANHOLE #25889                       | AMSTERDAM AV & 80TH ST          | 949 feet to the NW   | Closed Status Spill (Unk/Other Cause)   |
| 113 | 215460; 424–246 AMSTERDAM AVENUE     | 424–246 AMSTERDAM AVENUE        | 1037 feet to the NW  | Closed Status Spill (Unk/Other Cause)   |
| 114 | COMMERCIAL/DWELLING                  | 424 AMSTERDAM AVE               | 1038 feet to the NW  | Closed Status Spill (Unk/Other Cause)   |
| 186 | SPILL NUMBER 0209914                 | 425 WEST END AVE                | 1927 feet to the NW  | Closed Status Spill (Unk/Other Cause)   |
| 189 | MANHOLE 62564                        | WEST END AVE / WEST 83RD        | 1946 feet to the NW  | Closed Status Spill (Unk/Other Cause)   |
| 31  | APARTMENTS                           | 441 WEST END AV (80/81)         | 1971 feet to the NW  | Closed Status Tank Failure              |
| 65  | TTF – APARTMENT COMPLEX              | 465 WEST END AVENUE             | 2005 feet to the NW  | Closed Status Tank Test Failure         |
| 66  | ABOVE GROUND                         | 473 WEST END AVE                | 2033 feet to the NW  | Closed Status Tank Test Failure         |
| 202 | 216301; 321 W 82 ST AND RIVERSIDE DR | 321 W 82 ST AND RIVERSIDE DR    | 2191 feet to the NW  | Closed Status Spill (Unk/Other Cause)   |
| 204 | 98 RIVERSIDE DRIVE                   | 98 RIVERSIDE DRIVE              | 2204 feet to the NW  | Closed Status Spill (Unk/Other Cause)   |

|     |                                      |                               |                      |                                         |
|-----|--------------------------------------|-------------------------------|----------------------|-----------------------------------------|
| 216 | RAFFERTY RES                         | 336 WEST 84TH ST              | 2400 feet to the NW  | Closed Status Spill (Unk/Other Cause)   |
| 446 | CON EDISON                           | 132 W 81ST ST                 | 456 feet to the NNW  | Hazardous Waste Generator/Transporter   |
| 362 | 155 WEST 81 STREET ASSOCIATES        | 155 WEST 81 STREET            | 610 feet to the NNW  | Petroleum Bulk Storage Site             |
| 363 | 158 WEST 81ST STREET                 | 158 WEST 81ST STREET          | 614 feet to the NNW  | Petroleum Bulk Storage Site             |
| 86  | TOWNHOUSE                            | 144 WEST 82ND ST              | 621 feet to the NNW  | Closed Status Spill (Unk/Other Cause)   |
| 371 | 146 W 82 ST OWNERS CORP              | 146 WEST 82ND STREET          | 639 feet to the NNW  | Petroleum Bulk Storage Site             |
| 12  | APARTMENT                            | 150 WEST 82ND STREET          | 702 feet to the NNW  | Closed Status Tank Failure              |
| 46  | 150 WEST 82 STREET REALTY ASSOC, LLC | 150 WEST 82ND ST              | 702 feet to the NNW  | Closed Status Tank Test Failure         |
| 13  | 139 WEST 82ND ST/MANH                | 139 WEST 82ND STREET          | 772 feet to the NNW  | Closed Status Tank Failure              |
| 96  | MULTI-DWELLING RESIDENCE             | 171 W. 81TH ST                | 814 feet to the NNW  | Closed Status Spill (Unk/Other Cause)   |
| 285 | VAULT #6342                          | IFO 453 AMSTERDAM AVE         | 959 feet to the NNW  | Closed Status Spill (Misc. Spill Cause) |
| 108 | MANHOLE #2119                        | 475 AMSTERDAM AVE             | 992 feet to the NNW  | Closed Status Spill (Unk/Other Cause)   |
| 109 | LOSS TO ROADWAY                      | 82ND AND AMSTERDAM            | 1004 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 118 | 200 W. 82ND ST                       | 200 W. 82ND ST                | 1081 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 154 | CO-OPERATIVE                         | 212 W.85TH ST                 | 1609 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 175 | MANHOLE 27538                        | W 85TH ST/BROADWAY            | 1827 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 176 | 2350 BROADWAY                        | 2350 BROADWAY                 | 1830 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 192 | MANHOLE # 49901                      | W 84 ST / WEST END AVE        | 2039 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 292 | FEEDER M51                           | WEST END AVE / 84 STREET      | 2039 feet to the NNW | Closed Status Spill (Misc. Spill Cause) |
| 199 | MANHOLE 61729                        | WEST END AV / W 85TH ST       | 2163 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 200 | MAN HOLE #61729                      | WEST END AV & W 85TH ST       | 2163 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 293 | APARTMENT BUILDING                   | 505 WEST END AVE              | 2178 feet to the NNW | Closed Status Spill (Misc. Spill Cause) |
| 206 | MAN HOLE 61729                       | WEST END AVE AND 85 AND 86 ST | 2242 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 207 | MANHOLE 61729                        | WEST END AV/BET 85 & 86       | 2242 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 209 | 218418; W 86 ST AND WEST END AVE     | W 86 ST AND WEST END AVE      | 2324 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 210 | VAULT 5837                           | WEST 86TH ST AND WEST END AVE | 2324 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 295 | FEEDER M52                           | WEST END AVE / 86TH ST        | 2324 feet to the NNW | Closed Status Spill (Misc. Spill Cause) |
| 218 | IN FRONT 545 WEST END AVE            | FRONT 545 WEST END AVE        | 2405 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 70  | 310 WEST 86TH ST                     | 310- 320 WEST 86TH STREET     | 2506 feet to the NNW | Closed Status Tank Test Failure         |
| 226 | IFO                                  | 562 WEST END AV               | 2514 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 227 | 562 WEST END AVE                     | 562 WEST END AVE              | 2514 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 228 | EXCAVATION SITE                      | 562 WESTEND AVE               | 2514 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |

# Identified Toxic Sites by Category

American Museum of Natural History  
New York, NY 10024

\* Compass directions can vary substantially for sites located very close to the subject property address.

| <b>Brownfields Sites -- Total Sites -- 1</b>                                     |             |                               | <b>Database searched at 1/2 MILE -- ASTM required search distance: 1/2 Mile</b> |                      |
|----------------------------------------------------------------------------------|-------------|-------------------------------|---------------------------------------------------------------------------------|----------------------|
| MAP ID                                                                           | FACILITY ID | FACILITY NAME                 | FACILITY STREET                                                                 | DISTANCE & DIRECTION |
| 1                                                                                | C231096     | 267-273 WEST 87TH STREET      | 267-273 WEST 87TH STREET                                                        | 2415 feet to the N   |
| <b>Active Tank Test Failures -- Total Sites -- 2</b>                             |             |                               | <b>Database searched at 1/2 MILE -- ASTM required search distance: 1/2 Mile</b> |                      |
| MAP ID                                                                           | FACILITY ID | FACILITY NAME                 | FACILITY STREET                                                                 | DISTANCE & DIRECTION |
| 2                                                                                | 1409035     | TTF                           | 215 WEST 75TH ST                                                                | 1299 feet to the WSW |
| 3                                                                                | 0808308     | TUZ MANAGMENT                 | 595 COLUMBUS AVE                                                                | 2101 feet to the NNE |
| <b>Active Haz Spills (Unknown Causes &amp; Other Causes) -- Total Sites -- 3</b> |             |                               | <b>Database searched at 1/2 MILE -- ASTM required search distance: 1/2 Mile</b> |                      |
| MAP ID                                                                           | FACILITY ID | FACILITY NAME                 | FACILITY STREET                                                                 | DISTANCE & DIRECTION |
| 4                                                                                | 1502443     | CON ED                        | 33 W 74TH ST                                                                    | 827 feet to the SSW  |
| 5                                                                                | 9502313     | 86 STREET TRANSVERSE DPR -DDC | 86TH STREET & TRANSVERSE ROAD                                                   | 1560 feet to the NE  |
| 6                                                                                | 1506947     | BASEMENT                      | 166 W 72ND ST                                                                   | 1693 feet to the SW  |
| <b>Closed Status Tank Failures -- Total Sites -- 35</b>                          |             |                               | <b>Database searched at 1/2 MILE -- ASTM required search distance: 1/2 Mile</b> |                      |
| MAP ID                                                                           | FACILITY ID | FACILITY NAME                 | FACILITY STREET                                                                 | DISTANCE & DIRECTION |
| 7                                                                                | 0106772     | 53 W 76TH ST CONDOMINIUM      | 53 W 76TH ST                                                                    | 252 feet to the SSW  |
| 8                                                                                | 9213467     | 123 W. 79TH STREET            | 123 W. 79TH STREET                                                              | 315 feet to the WNW  |
| 9                                                                                | 0600431     | RESIDENCE                     | 29 WEST 75TH STREET                                                             | 598 feet to the SSW  |
| 10                                                                               | 9700871     | 102 WEST 75TH ST              | 102 WEST 75TH ST                                                                | 699 feet to the SW   |
| 11                                                                               | 9700866     | 100 WEST 75TH STREET          | 100 WEST 75TH STREET                                                            | 699 feet to the SW   |
| 12                                                                               | 0409941     | APARTMENT                     | 150 WEST 82ND STREET                                                            | 702 feet to the NNW  |
| 13                                                                               | 9011428     | 139 WEST 82ND ST/MANH         | 139 WEST 82ND STREET                                                            | 772 feet to the NNW  |
| 14                                                                               | 0411524     | APARTMENT BUIDLING            | 15 WEST 84TH STREET                                                             | 1003 feet to the NE  |
| 15                                                                               | 9206055     | 201 WEST 77TH STREET          | 201 WEST 77TH STREET                                                            | 1065 feet to the W   |
| 16                                                                               | 0211222     | APT COMPLEX                   | 10 WEST 74TH ST                                                                 | 1066 feet to the S   |
| 17                                                                               | 9000527     | 24 WEST 85TH ST/MANH          | 24 WEST 85TH STREET                                                             | 1116 feet to the NE  |
| 18                                                                               | 9905193     | EXXONMOBIL                    | 332 AMSTERDAM AVENUE                                                            | 1138 feet to the W   |
| 19                                                                               | 9904998     | EXXONMOBIL                    | 332 AMSTERDAM AVENUE                                                            | 1138 feet to the W   |
| 20                                                                               | 9904995     | EXXONMOBIL                    | 332 AMSTERDAM AVENUE                                                            | 1138 feet to the W   |
| 21                                                                               | 9904938     | EXXONMOBIL                    | 332 AMSTERDAM AVENUE                                                            | 1138 feet to the W   |
| 22                                                                               | 9106670     | 135 CENTRAL PARK W            | 135 CENTRAL PK W                                                                | 1175 feet to the S   |
| 23                                                                               | 9009666     | OPERA APARTMENTS              | 2166 BROADWAY                                                                   | 1289 feet to the W   |
| 24                                                                               | 9003522     | 27 WEST 72ND ST/MANH          | 27 WEST 72ND STREET                                                             | 1299 feet to the SSW |
| 25                                                                               | 9009255     | 2130 BROADWAY/MANH            | 2130 BROADWAY                                                                   | 1343 feet to the WSW |
| 26                                                                               | 0406187     | BANCROFT OWNERS INC           | 40 W 72ND STREET                                                                | 1507 feet to the SSW |
| 27                                                                               | 9802677     | 2109 BROADWAY                 | 2109 BROADWAY                                                                   | 1700 feet to the WSW |
| 28                                                                               | 9209388     | 2109 BROADWAY                 | 2109 BROADWAY                                                                   | 1700 feet to the WSW |
| 29                                                                               | 9108119     | CONDO 245 W.75TH ST           | 245 W.75TH ST                                                                   | 1705 feet to the W   |
| 30                                                                               | 9913986     | SPILL NUMBER 9913986          | 37 WEST 87TH ST                                                                 | 1775 feet to the NE  |
| 31                                                                               | 9708740     | APARTMENTS                    | 441 WEST END AV (80/81)                                                         | 1971 feet to the NW  |
| 32                                                                               | 0501353     | TZC                           | 45 WEST 88TH STREET                                                             | 2036 feet to the NE  |
| 33                                                                               | 0009236     | 52 RIVERSIDE DRIVE            | 52 RIVERSIDE DRIVE                                                              | 2291 feet to the WNW |
| 34                                                                               | 9007713     | 205 W 88TH ST/MANHATTAN       | 205 WEST 88TH STREET                                                            | 2308 feet to the N   |
| 35                                                                               | 0510860     | OCONNOR HOME                  | 264 WEST 71 STREET                                                              | 2439 feet to the WSW |
| 36                                                                               | 9812557     | TRANSFORMER VAULT #5535       | 210 W 89TH ST                                                                   | 2441 feet to the N   |
| 37                                                                               | 9810768     | APT BUILDING                  | 210 WEST 89TH ST                                                                | 2441 feet to the N   |

|    |         |                      |                  |                      |
|----|---------|----------------------|------------------|----------------------|
| 38 | 9911904 | SPILL NUMBER 9911904 | 2 WEST 90TH ST   | 2449 feet to the NE  |
| 39 | 9515030 | 240 WEST END AVE     | 240 WEST END AVE | 2498 feet to the WSW |
| 40 | 0412040 | PRIVATE RESIDENCE    | 240 WEST END AVE | 2498 feet to the WSW |
| 41 | 0105791 | 1995 BROADWAY        | 1995 BROADWAY    | 2625 feet to the SW  |

**Closed Status Tank Test Failures --- Total Sites - 29**

| MAP ID | FACILITY ID | FACILITY NAME                        |
|--------|-------------|--------------------------------------|
| 42     | 9903694     | BLDG                                 |
| 43     | 0900502     | APT BLDG TTF                         |
| 44     | 9614401     | 20 PRECINCT NYPD -DDC                |
| 45     | 9512346     | 20 PRECINCT NYPD -DDC                |
| 46     | 0408295     | 150 WEST 82 STREET REALTY ASSOC, LLC |
| 47     | 9906666     | WEST 83RD ST REALITY CORP            |
| 48     | 1216531     | ABOVE GROUND TANK TTF                |
| 49     | 0902145     | APT BLDG                             |
| 50     | 1114440     | COMMERCIAL BUILDING                  |
| 51     | 1104682     | APARTMENT BUILDING                   |
| 52     | 0210864     | LEWIS BRANDEIS HIGH SCHOO            |
| 53     | 9413181     | EXXON CORP                           |
| 54     | 0608521     | APRT                                 |
| 55     | 0310460     | NATIONAL CAR RENTAL SITE             |
| 56     | 0202743     | AVIS RENT A CAR                      |
| 57     | 1003932     | APT BLD TTF                          |
| 58     | 1312078     | BASEMENT                             |
| 59     | 0603441     | BELLECLAIRE HOTEL                    |
| 60     | 0509393     | BELLECLAIRE HOTEL                    |
| 61     | 1305857     | TTF                                  |
| 62     | 9108242     | CONDO 241 W 75TH ST                  |
| 63     | 1215632     | APARTMENT BUILDING - TTF             |
| 64     | 0611481     | 176 WEST 87TH STREET                 |
| 65     | 1403318     | TTF - APARTMENT COMPLEX              |
| 66     | 1206692     | ABOVE GROUND                         |
| 67     | 1407368     | RESIDENTS                            |
| 68     | 9106109     | 52 RIVERSIDE DR                      |
| 69     | 1403485     | RESIDENTS TTF                        |
| 70     | 0701980     | 310 WEST 86TH ST                     |

**Database searched at 1/2 MILE - ASTM required search distance: 1/2 Mile**

| FACILITY STREET           | DISTANCE & DIRECTION |
|---------------------------|----------------------|
| 102 WEST 79TH ST          | 165 feet to the W*   |
| 74 WEST 82ND ST           | 253 feet to the NNE  |
| 120 WEST 82ND STREET      | 416 feet to the N    |
| 120 WEST 82ND STREET      | 416 feet to the N    |
| 150 WEST 82ND ST          | 702 feet to the NNW  |
| 146 WEST 83RD ST          | 792 feet to the N    |
| 172 WEST 79TH             | 865 feet to the WNW  |
| 150 WEST 84TH ST          | 1017 feet to the N   |
| 200 W. 78TH ST            | 1021 feet to the W   |
| 202 WEST 78TH ST          | 1055 feet to the W   |
| 145 WEST 84TH STREET      | 1132 feet to the N   |
| 332 AMSTERDAM AVENUE      | 1138 feet to the W   |
| 141 WEST 73RD STREET      | 1182 feet to the SW  |
| 219 WEST 77TH STREET      | 1228 feet to the W   |
| 216 W 76TH ST             | 1275 feet to the W   |
| 101 WEST 72ND ST          | 1311 feet to the SW  |
| 12 WEST 72ND ST           | 1555 feet to the SSW |
| 250 WEST 77TH STREET      | 1577 feet to the W   |
| 250 WEST 77TH ST          | 1577 feet to the W   |
| 233 WEST 77TH STREET      | 1586 feet to the W   |
| 241 W.75TH ST             | 1647 feet to the W   |
| 166 WEST 72ND STREET      | 1693 feet to the SW  |
| 176 WEST 87TH STREET      | 1824 feet to the N   |
| 465 WEST END AVENUE       | 2005 feet to the NW  |
| 473 WEST END AVE          | 2033 feet to the NW  |
| 307 WEST 79 STRET         | 2063 feet to the WNW |
| 52 RIVERSIDE DR           | 2291 feet to the WNW |
| 277 WEST END AVE          | 2299 feet to the WSW |
| 310- 320 WEST 86TH STREET | 2506 feet to the NNW |

**Closed Status Spills (Unknown Causes & Other Causes) --- Total Sites - 163 Database searched at 1/2 MILE - ASTM required search distance: 1/2 Mile**

| MAP ID | FACILITY ID | FACILITY NAME                         | FACILITY STREET             | DISTANCE & DIRECTION |
|--------|-------------|---------------------------------------|-----------------------------|----------------------|
| 71     | 0904587     | INTERSECTION                          | W. 79TH ST. & COLUMBUS AVE. | 50 feet to the W*    |
| 72     | 0890009     | 204936; NE W 77 ST COLUMBUS AV        | NE W 77 ST COLUMBUS AV      | 79 feet to the SW*   |
| 73     | 9612844     | 51 WEST 81ST ST                       | 51 WEST 81ST ST             | 157 feet to the NNE* |
| 74     | 1510616     | ONE GALLON FUEL OIL SPILL ON CONCRETE | 101 WEST 78TH STREET        | 164 feet to the WSW* |
| 75     | 0401022     | SERVICE BOX 4414                      | 35 WEST 81ST ST             | 172 feet to the NE*  |
| 76     | 8905449     | 118 W 79TH ST/MANHATTAN               | 118 WEST 79TH STREET        | 262 feet to the W    |
| 77     | 9614218     | GURBUZ RESIDENCE                      | 101 WEST 81ST ST APT 103    | 293 feet to the N    |
| 78     | 0401041     | SPILL NUMBER 0401041                  | 32 WEST 82ND ST             | 327 feet to the NE   |
| 79     | 0313030     | SPILL NUMBER 0313030                  | 31 WEST 76TH STREET         | 338 feet to the SSW  |
| 80     | 0411433     | ENNISMORE APARTMENTS INC              | 124 WEST 79TH ST            | 362 feet to the W    |
| 81     | 9512927     | 20 RECINCT NYPD -DDC                  | 120 WEST 82ND STREET        | 416 feet to the N    |
| 82     | 0511030     | BET. COLUMBUS/ AMSTERDAM              | 118 W. 76TH ST.             | 520 feet to the SW   |
| 83     | 0313954     | SPILL NUMBER 0313954                  | 120 WEST 76TH ST.           | 533 feet to the SW   |
| 84     | 0011975     | MANHOLE 57249                         | 211 CENTRAL PARK WEST       | 542 feet to the ENE  |

|     |         |                                          |                                  |                      |
|-----|---------|------------------------------------------|----------------------------------|----------------------|
| 85  | 8903584 | 7 WEST 82ND ST/MANHATTAN                 | 7 WEST 82ND STREET               | 617 feet to the ENE  |
| 86  | 0011330 | TOWNHOUSE                                | 144 WEST 82ND ST                 | 621 feet to the NNW  |
| 87  | 0107348 | SPILL NUMBER 0107348                     | 160 WEST 78TH ST                 | 667 feet to the W    |
| 88  | 9704989 | AMERICAN MUSEUM HISTORY                  | 81ST ST & CENTRAL PK WEST        | 675 feet to the E    |
| 89  | 9105945 | 79TH ST TRANSVERSE                       | 79TH ST TRANSVERSE               | 675 feet to the E    |
| 90  | 0101436 | SPILL NUMBER 0101436                     | CENTRAL PARK W/ W 81ST ST        | 675 feet to the E    |
| 91  | 9914163 | SPILL NUMBER 9914163                     | W 77TH ST/CENT PARK W            | 676 feet to the SSE  |
| 92  | 0708989 | BASMENT                                  | 148 W 76TH ST                    | 686 feet to the WSW  |
| 93  | 9002134 | 163 WEST 76TH ST/MANH                    | 163 WEST 76TH STREET             | 757 feet to the WSW  |
| 94  | 0805106 | 55 W 74 ST                               | 55 W 74TH ST                     | 778 feet to the SSW  |
| 95  | 0607638 | DECLERCQ RESIDENCE                       | 48 WEST 84TH STREET              | 784 feet to the NE   |
| 96  | 0203985 | MULTI-DWELLING RESIDENCE                 | 171 W. 81TH ST                   | 814 feet to the NNW  |
| 97  | 0611800 | PARKING GARAGE                           | 150 WEST 83RD STREET             | 850 feet to the N    |
| 98  | 0914061 | 215875; 136 W 75 STREET                  | 136 W 75 STREET                  | 862 feet to the SW   |
| 99  | 9513823 | 140 W 75TH ST                            | 140 W 75TH ST                    | 889 feet to the WSW  |
| 100 | 8907311 | W 83RD ST& CENT PARK WEST                | W 83RD ST& CENT PARK WEST        | 898 feet to the ENE  |
| 101 | 1306921 | MICHAEL DONOVAN                          | 175 WEST 76TH ST                 | 901 feet to the W    |
| 102 | 0801224 | BROKEN DUCT FOUND IN EXCAVATION          | 52 WEST 74TH STREET              | 939 feet to the SSW  |
| 103 | 0102621 | 135 WEST 74TH ST                         | 135 WEST 74TH ST                 | 947 feet to the SW   |
| 104 | 9910327 | MANHOLE #25889                           | AMSTERDAM AV & 80TH ST           | 949 feet to the NW   |
| 105 | 0604606 | VACANT BUILDING                          | 36 WEST 74TH ST.                 | 964 feet to the SSW  |
| 106 | 9808719 | MANHOLE 29424                            | W 75TH ST & CEN PRK W            | 965 feet to the S    |
| 107 | 0814608 | 214656; WEST 75 ST AND CENTRAL PARK WEST | WEST 75 ST AND CENTRAL PARK WEST | 965 feet to the S    |
| 108 | 0112175 | MANHOLE #2119                            | 475 AMSTERDAM AVE                | 992 feet to the NNW  |
| 109 | 1400018 | LOSS TO ROADWAY                          | 82ND AND AMSTERDAM               | 1004 feet to the NNW |
| 110 | 0009011 | MANHOLE 13704                            | 76TH/AMSTERDAM                   | 1007 feet to the WSW |
| 111 | 0009010 | MANHOLE 13705                            | 76TH ST/AMSTERDAM                | 1007 feet to the WSW |
| 112 | 0814637 | 214793; 141-150 CENTRAL PARK WEST        | 141-150 CENTRAL PARK WEST        | 1020 feet to the S   |
| 113 | 0914003 | 215460; 424-246 AMSTERDAM AVENUE         | 424-246 AMSTERDAM AVENUE         | 1037 feet to the NW  |
| 114 | 0708720 | COMMERCIAL/DWELLING                      | 424 AMSTERDAM AVE                | 1038 feet to the NW  |
| 115 | 0713512 | HOUSE                                    | 67 WEST 73RD ST                  | 1040 feet to the SSW |
| 116 | 9712452 | BROWNSTONE                               | 52 W. 85TH ST APT 1R             | 1052 feet to the NE  |
| 117 | 0908602 | VAULT 9190/8884/9463                     | 200 WEST 79TH ST                 | 1064 feet to the WNW |
| 118 | 9706531 | 200 W. 82ND ST                           | 200 W. 82ND ST                   | 1081 feet to the NNW |
| 119 | 9808769 | PARKING GARAGE                           | 348-354 AMSTERDAM AVE            | 1097 feet to the W   |
| 120 | 9513873 | NORTHEAST CORNER                         | COLUMBUS AVE/EAST 73RD ST        | 1126 feet to the SSW |
| 121 | 0102998 | 200 WEST 76TH ST                         | 332 AMSTERDAM AVENUE             | 1138 feet to the W   |
| 122 | 0706612 | HERTZ RENT A CAR                         | 210 W. 77TH ST.                  | 1176 feet to the W   |
| 123 | 1505465 | CAR RENTAL                               | 221-223 W77TH ST                 | 1228 feet to the W   |
| 124 | 0312284 | NATIONAL CAR RENTAL                      | 219 WEST 77TH STREET             | 1228 feet to the W   |
| 125 | 0607065 | APARTMENT 1-1                            | 101 WEST 85 STREET               | 1231 feet to the NNE |
| 126 | 0606644 | 101 WEST 85TH STREET                     | 101 WEST 85TH STREET             | 1231 feet to the NNE |
| 127 | 0913358 | IN FRONT OF ON WALK                      | 157 WEST 73RD ST                 | 1232 feet to the SW  |
| 128 | 0209565 | SPILL NUMBER 0209565                     | 126 W 73RD ST                    | 1258 feet to the SW  |
| 129 | 9512434 | AVIS RENT A CAR                          | 216 WEST 76TH STREET             | 1275 feet to the W   |
| 130 | 9512234 | AVIS                                     | 216 WEST 76TH ST                 | 1275 feet to the W   |
| 131 | 0711724 | COMMERCIAL BUILDING                      | 216 WEST 76TH STREET             | 1275 feet to the W   |
| 132 | 0608530 | STREET                                   | AMSTERDAM AVE AT WEST 74T        | 1283 feet to the WSW |
| 133 | 9708318 | THE OPERA OWNERS INC                     | 2166 BROADWAY                    | 1289 feet to the W   |
| 134 | 0008420 | OPERA APARTMENTS                         | 2166 BROADWAY                    | 1289 feet to the W   |
| 135 | 9811576 | VAULT #V3716                             | 27 WEST 72ND ST                  | 1299 feet to the SSW |
| 136 | 9910860 | MANHOLE #59227                           | 215 W.76TH ST                    | 1299 feet to the W   |
| 137 | 9000590 | CENTRLA PARK WEST&85TH ST                | CENTRAL PARK WEST&85TH ST        | 1309 feet to the NE  |

|     |         |                                     |                               |                      |
|-----|---------|-------------------------------------|-------------------------------|----------------------|
| 138 | 1104766 | COMMERICAL PROPERTY                 | 40 WEST 86TH ST               | 1318 feet to the NNE |
| 139 | 9214506 | 28-30 W. 86TH ST.                   | 28-30 W. 86TH ST.             | 1326 feet to the NE  |
| 140 | 9714319 | AVIS RENT A CAR                     | 219 W. 76TH STREET            | 1340 feet to the W   |
| 141 | 9906352 | 121 WEST 72ND STREET                | 121 W 72ND ST                 | 1341 feet to the SW  |
| 142 | 0006070 | MANHOLE 29419                       | CENTRAL PK WEST               | 1356 feet to the S   |
| 143 | 9306013 | 2222 BROADWAY/FILENES BASEMENT      | 2222 BROADWAY                 | 1366 feet to the WNW |
| 144 | 9112772 | 1 W 72ND ST/DAKOTA                  | 1 W 72ND ST/DAKOTA            | 1368 feet to the S   |
| 145 | 1500952 | MAN HOLE #27479                     | WEST 78 STREET AND BROADWAY   | 1473 feet to the WNW |
| 146 | 9509545 | WEST 74TH ST/BROADWAY               | WEST 74TH ST/BROADWAY         | 1493 feet to the WSW |
| 147 | 9600735 | 86 STREET TRANSVERSE DPR -DDC       | 86TH STREET & TRANSVERSE ROAD | 1560 feet to the NE  |
| 148 | 0903063 | SERVICE BOX 13680                   | 241 WEST 76 ST                | 1562 feet to the W   |
| 149 | 0811809 | APARTMENTS                          | 235 WEST 76TH ST              | 1562 feet to the W   |
| 150 | 9108106 | CONDO 235 W 75TH ST                 | 235 W.75TH ST                 | 1573 feet to the W   |
| 151 | 0308109 | 235 W. 75TH ST                      | 235 WEST 75TH ST              | 1573 feet to the W   |
| 152 | 0301510 | SPILL NUMBER 0301510                | 2159 BROADWAY                 | 1573 feet to the W   |
| 153 | 0210091 | APARTMENT COMPLEX                   | 250 W 77TH ST                 | 1577 feet to the W   |
| 154 | 9910368 | CO-OPERATIVE                        | 212 W.85TH ST                 | 1609 feet to the NNW |
| 155 | 9714534 | SPILL NUMBER 9714534                | 152 WEST 72ND ST - APT 5B     | 1611 feet to the SW  |
| 156 | 0807618 | 148 WEST 72ND ST                    | 148 WEST 72ND ST              | 1611 feet to the SW  |
| 157 | 0006084 | SPILL NUMBER 0006084                | 64 W 87TH ST                  | 1613 feet to the NNE |
| 158 | 0002592 | MANHOLE #27450                      | 73RD ST/BROADWAY              | 1623 feet to the WSW |
| 159 | 0514747 | APARTMENT                           | 241 WEST 75TH ST              | 1647 feet to the W   |
| 160 | 0701081 | 15 GAL ANTIFREEZE IN MANHOLE #12879 | 17 WEST 71 STREET             | 1668 feet to the SSW |
| 161 | 0404949 | SB12896                             | 17 WEST 71 ST                 | 1668 feet to the SSW |
| 162 | 0207710 | MANHOLE #25950                      | 86TH ST & AMSTERDAM AV        | 1699 feet to the N   |
| 163 | 8702852 | 245 WEST 75TH STREET/ NEW           | 245 WEST 75TH STREET          | 1705 feet to the W   |
| 164 | 9512657 | APTHORP BUILDING                    | 252 WEST 79TH ST              | 1705 feet to the WNW |
| 165 | 0707307 | DRUM RUN                            | 213 WEST 85TH STREET          | 1731 feet to the N   |
| 166 | 0311725 | SPILL NUMBER 0311725                | 159 WEST 71ST ST/BTWN COL     | 1745 feet to the SW  |
| 167 | 9908618 | SPILL NUMBER 9908618                | 400 WEST END AVE              | 1755 feet to the WNW |
| 168 | 9712910 | SPILL NUMBER 9712910                | WEST 72ND ST & BROADWAY       | 1778 feet to the WSW |
| 169 | 0511868 | APT BLDG                            | 342 WEST END AVE              | 1778 feet to the W   |
| 170 | 9913687 | CENTRAL PARK/THE LAKE               | 59TH ST/110TH ST              | 1781 feet to the SSE |
| 171 | 9912733 | CENTRAL PARK LAKE                   | WEST 79TH STREET+CENTRAL      | 1781 feet to the SSE |
| 172 | 9106422 | CENTRAL PARK LAKE,WEST              | CENTRAL PARK LAKE,WEST        | 1781 feet to the SSE |
| 173 | 0707272 | DRUM RUN                            | 119 WEST 87TH STREET          | 1791 feet to the NNE |
| 174 | 0507825 | BUILD ING                           | 23 WEST 87TH STREET           | 1793 feet to the NE  |
| 175 | 9814968 | MANHOLE 27538                       | W 85TH ST/BROADWAY            | 1827 feet to the NNW |
| 176 | 9814099 | 2350 BROADWAY                       | 2350 BROADWAY                 | 1830 feet to the NNW |
| 177 | 9808972 | W79TH ST / WEST END AVE             | W79TH ST / WEST END AVE       | 1851 feet to the WNW |
| 178 | 9714476 | WEST END AV&W 79TH ST               | WEST END AV&W 79TH ST         | 1851 feet to the WNW |
| 179 | 0303245 | MANHOLE 61728                       | WEST END AV/W 77TH ST         | 1851 feet to the W   |
| 180 | 0103043 | MANHOLE 61728                       | WESTEND AVE/W 77TH ST         | 1851 feet to the W   |
| 181 | 0011976 | SPILL NUMBER 0011976                | W 71S ST / CENTRAL PARK W     | 1856 feet to the S   |
| 182 | 9710729 | IN APARTMENT                        | 114 W 88TH ST - APT 1         | 1890 feet to the NNE |
| 183 | 9712912 | 2071 BROADWAY                       | 2071 BROADWAY                 | 1902 feet to the WSW |
| 184 | 9002095 | 101 CENTRAL PARK WEST               | 101 CENTRAL PARK WEST         | 1910 feet to the SSW |
| 185 | 0503314 | 6 BLOCK AREA                        | W 71ST / BROADWAY             | 1915 feet to the SW  |
| 186 | 0209914 | SPILL NUMBER 0209914                | 425 WEST END AVE              | 1927 feet to the NW  |
| 187 | 9513285 | 355 WEST END AVE                    | 355 WEST END AVE              | 1932 feet to the W   |
| 188 | 0306271 | 389 WEST END AVENUE                 | 389 WEST END AVENUE           | 1941 feet to the WNW |
| 189 | 9902131 | MANHOLE 62564                       | WEST END AVE / WEST 83RD      | 1946 feet to the NW  |
| 190 | 0009084 | 305 - IN BROOKLYN OR MANHATTAN?     | 305 W 79TH ST                 | 1989 feet to the WNW |

|     |         |                                      |                               |                      |
|-----|---------|--------------------------------------|-------------------------------|----------------------|
| 191 | 1307187 | APT BLD.                             | 365 WEST END AVE              | 1991 feet to the WNW |
| 192 | 0411668 | MANHOLE # 49901                      | W 84 ST / WEST END AVE        | 2039 feet to the NNW |
| 193 | 0906140 | COMMERCIAL PROPERTY/APT BLDG         | 30 WEST 70TH ST               | 2045 feet to the SSW |
| 194 | 9912234 | MANHOLE TM-1549                      | IFO 154 W70TH ST              | 2067 feet to the SW  |
| 195 | 0401745 | VAULT #V1826                         | WEST 72ND STREET              | 2101 feet to the WSW |
| 196 | 1206031 | THE ORMANDE                          | 2030 BROADWAY                 | 2116 feet to the SW  |
| 197 | 9310521 | 319 WEST 77TH STREET.                | 319 WEST 77TH STREET.         | 2121 feet to the WNW |
| 198 | 9004060 | 100 WEST 89TH ST/MANH                | 100 WEST 89TH STREET          | 2129 feet to the NNE |
| 199 | 9912170 | MANHOLE 61729                        | WEST END AV / W 85TH ST       | 2163 feet to the NNW |
| 200 | 9811082 | MAN HOLE #61729                      | WEST END AV & W 85TH ST       | 2163 feet to the NNW |
| 201 | 0308740 | 91 CENTRAL PARK WEST                 | 11 WEST 69TH STREET           | 2188 feet to the SSW |
| 202 | 0914135 | 216301; 321 W 82 ST AND RIVERSIDE DR | 321 W 82 ST AND RIVERSIDE DR  | 2191 feet to the NW  |
| 203 | 0809964 | VERIZON MANHOLE                      | WEST 87TH ST & BROADWAY       | 2195 feet to the N   |
| 204 | 9815515 | 98 RIVERSIDE DRIVE                   | 98 RIVERSIDE DRIVE            | 2204 feet to the NW  |
| 205 | 9808907 | CHRISTIAN COMMUNITY                  | 309 W.74TH ST                 | 2239 feet to the W   |
| 206 | 1502126 | MAN HOLE 61729                       | WEST END AVE AND 85 AND 86 ST | 2242 feet to the NNW |
| 207 | 0007959 | MANHOLE 61729                        | WEST END AV/BET 85 & 86       | 2242 feet to the NNW |
| 208 | 9814552 | SPILL NUMBER 9814552                 | RIVERSIDE DR / W 79TH ST      | 2312 feet to the WNW |
| 209 | 0914466 | 218418; W 86 ST AND WEST END AVE     | W 86 ST AND WEST END AVE      | 2324 feet to the NNW |
| 210 | 0906576 | VAULT 5837                           | WEST 86TH ST AND WEST END AVE | 2324 feet to the NNW |
| 211 | 0914501 | 218615; W END AVE AND 72ND ST        | W END AVE AND 72ND ST         | 2326 feet to the WSW |
| 212 | 0707548 | COMMERCIAL BUILDING                  | 11 RIVERSIDE DRIVE            | 2329 feet to the W   |
| 213 | 0407891 | 600 COLUMBUS                         | 600 COLUMBUS AVE.             | 2362 feet to the NNE |
| 214 | 0811781 | ROADWAY                              | 2 WEST 69TH ST                | 2382 feet to the SSW |
| 215 | 0011833 | RIVERSIDE DR FROM 76TH               | TO 79TH                       | 2389 feet to the WNW |
| 216 | 0109869 | RAFFERTY RES                         | 336 WEST 84TH ST              | 2400 feet to the NW  |
| 217 | 0705876 | SEVEN GALLONS OF HYDRAULIC FLUID     | 53 WEST 68 STREET             | 2401 feet to the SSW |
| 218 | 0000802 | IN FRONT 545 WEST END AVE            | FRONT 545 WEST END AVE        | 2405 feet to the NNW |
| 219 | 1500997 | PARKING GARAGE                       | 267-273 W87 ST                | 2422 feet to the N   |
| 220 | 9912480 | SPILL NUMBER 9912480                 | 10 WEST 90TH ST               | 2433 feet to the NE  |
| 221 | 0806603 | 210 WEST 89TH ST VAULT #5535         | 210 WEST 89 TH ST             | 2441 feet to the N   |
| 222 | 0200291 | MANHOLE 5535                         | 210 WEST 89TH ST              | 2441 feet to the N   |
| 223 | 0101768 | SPILL NUMBER 0101768                 | 20 RIVERSIDE DR               | 2455 feet to the W   |
| 224 | 0610885 | APARTMENT BUIDLING                   | 255 WEST END AVE              | 2475 feet to the WSW |
| 225 | 0405889 | SERVICE BOX #15862                   | W. 90TH ST./COLUMBUS AVE.     | 2478 feet to the NNE |
| 226 | 9612897 | IFO                                  | 562 WEST END AV               | 2514 feet to the NNW |
| 227 | 1405674 | 562 WEST END AVE                     | 562 WEST END AVE              | 2514 feet to the NNW |
| 228 | 1405504 | EXCAVATION SITE                      | 562 WESTEND AVE               | 2514 feet to the NNW |
| 229 | 9612167 | AMSTERDAM AV                         | BET W.89TH & W.90TH ST        | 2528 feet to the N   |
| 230 | 8906472 | 74 WEST 68 ST                        | 74 W 68TH ST                  | 2550 feet to the SSW |
| 231 | 0202046 | SPILL NUMBER 0202046                 | 574 WEST END AV               | 2570 feet to the N   |
| 232 | 0308676 | IN ROADWAY                           | 20 W. 68TH ST                 | 2598 feet to the SSW |
| 233 | 0407958 | 1995 BROADWAY                        | 1995 BROADWAY                 | 2625 feet to the SW  |

**Closed Status Spills (Miscellaneous Spill Causes) -- Total Sites - 69**

| MAP ID | FACILITY ID | FACILITY NAME             |
|--------|-------------|---------------------------|
| 234    | 0505106     | VAULT 7264                |
| 235    | 0101318     | COLUMBIS AVE              |
| 236    | 9906118     | SPILL NUMBER 9906118      |
| 237    | 1111702     | PVT DWELLING/APT. COMPLEX |
| 238    | 0013297     | EXCELSIOR HOTEL           |
| 239    | 9608499     | 430 COLUMBUS AVE          |
| 240    | 9607683     | 430 COLUMBUS AVE          |

**Database searched at 1/2 MILE - ASTM required search distance: 1/2 Mile**

| FACILITY STREET        | DISTANCE & DIRECTION |
|------------------------|----------------------|
| COLUMBUS AV AT W 79 ST | 50 feet to the W*    |
| W. 78TH ST             | 51 feet to the SW*   |
| 66 WEST 77TH ST        | 143 feet to the SW*  |
| 45 WEST 81 ST          | 155 feet to the NE*  |
| 45 WEST 81ST STREET    | 155 feet to the NE*  |
| 430 COLUMBUS AVE       | 164 feet to the N*   |
| 430 COLUMBUS AVE       | 164 feet to the N*   |

|     |         |                           |                               |                      |
|-----|---------|---------------------------|-------------------------------|----------------------|
| 241 | 9802899 | SPILL NUMBER 9802899      | 101 WEST 78TH ST              | 164 feet to the WSW* |
| 242 | 9802892 | APARTMENT BLDG            | 101 W 78TH ST                 | 164 feet to the WSW* |
| 243 | 0805295 | APT. BUILDING             | 44 WEST 77TH ST               | 166 feet to the SSW* |
| 244 | 1310806 | BASEMENT                  | 35 WEST 81ST ST               | 172 feet to the NE*  |
| 245 | 9007523 | 106 WEST 81ST ST/MANH     | 106 WEST 81ST STREET          | 203 feet to the N    |
| 246 | 0200505 | SPILL NUMBER 0200505      | 25 W 81ST ST                  | 242 feet to the NE   |
| 247 | 9000007 | 64 WEST 82ND ST/MANH      | 64 WEST 82ND STREET           | 252 feet to the NE   |
| 248 | 9414562 | 55 WEST 76TH STREET       | 55 WEST 76TH STREET           | 253 feet to the SSW  |
| 249 | 1308427 | HOME/APT                  | 74 WEST 82 ST                 | 253 feet to the NNE  |
| 250 | 9308078 | 57 W. 76TH STREET         | 57 W. 76TH STREET             | 253 feet to the SSW  |
| 251 | 9003894 | 108 WEST 80TH ST/MANH     | 108 WEST 80TH STREET          | 272 feet to the NW   |
| 252 | 9511954 | 101 WEST 81ST ST          | 101 WEST 81ST ST              | 293 feet to the N    |
| 253 | 1000110 | ENDICOTT APARTMENT CORP.  | 101 WEST 81ST STREET          | 293 feet to the N    |
| 254 | 0602795 | APART                     | 101 WEST 81ST STREET          | 293 feet to the N    |
| 255 | 0514785 | BASEMENT SPILL            | 446 COLUMBUS AV               | 293 feet to the N    |
| 256 | 0401035 | SIDEWALK                  | 32 WEST 82ND ST               | 327 feet to the NE   |
| 257 | 0104721 | SPILL NUMBER 0104721      | 32 WEST 82ND ST               | 327 feet to the NE   |
| 258 | 9600690 | PUBLIC SCHOOL 44          | 100 WEST 77TH ST              | 336 feet to the WSW  |
| 259 | 9509190 | COLUMBUS AVE & 76TH ST    | COLUMBUS AVE & 76TH ST        | 337 feet to the SSW  |
| 260 | 1501064 | MARBOROS REALTY           | 22 WEST 77TH ST               | 353 feet to the S    |
| 261 | 0211129 | SPILL NUMBER 0211129      | 22 WEST 77TH ST               | 353 feet to the S    |
| 262 | 0909623 | APARTMENT                 | 15 WEST 81ST ST               | 361 feet to the ENE  |
| 263 | 9702507 | 60 WEST 76TH ST           | 60 WEST 76TH ST               | 402 feet to the SSW  |
| 264 | 9308723 | 129 WEST 77TH STREET      | 129 WEST 77TH STREET          | 409 feet to the WSW  |
| 265 | 1007020 | APT BUILDING              | 127 WEST 79 ST                | 414 feet to the WNW  |
| 266 | 9700916 | APARTMENT COMPLEX         | 11 WEST 81ST ST               | 423 feet to the ENE  |
| 267 | 1203278 | ALLEYWAY – DRUM RUN       | 11 W.81ST STREET              | 423 feet to the ENE  |
| 268 | 9415054 | 35 W. 82ND ST             | 35 W. 82ND STREET             | 436 feet to the NE   |
| 269 | 1214810 | BASEMENT                  | 131 WEST 78TH ST              | 444 feet to the W    |
| 270 | 0010667 | ROXY HARDWARE             | 469 COLUMBUS AVE              | 477 feet to the NNE  |
| 271 | 1004259 | APARTMENT BUILDING        | 135 WEST 79TH ST              | 486 feet to the WNW  |
| 272 | 9607793 | 473 COLUMBUS AVE/81 & 82  | 473 COLUMBUS AVE/81 & 82      | 528 feet to the NNE  |
| 273 | 0105883 | WEST 79TH STREET AND      | CENTRAL PARK                  | 529 feet to the ESE  |
| 274 | 9906089 | 8223                      | 211 CENTRAL PARK WEST         | 542 feet to the ENE  |
| 275 | 9010890 | 211 CENTRAL PARK W/MANH   | 211 CENTRAL PARK WEST         | 542 feet to the ENE  |
| 276 | 0812909 | CENTRAL PARK              | 211 CENTRAL PARK WEST         | 542 feet to the ENE  |
| 277 | 9711001 | 34–36 WEST 83RD ST        | 34–36 WEST 83RD ST            | 568 feet to the NE   |
| 278 | 8903548 | 7,9,11 WEST 82ND ST/MANH  | 7,9,11 WEST 82ND STREET       | 600 feet to the ENE  |
| 279 | 0613236 | 8 OZ IN MANHOLE # 30582   | WEST 75 STREET & COLUMBUS AVE | 600 feet to the SW   |
| 280 | 8911278 | 27 W 74TH STREET          | 27 W 74TH STREET              | 849 feet to the SSW  |
| 281 | 1402418 | BASEMENT                  | 175 W 76TH ST                 | 901 feet to the W    |
| 282 | 9511281 | 54 WEST 74TH ST           | 54 WEST 74TH ST               | 930 feet to the SSW  |
| 283 | 9511197 | 54 WEST 74TH STREET CONDO | 54 WEST 74TH STREET           | 930 feet to the SSW  |
| 284 | 1407071 | RESIDENT                  | 54 WEST 74TH STREET           | 930 feet to the SSW  |
| 285 | 9606147 | VAULT #6342               | IFO 453 AMSTERDAM AVE         | 959 feet to the NNW  |
| 286 | 9011809 | 200 WEST 79TH ST/MANH     | 200 WEST 79TH STREET          | 1064 feet to the WNW |
| 287 | 9603097 | 10 WEST 86TH ST           | 10 WEST 86TH ST               | 1376 feet to the NE  |
| 288 | 9307715 | 160 WEST 73RD STREET      | 160 WEST 73RD STREET          | 1406 feet to the SW  |
| 289 | 9509544 | WEST 74TH ST/ BROADWAY    | WEST 74TH ST/ BROADWAY        | 1493 feet to the WSW |
| 290 | 0310337 | APARTMENT BUILDING        | 203 W. 85TH ST.               | 1630 feet to the N   |
| 291 | 9106326 | CENTRAL PARK LAKE         | CENTRAL PARK LAKE             | 1781 feet to the SSE |
| 292 | 0514145 | FEEDER M51                | WEST END AVE / 84 STREET      | 2039 feet to the NNW |
| 293 | 0604433 | APARTMENT BUILDING        | 505 WEST END AVE              | 2178 feet to the NNW |

|     |         |                                  |                           |                      |
|-----|---------|----------------------------------|---------------------------|----------------------|
| 294 | 0307135 | STREET                           | WEST 69TH ST/COLUMBUS AV  | 2216 feet to the SSW |
| 295 | 9812964 | FEEDER M52                       | WEST END AVE / 86TH ST    | 2324 feet to the NNW |
| 296 | 9416405 | WISE TOWERS                      | 49 WEST 89TH STREET       | 2326 feet to the NNE |
| 297 | 0310328 | APARTMENT BUILDING               | 19 WEST 89TH STREET       | 2332 feet to the NE  |
| 298 | 1205821 | TRANSFORMER                      | W 78TH ST & RIVERSIDE DR  | 2367 feet to the WNW |
| 299 | 0107530 | ROADSIDE                         | 2000 BROADWAY             | 2413 feet to the SW  |
| 300 | 9209074 | 144 WEST 90TH STREET             | 144 WEST 90TH STREET      | 2508 feet to the NNE |
| 301 | 1102137 | VAULTS V9112/V9328/V9500/SB12447 | WEST 68TH ST AND BROADWAY | 2532 feet to the SW  |
| 302 | 1102131 | ON SOUTH SIDE OF WEST 68 STREET  | BETWEEN AMSTERDAM AVE AND | 2582 feet to the SW  |

**Petroleum Bulk Storage Sites --- Total Sites - 71**

| MAP ID | FACILITY ID | FACILITY NAME                           |
|--------|-------------|-----------------------------------------|
| 303    | 2-611190    | AMERICAN MUSEUM OF NATURAL HISTORY      |
| 304    | NY01442     | AMERICAN MUSEUM OF NATUR                |
| 305    | 2-453811    | THE ORLEANS                             |
| 306    | 2-605641    | PARC 77                                 |
| 307    | 2-148075    | 64-66 W 77 ST                           |
| 308    | 2-606646    | 101 WEST 80TH OWNERS CORP               |
| 309    | NY00039     | 101 W 80 OWNERS CORP                    |
| 310    | 2-271284    | JOBEN REALTY ASSOC                      |
| 311    | 2-210870    | 102 WEST ASSOCIATES                     |
| 312    | 2-098094    | 370 COLUMBUS REALTY LLC                 |
| 313    | 2-272779    | THE PARK BELVEDERE CONDOMINIUM          |
| 314    | 2-607150    | THE EXCELSIOR HOTEL                     |
| 315    | 2-243531    | 51 WEST 81ST CORP.                      |
| 316    | 2-245224    | PARK 44 CORP                            |
| 317    | 2-610232    | THE MUSEUM 77 CONDOMINIUM               |
| 318    | 2-063673    | 81ST DWELLERS                           |
| 319    | 2-338796    | 102 WEST 80TH ST                        |
| 320    | NY10312     | WEST 80 ST ASSOCIATES                   |
| 321    | 2-108332    | D L R H ASSOC                           |
| 322    | 2-316377    | 341 COLUMBUS REALTY CO. LLC             |
| 323    | 2-236756    | 118 TENANTS CORP                        |
| 324    | 2-360066    | 25 WEST 81ST STREET LLC                 |
| 325    | 2-611976    | WALBER 82ND STREET ASSOCIATES           |
| 326    | 2-112283    | 4077 OWNERS CORP                        |
| 327    | 2-211583    | ENDICOTT COMMERCIAL UNIT                |
| 328    | 2-249092    | ENDICOTT APARTMENT CORP.                |
| 329    | 2-353876    | INTERMEDIATE SCHOOL 44 - MANHATTAN M044 |
| 330    | 2-266590    | 3282 OWNERS CORP.                       |
| 331    | 2-272930    | ENNISMORE APARTMENTS INC                |
| 332    | 2-420999    | 22 WEST 77TH STREET                     |
| 333    | NY01319     | ALEIDA REALTY CRP                       |
| 334    | 2-233471    | 15 W 81ST ST TENANTS CORP               |
| 335    | 2-315842    | 60 WEST 76TH STREET                     |
| 336    | 2-244600    | CLIFTON HOUSE OWNERS CORP.              |
| 337    | 2-064726    | 20 W 77 ST                              |
| 338    | 2-217484    | 20TH PCT                                |
| 339    | 2-286192    | 100 WEST 76TH STREET                    |
| 340    | 2-147311    | HAYDEN OWNERS CORP                      |
| 341    | 2-311502    | 4182 TENANTS CORP                       |
| 342    | 2-043877    | RESIDENTIAL APARTMENT BUILDING          |
| 343    | 2-129992    | 125 W 76 ST                             |

**Database searched at 1/8 MILE - ASTM required search distance: Property & Adjacent**

| FACILITY STREET        | DISTANCE & DIRECTION |
|------------------------|----------------------|
| 200 CENTRAL PARK WEST  | 111 feet to the ESE* |
| 179 CENTRAL PARK W     | 111 feet to the ESE* |
| 100 WEST 80TH STREET   | 129 feet to the NNW* |
| 50-52 WEST 77TH STREET | 129 feet to the SSW* |
| 66 WEST 77TH STREET    | 140 feet to the SW*  |
| 101 WEST 80TH STREET   | 146 feet to the NNW* |
| 101 W 80 ST            | 146 feet to the NNW* |
| 101 W. 78TH ST         | 149 feet to the WSW* |
| 102 WEST 79 STREET     | 151 feet to the W*   |
| 370 COLUMBUS AVE       | 152 feet to the WSW* |
| 101 WEST 79TH STREET   | 157 feet to the NW*  |
| 45 WEST 81 STREET      | 162 feet to the NE*  |
| 51 WEST 81ST ST        | 165 feet to the NNE* |
| 44 WEST 77TH STREET    | 169 feet to the SSW* |
| 105 WEST 77TH STREET   | 184 feet to the SW*  |
| 35 WEST 81ST ST        | 185 feet to the NE*  |
| 102 WEST 80TH ST       | 192 feet to the NW*  |
| 103 W 80 ST            | 212 feet to the NNW  |
| 117 WEST 79TH ST       | 246 feet to the NW   |
| 59 WEST 76TH STREET    | 247 feet to the SSW  |
| 118 WEST 79TH STREET   | 247 feet to the W    |
| 25 WEST 81ST STREET    | 258 feet to the NE   |
| 80 WEST 82ND ST        | 259 feet to the NNE  |
| 40 WEST 77 ST          | 262 feet to the S    |
| 440 COLUMBUS AVENUE    | 288 feet to the N    |
| 101 WEST 81ST STREET   | 288 feet to the N    |
| 100 WEST 77TH STREET   | 304 feet to the SW   |
| 32 WEST 82ND STREET    | 342 feet to the NE   |
| 124 WEST 79TH STREET   | 347 feet to the W    |
| 22 WEST 77TH STREET    | 357 feet to the S    |
| 73 W 82 ST             | 381 feet to the NNE  |
| 15 W 81ST ST           | 394 feet to the ENE  |
| 60 WEST 76TH STREET    | 394 feet to the SSW  |
| 127 WEST 79TH STREET   | 400 feet to the NW   |
| 20 WEST 77TH STREET    | 409 feet to the S    |
| 120 WEST 82ND STREET   | 410 feet to the N    |
| 100 WEST 76TH STREET   | 423 feet to the SW   |
| 11 WEST 81ST STREET    | 429 feet to the ENE  |
| 41 WEST 82ND STREET    | 434 feet to the NE   |
| 35 WEST 82ND STREET    | 441 feet to the NE   |
| 125 WEST 76TH STREET   | 447 feet to the WSW  |

|     |          |                                 |                          |                     |
|-----|----------|---------------------------------|--------------------------|---------------------|
| 344 | 2-332240 | 79TH ST. RESIDENCE CORP.        | 135 WEST 79TH STREET     | 480 feet to the WNW |
| 345 | 2-297852 | 57 WEST 75TH ST                 | 57 WEST 75TH ST          | 499 feet to the SSW |
| 346 | 2-064696 | 6-16 WEST 77 STREET             | 6 WEST 77TH ST           | 500 feet to the S   |
| 347 | 2-603532 | WEST 82ND OWNERS CORPORATION    | 107-111 WEST 82ND STREET | 503 feet to the N   |
| 348 | NY00056  | 107-111 W.82 ST.ASSOC.          | 109 W 82 ST              | 503 feet to the N   |
| 349 | 2-607024 | N&R REALTY                      | 471 COLUMBUS AVENUE      | 504 feet to the NNE |
| 350 | NY07044  | N & R REALTY CO                 | 471 COLUMBUS AVE         | 504 feet to the NNE |
| 351 | 2-306142 | APT BUILDING                    | 140 W 79TH ST            | 511 feet to the WNW |
| 352 | 2-608998 | 120 WEST 76TH STREET            | 120 WEST 76TH STREET     | 530 feet to the SW  |
| 353 | NY10324  | WEST SIDE INST SYNG             | 120 W 76 ST              | 530 feet to the SW  |
| 354 | 2-600842 | 145 W. 79TH STREET OWNERS CORP. | 145 W. 79TH STREET       | 537 feet to the WNW |
| 355 | 2-311871 | 83RD STREET OWNERS CORP         | 46 W 83 STREET           | 541 feet to the NE  |
| 356 | 2-214507 | 146 WEST 79 ST                  | 146 WEST 79TH STREET     | 566 feet to the WNW |
| 357 | 2-606629 | CHA REALTY LLC (JOSEPH CHADI)   | 101 WEST 75 ST.          | 572 feet to the SW  |
| 358 | NY05520  | JOSEPH CHADI                    | 101 W 75 ST              | 572 feet to the SW  |
| 359 | 2-113654 | BERESFORD APARTMENTS            | 211 CENTRAL PARK WEST    | 575 feet to the ENE |
| 360 | 2-055549 | 147 W 79TH ST                   | 147 WEST 79TH STREET     | 598 feet to the WNW |
| 361 | 2-357898 | FDNY ENGINE CO. 74              | 120 WEST 83RD STREET     | 608 feet to the N   |
| 362 | 2-358495 | 155 WEST 81 STREET ASSOCIATES   | 155 WEST 81 STREET       | 610 feet to the NNW |
| 363 | 2-200905 | 158 WEST 81ST STREET            | 158 WEST 81ST STREET     | 614 feet to the NNW |
| 364 | 2-607938 | 14-16 WEST 76TH ST., LLC        | 14-16 WEST 76TH STREET   | 617 feet to the S   |
| 365 | NY02492  | CENTRAL PARK REALTY             | 14 W 76 ST               | 623 feet to the S   |
| 366 | 2-281808 | 150 WEST 79 CORP                | 150 WEST 79TH STREET     | 625 feet to the WNW |
| 367 | 2-309133 | RESIDENTIAL BLDG                | 127 W 82 ST              | 628 feet to the N   |
| 368 | 2-602707 | GREYSTONE CONDOMINIUM           | 127 WEST 82ND STREET     | 628 feet to the N   |
| 369 | 2-147370 | 151 W 78 ST                     | 151 WEST 78TH STREET     | 630 feet to the W   |
| 370 | 2-353477 | P.S. 87 - MANHATTAN (M087)      | 160 WEST 78TH STREET     | 638 feet to the W   |
| 371 | 2-198404 | 146 W 82 ST OWNERS CORP         | 146 WEST 82ND STREET     | 639 feet to the NNW |
| 372 | NY00755  | 481 COLUMBUS ASSOC.             | 73 W 83 ST               | 640 feet to the NNE |
| 373 | 2-265926 | HARTFORD REALTY COMPANY, LLC    | 60 W 75 STREET           | 659 feet to the SSW |

#### Hazardous Waste Generators, Transporters -- Total Sites - 130

| MAP ID | FACILITY ID  | FACILITY NAME                       |
|--------|--------------|-------------------------------------|
| 374    | NYP004188918 | CONSOLIDATED EDISON                 |
| 375    | NYP004739587 | CON EDISON                          |
| 376    | NYP004322459 | CON EDISON                          |
| 377    | NYP004322616 | CON EDISON                          |
| 378    | NYP004584280 | CON EDISON                          |
| 379    | NYP004616207 | CON EDISON                          |
| 380    | NYP004616215 | CON EDISON                          |
| 381    | NYP004323150 | CON EDISON                          |
| 382    | NYP004322483 | CON EDISON                          |
| 383    | NYP004322491 | CON EDISON                          |
| 384    | NYP004322475 | CON EDISON                          |
| 385    | NYP004177564 | CONED                               |
| 386    | NYP004191276 | CONSOLIDATED EDISON SB51914         |
| 387    | NYP004252771 | CONSOLIDATED EDISON COMPANY OF NY   |
| 388    | NYP004253761 | CONSOLIDATED EDISON                 |
| 389    | NYP004323655 | CON EDISON                          |
| 390    | NYD061202768 | AMERICAN MUSEUM OF NATIONAL HISTORY |
| 391    | NYP000782847 | AMERICAN MUSEUM OF NATURAL HISTORY  |
| 392    | NYP004084364 | CONSOLIDATED EDISON                 |
| 393    | NYP004322772 | CON EDISON                          |

#### Database searched at 1/8 MILE - ASTM required search distance: Property & Adjacent

| FACILITY STREET                  | DISTANCE & DIRECTION |
|----------------------------------|----------------------|
| WEST 80 ST & COLUMBUS AVE        | 49 feet to the N*    |
| W 80TH ST & COLUMBUS AVE         | 49 feet to the N*    |
| NWC 79 ST & COLUMBUS AVE         | 50 feet to the W*    |
| SWC 79 & COLUMBUS AVE            | 50 feet to the W*    |
| NWC 79 ST & COLUMBUS AVE         | 50 feet to the W*    |
| SWC 79 ST & COLUMBUS AVE         | 50 feet to the W*    |
| 18-120 79 ST & COLUMBUS AVE      | 50 feet to the W*    |
| FO 51-7 W 81 ST EO COLUMBUS AVE  | 74 feet to the NNE*  |
| FO 426-428 COLUMBUS AVE NO 80 ST | 75 feet to the N*    |
| FO 430-32 COLUMBUS AVE NO 80 ST  | 75 feet to the N*    |
| FO 422-424 COLUMBUS AVE          | 76 feet to the N*    |
| W 77TH ST & COLUMBUS AVE         | 79 feet to the SW*   |
| W 77 ST AND COLUMBUS AVE         | 79 feet to the SW*   |
| N/W/C W 77TH ST AND CENTRAL PA   | 79 feet to the SW*   |
| N/E COLUMBUS & 77 ST             | 79 feet to the SW*   |
| NW COLUMBUS & 77 ST              | 79 feet to the SW*   |
| 79TH STREET & COLUMBIA           | 86 feet to the SE*   |
| CENTRAL PARK W & 79TH ST         | 86 feet to the SE*   |
| V0062 - 41-49 W 81ST             | 129 feet to the NE*  |
| FO 41 W 81 ST EO COLUMBUS AVE    | 129 feet to the NE*  |

|     |              |                                  |                                 |                      |
|-----|--------------|----------------------------------|---------------------------------|----------------------|
| 394 | NYD006545883 | ADLERS CLEANERS                  | 445 COLUMBUS AVE                | 132 feet to the NNE* |
| 395 | NYD981083835 | JEFAN CLEANING SERVICE           | 445 COLUMBUS AVENUE             | 132 feet to the NNE* |
| 396 | NYR000225490 | EVELYN BUILDING THE              | 101 W 78TH ST                   | 141 feet to the WSW* |
| 397 | NYP004660627 | CON EDISON                       | 420 COLUMBUS & 80 ST            | 143 feet to the NNW* |
| 398 | NYP004322699 | CON EDISON                       | FO 441 COLUMBUS AVE NO 81 ST    | 144 feet to the NNE* |
| 399 | NYR000176487 | PARK 44 CORPORATION              | 44 W 77TH ST                    | 200 feet to the SSW  |
| 400 | NYP004322335 | CON EDISON                       | FO 440 COLUMBUS AVE NO 81 ST    | 205 feet to the NNE  |
| 401 | NYP004771267 | CON EDISON                       | FO 446 COLUMBUS AVE             | 205 feet to the NNE  |
| 402 | NYP004665659 | CON EDISON                       | 108 W 81 ST                     | 218 feet to the N    |
| 403 | NYP004322806 | CON EDISON                       | FO 108 W 81 ST EO AMSTERDAM AVE | 224 feet to the N    |
| 404 | NYP004771382 | CON EDISON                       | 442 COLUMBUS AVE                | 226 feet to the N    |
| 405 | NYP004177630 | CONSOLIDATED EDISON              | 104 WEST 80 STREET              | 230 feet to the NW   |
| 406 | NYP044177630 | CONSOLIDATED EDISON              | 104 WEST 80 STREET              | 230 feet to the NW   |
| 407 | NYD987038908 | RUDIN MGMT CO /25 WEST 81 STREET | 25 WEST 81 STREET               | 245 feet to the ENE  |
| 408 | NYP004322632 | CON EDISON                       | FO 118 W 79 ST EO AMSTERDAM AVE | 246 feet to the WNW  |
| 409 | NYP004322467 | CON EDISON                       | FO 117 W 79 ST EO AMSTERDAM AVE | 251 feet to the WNW  |
| 410 | NYP004321824 | CON EDISON                       | FO 343 COLUMBUS AVE NO 76 ST    | 258 feet to the SW   |
| 411 | NYP004748158 | CON EDISON                       | OPP 341 COLUMBUS AVE & 76 ST    | 259 feet to the SW   |
| 412 | NYP004199287 | CONSOLIDATED EDISON              | 345 COLUMBUS AVE                | 260 feet to the SSW  |
| 413 | NYP004322756 | CON EDISON                       | FO 112 W 81 ST EO AMSTERDAM AVE | 265 feet to the N    |
| 414 | NYP004165833 | CONSOLIDATED EDISON              | 115 W 77TH ST                   | 267 feet to the WSW  |
| 415 | NYP004724308 | CON EDISON                       | 113 W 78 ST                     | 291 feet to the W    |
| 416 | NYP004321931 | CON EDISON                       | FO 114 W 78 ST EO AMSTERDAM AVE | 299 feet to the WSW  |
| 417 | NYP004762563 | CON ED                           | 340 COLUMBUS AVE                | 325 feet to the SW   |
| 418 | NYP004776233 | CON ED                           | 340 COLUMBUS AVE                | 325 feet to the SW   |
| 419 | NYR000214569 | NYC DEPT OF EDUCATION – I S 44M  | 100 W 77TH ST                   | 325 feet to the SW   |
| 420 | NYP004414678 | CON EDISON                       | 129 W 80TH ST & AMSTERDAM AV    | 332 feet to the NNW  |
| 421 | NYP004323143 | CON EDISON                       | W 82 ST LO COLUMBUS AVE         | 335 feet to the NNE  |
| 422 | NYP004427522 | CON EDISON                       | 468 82ND ST & COLUMBUS AVE      | 335 feet to the NNE  |
| 423 | NYP004657276 | CON EDISON                       | W 82 ST & COLUMBUS AV           | 335 feet to the NNE  |
| 424 | NYP004657888 | CON EDISON                       | N/E/C 82 ST & COLUMBUS AVE      | 335 feet to the NNE  |
| 425 | NYP004255352 | CONSOLIDATED EDISON              | F/O 43 W 76 E/O COLUMBUS AVE    | 336 feet to the SSW  |
| 426 | NYP004124798 | CONSOLIDATED EDISON              | 76 ST & COLUMBUS AVE V6001      | 337 feet to the SW   |
| 427 | NYP004321915 | CON EDISON                       | NWC 76 ST & COLUMBUS AVE        | 337 feet to the SW   |
| 428 | NYP004628343 | CON EDISON                       | W 76 ST & COLUMBUS AVE          | 337 feet to the SW   |
| 429 | NYP004747747 | CON EDISON                       | W 76 ST & COLUMBUS AV           | 337 feet to the SW   |
| 430 | NYP004748166 | CON EDISON                       | 76TH ST & COLUMBUS AVE          | 337 feet to the SW   |
| 431 | NYP004776241 | CON ED                           | N/W/C 76 ST & COLUMBUS AVE      | 337 feet to the SW   |
| 432 | NYP004616223 | CON EDISON                       | 120–28 W 79 & COLUMBUS AVE      | 339 feet to the W    |
| 433 | NYP004322624 | CON EDISON                       | FO 120 W 79 ST EO AMSTERDAM AVE | 347 feet to the WNW  |
| 434 | NYP004177648 | CONSOLIDATED EDISON              | 122 WEST 81 STREET              | 362 feet to the NNW  |
| 435 | NYP004636387 | CON EDISON                       | 20 WEST 82ND STREET             | 374 feet to the ENE  |
| 436 | NYP004177796 | CONED                            | 101 W 82 STREET AND COLUMBUS A  | 386 feet to the NNE  |
| 437 | NYP004169363 | CONSOLIDATED EDISON              | 25 W 76TH ST                    | 388 feet to the S    |
| 438 | NYP004629028 | CON EDISON                       | 25 W 76 ST                      | 388 feet to the S    |
| 439 | NYP004657466 | CON EDISON                       | 55 W 82 ST & COLUMBUS AVE       | 406 feet to the NNE  |
| 440 | NYP004831182 | CON EDISON                       | 127 W 78TH ST                   | 407 feet to the W    |
| 441 | NYP004657474 | CON EDISON                       | 51 W 82 & COLUMBUS AVE          | 407 feet to the NE   |
| 442 | NYP004657482 | CON EDISON                       | 61 W 82 ST & COLUMBUS AVE       | 407 feet to the NNE  |
| 443 | NYP004295259 | CON EDISON                       | F/O 339 COLUMBUS AVE            | 416 feet to the SW   |
| 444 | NYP004322343 | CON EDISON                       | FO 338 COLUMBUS AVE NO 75 ST    | 423 feet to the SW   |
| 445 | NYP004628335 | CON EDISON                       | OPP SIDE 116 W 76 ST            | 445 feet to the SW   |
| 446 | NYP004789236 | CON EDISON                       | 132 W 81ST ST                   | 456 feet to the NNW  |

|     |              |                                      |                                    |                     |
|-----|--------------|--------------------------------------|------------------------------------|---------------------|
| 447 | NYP004657292 | CON EDISON                           | 16-18 W 82 ST & COLUMBUS AV        | 461 feet to the ENE |
| 448 | NYP004250080 | CONSOLIDATED EDISON – SERV BOX 13735 | F/O 26-28 W 76TH ST 7 COLUMBUS AVE | 463 feet to the S   |
| 449 | NYP004190013 | CONSOLIDATED EDISON                  | 29 WEST 82 STREET                  | 464 feet to the NE  |
| 450 | NYP004756003 | CON EDISON                           | 29 W 82ND ST                       | 464 feet to the NE  |
| 451 | NYP004665790 | CON EDISON                           | 111 W 82 ST                        | 471 feet to the N   |
| 452 | NYP004177572 | CONSOLIDATED EDISON                  | 135 W. 78 ST                       | 478 feet to the W   |
| 453 | NYP004323036 | CON EDISON                           | FO 135 78 ST EO AMSTERDAM AVE      | 481 feet to the W   |
| 454 | NYP004461216 | CON EDISON                           | 130 W 80TH ST                      | 483 feet to the NW  |
| 455 | NYP004187662 | CONSOLIDATED EDISON                  | W 78 ST BETW COLUMBUS/AMSTERDAM    | 489 feet to the W   |
| 456 | NYP004177911 | CONSOLIDATED EDISON                  | 23 W 82 ST                         | 496 feet to the NE  |
| 457 | NYP004735023 | CON EDISON                           | 21-23 W 82 ST                      | 496 feet to the NE  |
| 458 | NYP004322954 | CON EDISON                           | FO 140 N 79 ST EO AMSTERDAM AVE    | 514 feet to the WNW |
| 459 | NYP004250080 | CON EDISON SERVICE BOX 13735         | 26-28 W 76TH ST E OF COLUMBUS AVE  | 516 feet to the S   |
| 460 | NYR000066894 | 6-16 WEST 77TH STREET CORP           | 6-16 W 77TH ST                     | 518 feet to the S   |
| 461 | NYP004418547 | CON EDISON                           | F/O 20TH W 76TH ST                 | 524 feet to the S   |
| 462 | NYP004665758 | CON EDISON                           | 26 W 76 ST                         | 526 feet to the S   |
| 463 | NYP004322947 | CON EDISON                           | FO 9-11 W 81 ST EO COLUMBUS AVE    | 529 feet to the E   |
| 464 | NYP004415584 | CON EDISON                           | 47-49 75TH ST & CPW                | 531 feet to the SSW |
| 465 | NYP004322962 | CON EDISON                           | FO 145 W 79 ST & AMSTERDAM AVE     | 534 feet to the WNW |
| 466 | NYP004177580 | CONSOLIDATED EDISON                  | OPP 141 W. 78ST                    | 538 feet to the W   |
| 467 | NYP004188868 | CONSOLIDATED EDISON                  | 43 WEST 75TH ST                    | 545 feet to the SSW |
| 468 | NYP004161949 | CONSOLIDATED EDISON                  | 78TH & 8TH AVE                     | 548 feet to the SE  |
| 469 | NYP004166534 | CONSOLIDATED EDISON                  | 41 W 75TH ST                       | 551 feet to the SSW |
| 470 | NYP004842635 | CON EDISON                           | 140 W 80TH ST                      | 558 feet to the NW  |
| 471 | NYP004853350 | CON ED                               | 140 W 80TH ST                      | 558 feet to the NW  |
| 472 | NYP004652006 | CON EDISON                           | 34 W 83RD ST                       | 563 feet to the NE  |
| 473 | NYP004624887 | CON EDISON                           | 143-144 W 78 ST                    | 563 feet to the W   |
| 474 | NYP004629697 | CON EDISON                           | 143-144 W 78 ST                    | 563 feet to the W   |
| 475 | NYP000927871 | CONSOLIDATED EDISON                  | 211 CENTRAL PARK WEST              | 567 feet to the ENE |
| 476 | NYP004041976 | CONSOLIDATED EDISON                  | V8223-CENTRAL PARK WEST            | 567 feet to the ENE |
| 477 | NYP004057626 | CONSOLIDATED EDISON                  | V8223-211 CENTRAL PARK W           | 567 feet to the ENE |
| 478 | NYP004648887 | CON EDISON                           | 219 CENTRAL PARK WEST              | 567 feet to the ENE |
| 479 | NYP004631966 | CON EDISON                           | 98 W 83 ST                         | 572 feet to the NNE |
| 480 | NYP004629689 | CON EDISON                           | 147-145 W 78 ST                    | 587 feet to the W   |
| 481 | NYP004666665 | CON EDISON                           | 148 WEST 77TH STREET               | 592 feet to the WSW |
| 482 | NYP004323051 | CON EDISON                           | NEC 83 ST & COLUMBUS AVE           | 600 feet to the NNE |
| 483 | NYP004748836 | CON EDISON                           | NWC 83 & COLUMBUS AV               | 600 feet to the NNE |
| 484 | NYP004186664 | CON EDISON                           | W 75TH ST & COLUMBUS AVE           | 600 feet to the SW  |
| 485 | NYP004188868 | CON EDISON                           | W 75TH ST & COLUMBUS AVE           | 600 feet to the SW  |
| 486 | NYP004191227 | CONSOLIDATED EDISON                  | W 75TH STREET AND COLUMBUS AVE     | 600 feet to the SW  |
| 487 | NYP004253407 | CONSOLIDATED EDISON                  | S/W/C W 75 ST & COLUMBUS AVE       | 600 feet to the SW  |
| 488 | NYP004272118 | CON EDISON                           | SWC W 75 & COLUMBUS AVE            | 600 feet to the SW  |
| 489 | NYP004274387 | CON EDISON                           | S/W/C W 75 ST & COLUMBUS AVVE      | 600 feet to the SW  |
| 490 | NYP004177655 | CONSOLIDATED EDISON                  | 146 WEST 80 STREET                 | 617 feet to the NW  |
| 491 | NYR000009456 | NYC BOARD OF EDUCATION               | 160 WEST 78TH STREET               | 622 feet to the W   |
| 492 | NYP004322970 | CON EDISON                           | FO 150 W 79 ST & AMSTERDAM AVE     | 626 feet to the WNW |
| 493 | NYP004322996 | CON EDISON                           | FO 150 W 79 ST & AMSTERDAM AVE     | 626 feet to the WNW |
| 494 | NYP004629713 | CON EDISON                           | 151 W 78 ST                        | 627 feet to the W   |
| 495 | NYP004633319 | CON EDISON                           | F/O 35 W 75 ST                     | 634 feet to the SSW |
| 496 | NYP004657243 | CON EDISON                           | OPP 5 W 82 ST & COLUMBUS AV        | 641 feet to the ENE |
| 497 | NYP004667259 | CON EDISON                           | OPP 5 W 82ND ST & COLUMBUS AVE     | 641 feet to the ENE |
| 498 | NYP004331971 | CON EDISON                           | FO 152 W 78 ST                     | 646 feet to the W   |
| 499 | NYP004331989 | CON EDISON                           | FO 148 W 78 ST                     | 646 feet to the W   |

|     |              |                     |
|-----|--------------|---------------------|
| 500 | NYP004187613 | CONSOLIDATED EDISON |
| 501 | NYP004636353 | CON EDISON          |
| 502 | NYP004323044 | CON EDISON          |
| 503 | NYP004189908 | CONSOLIDATED EDISON |

FRONT OF 104 WEST 75 STREET  
18 W 83 ST & COLUMBUS  
FO 109 W 83 ST & AMSTERDAM AVE  
SB 13554 F/O 106 W 75TH ST

647 feet to the SW  
649 feet to the NE  
654 feet to the N  
654 feet to the SW

**Air Discharge Sites -- Total Sites - 1**

| MAP ID | FACILITY ID | FACILITY NAME        |
|--------|-------------|----------------------|
| 504    | 36061N1208  | BERESFORD APARTMENTS |

**Database searched at 1/8 MILE - Non-ASTM Database**

FACILITY STREET  
211 CENTRAL PARK W

DISTANCE & DIRECTION  
594 feet to the ENE

# Identified Toxic Sites by Proximity

## American Museum of Natural History, New York, NY 10024

\* Compass directions can vary substantially for sites located very close to the subject property address.

| Map Id# | Site Name                           | Site Street                      | Approximate Distance & Direction From Property | Toxic Site Category                     |
|---------|-------------------------------------|----------------------------------|------------------------------------------------|-----------------------------------------|
| 374     | CONSOLIDATED EDISON                 | WEST 80 ST & COLUMBUS AVE        | 49 feet to the N*                              | Hazardous Waste Generator/Transporter   |
| 375     | CON EDISON                          | W 80TH ST & COLUMBUS AVE         | 49 feet to the N*                              | Hazardous Waste Generator/Transporter   |
| 71      | INTERSECTION                        | W. 79TH ST. & COLUMBUS AVE.      | 50 feet to the W*                              | Closed Status Spill (Unk/Other Cause)   |
| 234     | VAULT 7264                          | COLUMBUS AV AT W 79 ST           | 50 feet to the W*                              | Closed Status Spill (Misc. Spill Cause) |
| 376     | CON EDISON                          | NWC 79 ST & COLUMBUS AVE         | 50 feet to the W*                              | Hazardous Waste Generator/Transporter   |
| 377     | CON EDISON                          | SWC 79 & COLUMBUS AVE            | 50 feet to the W*                              | Hazardous Waste Generator/Transporter   |
| 378     | CON EDISON                          | NWC 79 ST & COLUMBUS AVE         | 50 feet to the W*                              | Hazardous Waste Generator/Transporter   |
| 379     | CON EDISON                          | SWC 79 ST & COLUMBUS AVE         | 50 feet to the W*                              | Hazardous Waste Generator/Transporter   |
| 380     | CON EDISON                          | 18-120 79 ST & COLUMBUS AVE      | 50 feet to the W*                              | Hazardous Waste Generator/Transporter   |
| 235     | COLUMBUS AVE                        | W. 78TH ST                       | 51 feet to the SW*                             | Closed Status Spill (Misc. Spill Cause) |
| 381     | CON EDISON                          | FO 51-7 W 81 ST EO COLUMBUS AVE  | 74 feet to the NNE*                            | Hazardous Waste Generator/Transporter   |
| 382     | CON EDISON                          | FO 426-428 COLUMBUS AVE NO 80 ST | 75 feet to the N*                              | Hazardous Waste Generator/Transporter   |
| 383     | CON EDISON                          | FO 430-32 COLUMBUS AVE NO 80 ST  | 75 feet to the N*                              | Hazardous Waste Generator/Transporter   |
| 384     | CON EDISON                          | FO 422-424 COLUMBUS AVE          | 76 feet to the N*                              | Hazardous Waste Generator/Transporter   |
| 72      | 204936; NE W 77 ST COLUMBUS AV      | NE W 77 ST COLUMBUS AV           | 79 feet to the SW*                             | Closed Status Spill (Unk/Other Cause)   |
| 385     | CONED                               | W 77TH ST & COLUMBUS AVE         | 79 feet to the SW*                             | Hazardous Waste Generator/Transporter   |
| 386     | CONSOLIDATED EDISON SB51914         | W 77 ST AND COLUMBUS AVE         | 79 feet to the SW*                             | Hazardous Waste Generator/Transporter   |
| 387     | CONSOLIDATED EDISON COMPANY OF NY   | N/W/C W 77TH ST AND CENTRAL PA   | 79 feet to the SW*                             | Hazardous Waste Generator/Transporter   |
| 388     | CONSOLIDATED EDISON                 | N/E COLUMBUS & 77 ST             | 79 feet to the SW*                             | Hazardous Waste Generator/Transporter   |
| 389     | CON EDISON                          | NW COLUMBUS & 77 ST              | 79 feet to the SW*                             | Hazardous Waste Generator/Transporter   |
| 390     | AMERICAN MUSEUM OF NATIONAL HISTORY | 79TH STREET & COLUMBIA           | 86 feet to the SE*                             | Hazardous Waste Generator/Transporter   |
| 391     | AMERICAN MUSEUM OF NATURAL HISTORY  | CENTRAL PARK W & 79TH ST         | 86 feet to the SE*                             | Hazardous Waste Generator/Transporter   |
| 303     | AMERICAN MUSEUM OF NATURAL HISTORY  | 200 CENTRAL PARK WEST            | 111 feet to the ESE*                           | Petroleum Bulk Storage Site             |
| 304     | AMERICAN MUSEUM OF NATUR            | 179 CENTRAL PARK W               | 111 feet to the ESE*                           | Petroleum Bulk Storage Site             |
| 305     | THE ORLEANS                         | 100 WEST 80TH STREET             | 129 feet to the NNW*                           | Petroleum Bulk Storage Site             |
| 306     | PARC 77                             | 50-52 WEST 77TH STREET           | 129 feet to the SSW*                           | Petroleum Bulk Storage Site             |
| 392     | CONSOLIDATED EDISON                 | V0062 - 41-49 W 81ST             | 129 feet to the NE*                            | Hazardous Waste Generator/Transporter   |
| 393     | CON EDISON                          | FO 41 W 81 ST EO COLUMBUS AVE    | 129 feet to the NE*                            | Hazardous Waste Generator/Transporter   |
| 394     | ADLERS CLEANERS                     | 445 COLUMBUS AVE                 | 132 feet to the NNE*                           | Hazardous Waste Generator/Transporter   |
| 395     | JEFAN CLEANING SERVICE              | 445 COLUMBUS AVENUE              | 132 feet to the NNE*                           | Hazardous Waste Generator/Transporter   |
| 307     | 64-66 W 77 ST                       | 66 WEST 77TH STREET              | 140 feet to the SW*                            | Petroleum Bulk Storage Site             |
| 396     | EVELYN BUILDING THE                 | 101 W 78TH ST                    | 141 feet to the WSW*                           | Hazardous Waste Generator/Transporter   |
| 236     | SPILL NUMBER 9906118                | 66 WEST 77TH ST                  | 143 feet to the SW*                            | Closed Status Spill (Misc. Spill Cause) |
| 397     | CON EDISON                          | 420 COLUMBUS & 80 ST             | 143 feet to the NNW*                           | Hazardous Waste Generator/Transporter   |
| 398     | CON EDISON                          | FO 441 COLUMBUS AVE NO 81 ST     | 144 feet to the NNE*                           | Hazardous Waste Generator/Transporter   |
| 308     | 101 WEST 80TH OWNERS CORP           | 101 WEST 80TH STREET             | 146 feet to the NNW*                           | Petroleum Bulk Storage Site             |
| 309     | 101 W 80 OWNERS CORP                | 101 W 80 ST                      | 146 feet to the NNW*                           | Petroleum Bulk Storage Site             |
| 310     | JOBEN REALTY ASSOC                  | 101 W. 78TH ST                   | 149 feet to the WSW*                           | Petroleum Bulk Storage Site             |
| 311     | 102 WEST ASSOCIATES                 | 102 WEST 79 STREET               | 151 feet to the W*                             | Petroleum Bulk Storage Site             |
| 312     | 370 COLUMBUS REALTY LLC             | 370 COLUMBUS AVE                 | 152 feet to the WSW*                           | Petroleum Bulk Storage Site             |
| 237     | PVT DWELLING/APT. COMPLEX           | 45 WEST 81 ST                    | 155 feet to the NE*                            | Closed Status Spill (Misc. Spill Cause) |
| 238     | EXCELSIOR HOTEL                     | 45 WEST 81ST STREET              | 155 feet to the NE*                            | Closed Status Spill (Misc. Spill Cause) |
| 73      | 51 WEST 81ST ST                     | 51 WEST 81ST ST                  | 157 feet to the NNE*                           | Closed Status Spill (Unk/Other Cause)   |
| 313     | THE PARK BELVEDERE CONDOMINIUM      | 101 WEST 79TH STREET             | 157 feet to the NW*                            | Petroleum Bulk Storage Site             |
| 314     | THE EXCELSIOR HOTEL                 | 45 WEST 81 STREET                | 162 feet to the NE*                            | Petroleum Bulk Storage Site             |

|     |                                       |                                 |                      |                                         |
|-----|---------------------------------------|---------------------------------|----------------------|-----------------------------------------|
| 74  | ONE GALLON FUEL OIL SPILL ON CONCRETE | 101 WEST 78TH STREET            | 164 feet to the WSW* | Closed Status Spill (Unk/Other Cause)   |
| 239 | 430 COLUMBUS AVE                      | 430 COLUMBUS AVE                | 164 feet to the N*   | Closed Status Spill (Misc. Spill Cause) |
| 240 | 430 COLUMBUS AVE                      | 430 COLUMBUS AVE                | 164 feet to the N*   | Closed Status Spill (Misc. Spill Cause) |
| 241 | SPILL NUMBER 9802899                  | 101 WEST 78TH ST                | 164 feet to the WSW* | Closed Status Spill (Misc. Spill Cause) |
| 242 | APARTMENT BLDG                        | 101 W 78TH ST                   | 164 feet to the WSW* | Closed Status Spill (Misc. Spill Cause) |
| 42  | BLDG                                  | 102 WEST 79TH ST                | 165 feet to the W*   | Closed Status Tank Test Failure         |
| 315 | 51 WEST 81ST CORP.                    | 51 WEST 81ST ST                 | 165 feet to the NNE* | Petroleum Bulk Storage Site             |
| 243 | APT. BUILDING                         | 44 WEST 77TH ST                 | 166 feet to the SSW* | Closed Status Spill (Misc. Spill Cause) |
| 316 | PARK 44 CORP                          | 44 WEST 77TH STREET             | 169 feet to the SSW* | Petroleum Bulk Storage Site             |
| 75  | SERVICE BOX 4414                      | 35 WEST 81ST ST                 | 172 feet to the NE*  | Closed Status Spill (Unk/Other Cause)   |
| 244 | BASEMENT                              | 35 WEST 81ST ST                 | 172 feet to the NE*  | Closed Status Spill (Misc. Spill Cause) |
| 317 | THE MUSEUM 77 CONDOMINIUM             | 105 WEST 77TH STREET            | 184 feet to the SW*  | Petroleum Bulk Storage Site             |
| 318 | 81ST DWELLERS                         | 35 WEST 81ST ST                 | 185 feet to the NE*  | Petroleum Bulk Storage Site             |
| 319 | 102 WEST 80TH ST                      | 102 WEST 80TH ST                | 192 feet to the NW*  | Petroleum Bulk Storage Site             |
| 399 | PARK 44 CORPORATION                   | 44 W 77TH ST                    | 200 feet to the SSW  | Hazardous Waste Generator/Transporter   |
| 245 | 106 WEST 81ST ST/MANH                 | 106 WEST 81ST STREET            | 203 feet to the N    | Closed Status Spill (Misc. Spill Cause) |
| 400 | CON EDISON                            | FO 440 COLUMBUS AVE NO 81 ST    | 205 feet to the NNE  | Hazardous Waste Generator/Transporter   |
| 401 | CON EDISON                            | FO 446 COLUMBUS AVE             | 205 feet to the NNE  | Hazardous Waste Generator/Transporter   |
| 320 | WEST 80 ST ASSOCIATES                 | 103 W 80 ST                     | 212 feet to the NNW  | Petroleum Bulk Storage Site             |
| 402 | CON EDISON                            | 108 W 81 ST                     | 218 feet to the N    | Hazardous Waste Generator/Transporter   |
| 403 | CON EDISON                            | FO 108 W 81 ST EO AMSTERDAM AVE | 224 feet to the N    | Hazardous Waste Generator/Transporter   |
| 404 | CON EDISON                            | 442 COLUMBUS AVE                | 226 feet to the N    | Hazardous Waste Generator/Transporter   |
| 405 | CONSOLIDATED EDISON                   | 104 WEST 80 STREET              | 230 feet to the NW   | Hazardous Waste Generator/Transporter   |
| 406 | CONSOLIDATED EDISON                   | 104 WEST 80 STREET              | 230 feet to the NW   | Hazardous Waste Generator/Transporter   |
| 246 | SPILL NUMBER 0200505                  | 25 W 81ST ST                    | 242 feet to the NE   | Closed Status Spill (Misc. Spill Cause) |
| 407 | RUDIN MGMT CO /25 WEST 81 STREET      | 25 WEST 81 STREET               | 245 feet to the ENE  | Hazardous Waste Generator/Transporter   |
| 321 | D L R H ASSOC                         | 117 WEST 79TH ST                | 246 feet to the NW   | Petroleum Bulk Storage Site             |
| 408 | CON EDISON                            | FO 118 W 79 ST EO AMSTERDAM AVE | 246 feet to the WNW  | Hazardous Waste Generator/Transporter   |
| 322 | 341 COLUMBUS REALTY CO. LLC           | 59 WEST 76TH STREET             | 247 feet to the SSW  | Petroleum Bulk Storage Site             |
| 323 | 118 TENANTS CORP                      | 118 WEST 79TH STREET            | 247 feet to the W    | Petroleum Bulk Storage Site             |
| 409 | CON EDISON                            | FO 117 W 79 ST EO AMSTERDAM AVE | 251 feet to the WNW  | Hazardous Waste Generator/Transporter   |
| 7   | 53 W 76TH ST CONDOMINIUM              | 53 W 76TH ST                    | 252 feet to the SSW  | Closed Status Tank Failure              |
| 247 | 64 WEST 82ND ST/MANH                  | 64 WEST 82ND STREET             | 252 feet to the NE   | Closed Status Spill (Misc. Spill Cause) |
| 43  | APT BLDG TTF                          | 74 WEST 82ND ST                 | 253 feet to the NNE  | Closed Status Tank Test Failure         |
| 248 | 55 WEST 76TH STREET                   | 55 WEST 76TH STREET             | 253 feet to the SSW  | Closed Status Spill (Misc. Spill Cause) |
| 249 | HOME/APT                              | 74 WEST 82 ST                   | 253 feet to the NNE  | Closed Status Spill (Misc. Spill Cause) |
| 250 | 57 W. 76TH STREET                     | 57 W. 76TH STREET               | 253 feet to the SSW  | Closed Status Spill (Misc. Spill Cause) |
| 324 | 25 WEST 81ST STREET LLC               | 25 WEST 81ST STREET             | 258 feet to the NE   | Petroleum Bulk Storage Site             |
| 410 | CON EDISON                            | FO 343 COLUMBUS AVE NO 76 ST    | 258 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 325 | WALBER 82ND STREET ASSOCIATES         | 80 WEST 82ND ST                 | 259 feet to the NNE  | Petroleum Bulk Storage Site             |
| 411 | CON EDISON                            | OPP 341 COLUMBUS AVE & 76 ST    | 259 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 412 | CONSOLIDATED EDISON                   | 345 COLUMBUS AVE                | 260 feet to the SSW  | Hazardous Waste Generator/Transporter   |
| 76  | 118 W 79TH ST/MANHATTAN               | 118 WEST 79TH STREET            | 262 feet to the W    | Closed Status Spill (Unk/Other Cause)   |
| 326 | 4077 OWNERS CORP                      | 40 WEST 77 ST                   | 262 feet to the S    | Petroleum Bulk Storage Site             |
| 413 | CON EDISON                            | FO 112 W 81 ST EO AMSTERDAM AVE | 265 feet to the N    | Hazardous Waste Generator/Transporter   |
| 414 | CONSOLIDATED EDISON                   | 115 W 77TH ST                   | 267 feet to the WSW  | Hazardous Waste Generator/Transporter   |
| 251 | 108 WEST 80TH ST/MANH                 | 108 WEST 80TH STREET            | 272 feet to the NW   | Closed Status Spill (Misc. Spill Cause) |
| 327 | ENDICOTT COMMERCIAL UNIT              | 440 COLUMBUS AVENUE             | 288 feet to the N    | Petroleum Bulk Storage Site             |
| 328 | ENDICOTT APARTMENT CORP.              | 101 WEST 81ST STREET            | 288 feet to the N    | Petroleum Bulk Storage Site             |
| 415 | CON EDISON                            | 113 W 78 ST                     | 291 feet to the W    | Hazardous Waste Generator/Transporter   |
| 77  | GURBUZ RESIDENCE                      | 101 WEST 81ST ST APT 103        | 293 feet to the N    | Closed Status Spill (Unk/Other Cause)   |
| 252 | 101 WEST 81ST ST                      | 101 WEST 81ST ST                | 293 feet to the N    | Closed Status Spill (Misc. Spill Cause) |
| 253 | ENDICOTT APARTMENT CORP.              | 101 WEST 81ST STREET            | 293 feet to the N    | Closed Status Spill (Misc. Spill Cause) |

|     |                                         |                                 |                     |                                         |
|-----|-----------------------------------------|---------------------------------|---------------------|-----------------------------------------|
| 254 | APART                                   | 101 WEST 81ST STREET            | 293 feet to the N   | Closed Status Spill (Misc. Spill Cause) |
| 255 | BASEMENT SPILL                          | 446 COLUMBUS AV                 | 293 feet to the N   | Closed Status Spill (Misc. Spill Cause) |
| 416 | CON EDISON                              | FO 114 W 78 ST EO AMSTERDAM AVE | 299 feet to the WSW | Hazardous Waste Generator/Transporter   |
| 329 | INTERMEDIATE SCHOOL 44 – MANHATTAN M044 | 100 WEST 77TH STREET            | 304 feet to the SW  | Petroleum Bulk Storage Site             |
| 8   | 123 W. 79TH STREET                      | 123 W. 79TH STREET              | 315 feet to the WNW | Closed Status Tank Failure              |
| 417 | CON ED                                  | 340 COLUMBUS AVE                | 325 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 418 | CON ED                                  | 340 COLUMBUS AVE                | 325 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 419 | NYC DEPT OF EDUCATION – I S 44M         | 100 W 77TH ST                   | 325 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 78  | SPILL NUMBER 0401041                    | 32 WEST 82ND ST                 | 327 feet to the NE  | Closed Status Spill (Unk/Other Cause)   |
| 256 | SIDEWALK                                | 32 WEST 82ND ST                 | 327 feet to the NE  | Closed Status Spill (Misc. Spill Cause) |
| 257 | SPILL NUMBER 0104721                    | 32 WEST 82ND ST                 | 327 feet to the NE  | Closed Status Spill (Misc. Spill Cause) |
| 420 | CON EDISON                              | 129 W 80TH ST & AMSTERDAM AV    | 332 feet to the NNW | Hazardous Waste Generator/Transporter   |
| 421 | CON EDISON                              | W 82 ST LO COLUMBUS AVE         | 335 feet to the NNE | Hazardous Waste Generator/Transporter   |
| 422 | CON EDISON                              | 468 82ND ST & COLUMBUS AVE      | 335 feet to the NNE | Hazardous Waste Generator/Transporter   |
| 423 | CON EDISON                              | W 82 ST & COLUMBUS AV           | 335 feet to the NNE | Hazardous Waste Generator/Transporter   |
| 424 | CON EDISON                              | N/E/C 82 ST & COLUMBUS AVE      | 335 feet to the NNE | Hazardous Waste Generator/Transporter   |
| 258 | PUBLIC SCHOOL 44                        | 100 WEST 77TH ST                | 336 feet to the WSW | Closed Status Spill (Misc. Spill Cause) |
| 425 | CONSOLIDATED EDISON                     | F/O 43 W 76 E/O COLUMBUS AVE    | 336 feet to the SSW | Hazardous Waste Generator/Transporter   |
| 259 | COLUMBUS AVE & 76TH ST                  | COLUMBUS AVE & 76TH ST          | 337 feet to the SW  | Closed Status Spill (Misc. Spill Cause) |
| 426 | CONSOLIDATED EDISON                     | 76 ST & COLUMBUS AVE V6001      | 337 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 427 | CON EDISON                              | NWC 76 ST & COLUMBUS AVE        | 337 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 428 | CON EDISON                              | W 76 ST & COLUMBUS AVE          | 337 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 429 | CON EDISON                              | W 76 ST & COLUMBUS AV           | 337 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 430 | CON EDISON                              | 76TH ST & COLUMBUS AVE          | 337 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 431 | CON ED                                  | NW/C 76 ST & COLUMBUS AVE       | 337 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 79  | SPILL NUMBER 0313030                    | 31 WEST 76TH STREET             | 338 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 432 | CON EDISON                              | 120–28 W 79 & COLUMBUS AVE      | 339 feet to the W   | Hazardous Waste Generator/Transporter   |
| 330 | 3282 OWNERS CORP.                       | 32 WEST 82ND STREET             | 342 feet to the NE  | Petroleum Bulk Storage Site             |
| 331 | ENNISMORE APARTMENTS INC                | 124 WEST 79TH STREET            | 347 feet to the W   | Petroleum Bulk Storage Site             |
| 433 | CON EDISON                              | FO 120 W 79 ST EO AMSTERDAM AVE | 347 feet to the WNW | Hazardous Waste Generator/Transporter   |
| 260 | MARBOROS REALTY                         | 22 WEST 77TH ST                 | 353 feet to the S   | Closed Status Spill (Misc. Spill Cause) |
| 261 | SPILL NUMBER 0211129                    | 22 WEST 77TH ST                 | 353 feet to the S   | Closed Status Spill (Misc. Spill Cause) |
| 332 | 22 WEST 77TH STREET                     | 22 WEST 77TH STREET             | 357 feet to the S   | Petroleum Bulk Storage Site             |
| 262 | APARTMENT                               | 15 WEST 81ST ST                 | 361 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 80  | ENNISMORE APARTMENTS INC                | 124 WEST 79TH ST                | 362 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 434 | CONSOLIDATED EDISON                     | 122 WEST 81 STREET              | 362 feet to the NNW | Hazardous Waste Generator/Transporter   |
| 435 | CON EDISON                              | 20 WEST 82ND STREET             | 374 feet to the ENE | Hazardous Waste Generator/Transporter   |
| 333 | ALEIDA REALTY CRP                       | 73 W 82 ST                      | 381 feet to the NNE | Petroleum Bulk Storage Site             |
| 436 | CONED                                   | 101 W 82 STREET AND COLUMBUS A  | 386 feet to the NNE | Hazardous Waste Generator/Transporter   |
| 437 | CONSOLIDATED EDISON                     | 25 W 76TH ST                    | 388 feet to the S   | Hazardous Waste Generator/Transporter   |
| 438 | CON EDISON                              | 25 W 76 ST                      | 388 feet to the S   | Hazardous Waste Generator/Transporter   |
| 334 | 15 W 81ST ST TENANTS CORP               | 15 W 81ST ST                    | 394 feet to the ENE | Petroleum Bulk Storage Site             |
| 335 | 60 WEST 76TH STREET                     | 60 WEST 76TH STREET             | 394 feet to the SSW | Petroleum Bulk Storage Site             |
| 336 | CLIFTON HOUSE OWNERS CORP.              | 127 WEST 79TH STREET            | 400 feet to the NW  | Petroleum Bulk Storage Site             |
| 263 | 60 WEST 76TH ST                         | 60 WEST 76TH ST                 | 402 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 439 | CON EDISON                              | 55 W 82 ST & COLUMBUS AVE       | 406 feet to the NNE | Hazardous Waste Generator/Transporter   |
| 440 | CON EDISON                              | 127 W 78TH ST                   | 407 feet to the W   | Hazardous Waste Generator/Transporter   |
| 441 | CON EDISON                              | 51 W 82 & COLUMBUS AVE          | 407 feet to the NE  | Hazardous Waste Generator/Transporter   |
| 442 | CON EDISON                              | 61 W 82 ST & COLUMBUS AVE       | 407 feet to the NNE | Hazardous Waste Generator/Transporter   |
| 264 | 129 WEST 77TH STREET                    | 129 WEST 77TH STREET            | 409 feet to the WSW | Closed Status Spill (Misc. Spill Cause) |
| 337 | 20 W 77 ST                              | 20 WEST 77TH STREET             | 409 feet to the S   | Petroleum Bulk Storage Site             |
| 338 | 20TH PCT                                | 120 WEST 82ND STREET            | 410 feet to the N   | Petroleum Bulk Storage Site             |
| 265 | APT BUILDING                            | 127 WEST 79 ST                  | 414 feet to the WNW | Closed Status Spill (Misc. Spill Cause) |

|     |                                      |                                    |                     |                                         |
|-----|--------------------------------------|------------------------------------|---------------------|-----------------------------------------|
| 44  | 20 PRECINCT NYPD –DDC                | 120 WEST 82ND STREET               | 416 feet to the N   | Closed Status Tank Test Failure         |
| 45  | 20 PRECINCT NYPD –DDC                | 120 WEST 82ND STREET               | 416 feet to the N   | Closed Status Tank Test Failure         |
| 81  | 20 RECINCT NYPD –DDC                 | 120 WEST 82ND STREET               | 416 feet to the N   | Closed Status Spill (Unk/Other Cause)   |
| 443 | CON EDISON                           | F/O 339 COLUMBUS AVE               | 416 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 266 | APARTMENT COMPLEX                    | 11 WEST 81ST ST                    | 423 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 267 | ALLEYWAY – DRUM RUN                  | 11 W.81ST STREET                   | 423 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 339 | 100 WEST 76TH STREET                 | 100 WEST 76TH STREET               | 423 feet to the SW  | Petroleum Bulk Storage Site             |
| 444 | CON EDISON                           | FO 338 COLUMBUS AVE NO 75 ST       | 423 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 340 | HAYDEN OWNERS CORP                   | 11 WEST 81ST STREET                | 429 feet to the ENE | Petroleum Bulk Storage Site             |
| 341 | 4182 TENANTS CORP                    | 41 WEST 82ND STREET                | 434 feet to the NE  | Petroleum Bulk Storage Site             |
| 268 | 35 W. 82ND ST                        | 35 W. 82ND STREET                  | 436 feet to the NE  | Closed Status Spill (Misc. Spill Cause) |
| 342 | RESIDENTIAL APARTMENT BUILDING       | 35 WEST 82ND STREET                | 441 feet to the NE  | Petroleum Bulk Storage Site             |
| 269 | BASEMENT                             | 131 WEST 78TH ST                   | 444 feet to the W   | Closed Status Spill (Misc. Spill Cause) |
| 445 | CON EDISON                           | OPP SIDE 116 W 76 ST               | 445 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 343 | 125 W 76 ST                          | 125 WEST 76TH STREET               | 447 feet to the WSW | Petroleum Bulk Storage Site             |
| 446 | CON EDISON                           | 132 W 81ST ST                      | 456 feet to the NNW | Hazardous Waste Generator/Transporter   |
| 447 | CON EDISON                           | 16–18 W 82 ST & COLUMBUS AV        | 461 feet to the ENE | Hazardous Waste Generator/Transporter   |
| 448 | CONSOLIDATED EDISON – SERV BOX 13735 | F/O 26–28 W 76TH ST 7 COLUMBUS AVE | 463 feet to the S   | Hazardous Waste Generator/Transporter   |
| 449 | CONSOLIDATED EDISON                  | 29 WEST 82 STREET                  | 464 feet to the NE  | Hazardous Waste Generator/Transporter   |
| 450 | CON EDISON                           | 29 W 82ND ST                       | 464 feet to the NE  | Hazardous Waste Generator/Transporter   |
| 451 | CON EDISON                           | 111 W 82 ST                        | 471 feet to the N   | Hazardous Waste Generator/Transporter   |
| 270 | ROXY HARDWARE                        | 469 COLUMBUS AVE                   | 477 feet to the NNE | Closed Status Spill (Misc. Spill Cause) |
| 452 | CONSOLIDATED EDISON                  | 135 W. 78 ST                       | 478 feet to the W   | Hazardous Waste Generator/Transporter   |
| 344 | 79TH ST. RESIDENCE CORP.             | 135 WEST 79TH STREET               | 480 feet to the WNW | Petroleum Bulk Storage Site             |
| 453 | CON EDISON                           | FO 135 78 ST EO AMSTERDAM AVE      | 481 feet to the W   | Hazardous Waste Generator/Transporter   |
| 454 | CON EDISON                           | 130 W 80TH ST                      | 483 feet to the NW  | Hazardous Waste Generator/Transporter   |
| 271 | APARTMENT BUILDING                   | 135 WEST 79TH ST                   | 486 feet to the WNW | Closed Status Spill (Misc. Spill Cause) |
| 455 | CONSOLIDATED EDISON                  | W 78 ST BETW COLUMBUS/AMSTERDAM    | 489 feet to the W   | Hazardous Waste Generator/Transporter   |
| 456 | CONSOLIDATED EDISON                  | 23 W 82 ST                         | 496 feet to the NE  | Hazardous Waste Generator/Transporter   |
| 457 | CON EDISON                           | 21–23 W 82 ST                      | 496 feet to the NE  | Hazardous Waste Generator/Transporter   |
| 345 | 57 WEST 75TH ST                      | 57 WEST 75TH ST                    | 499 feet to the SSW | Petroleum Bulk Storage Site             |
| 346 | 6–16 WEST 77 STREET                  | 6 WEST 77TH ST                     | 500 feet to the S   | Petroleum Bulk Storage Site             |
| 347 | WEST 82ND OWNERS CORPORATION         | 107–111 WEST 82ND STREET           | 503 feet to the N   | Petroleum Bulk Storage Site             |
| 348 | 107–111 W.82 ST.ASSOC.               | 109 W 82 ST                        | 503 feet to the N   | Petroleum Bulk Storage Site             |
| 349 | N&R REALTY                           | 471 COLUMBUS AVENUE                | 504 feet to the NNE | Petroleum Bulk Storage Site             |
| 350 | N & R REALTY CO                      | 471 COLUMBUS AVE                   | 504 feet to the NNE | Petroleum Bulk Storage Site             |
| 351 | APT BUILDING                         | 140 W 79TH ST                      | 511 feet to the WNW | Petroleum Bulk Storage Site             |
| 458 | CON EDISON                           | FO 140 N 79 ST EO AMSTERDAM AVE    | 514 feet to the WNW | Hazardous Waste Generator/Transporter   |
| 459 | CON EDISON SERVICE BOX 13735         | 26–28 W 76TH ST E OF COLUMBUS AVE  | 516 feet to the S   | Hazardous Waste Generator/Transporter   |
| 460 | 6–16 WEST 77TH STREET CORP           | 6–16 W 77TH ST                     | 518 feet to the S   | Hazardous Waste Generator/Transporter   |
| 82  | BET. COLUMBUS/ AMSTERDAM             | 118 W. 76TH ST.                    | 520 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 461 | CON EDISON                           | F/O 20TH W 76TH ST                 | 524 feet to the S   | Hazardous Waste Generator/Transporter   |
| 462 | CON EDISON                           | 26 W 76 ST                         | 526 feet to the S   | Hazardous Waste Generator/Transporter   |
| 272 | 473 COLUMBUS AVE/81 & 82             | 473 COLUMBUS AVE/81 & 82           | 528 feet to the NNE | Closed Status Spill (Misc. Spill Cause) |
| 273 | WEST 79TH STREET AND                 | CENTRAL PARK                       | 529 feet to the ESE | Closed Status Spill (Misc. Spill Cause) |
| 463 | CON EDISON                           | FO 9–11 W 81 ST EO COLUMBUS AVE    | 529 feet to the E   | Hazardous Waste Generator/Transporter   |
| 352 | 120 WEST 76TH STREET                 | 120 WEST 76TH STREET               | 530 feet to the SW  | Petroleum Bulk Storage Site             |
| 353 | WEST SIDE INST SYNG                  | 120 W 76 ST                        | 530 feet to the SW  | Petroleum Bulk Storage Site             |
| 464 | CON EDISON                           | 47–49 75TH ST & CPW                | 531 feet to the SSW | Hazardous Waste Generator/Transporter   |
| 83  | SPILL NUMBER 0313954                 | 120 WEST 76TH ST.                  | 533 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 465 | CON EDISON                           | FO 145 W 79 ST & AMSTERDAM AVE     | 534 feet to the WNW | Hazardous Waste Generator/Transporter   |
| 354 | 145 W. 79TH STREET OWNERS CORP.      | 145 W. 79TH STREET                 | 537 feet to the WNW | Petroleum Bulk Storage Site             |
| 466 | CONSOLIDATED EDISON                  | OPP 141 W. 78ST                    | 538 feet to the W   | Hazardous Waste Generator/Transporter   |

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| 355 | 83RD STREET OWNERS CORP       | 46 W 83 STREET                 | 541 feet to the NE  | Petroleum Bulk Storage Site             |
| 84  | MANHOLE 57249                 | 211 CENTRAL PARK WEST          | 542 feet to the ENE | Closed Status Spill (Unk/Other Cause)   |
| 274 | 8223                          | 211 CENTRAL PARK WEST          | 542 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 275 | 211 CENTRAL PARK W/MANH       | 211 CENTRAL PARK WEST          | 542 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 276 | CENTRAL PARK                  | 211 CENTRAL PARK WEST          | 542 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 467 | CONSOLIDATED EDISON           | 43 WEST 75TH ST                | 545 feet to the SSW | Hazardous Waste Generator/Transporter   |
| 468 | CONSOLIDATED EDISON           | 78TH & 8TH AVE                 | 548 feet to the SE  | Hazardous Waste Generator/Transporter   |
| 469 | CONSOLIDATED EDISON           | 41 W 75TH ST                   | 551 feet to the SSW | Hazardous Waste Generator/Transporter   |
| 470 | CON EDISON                    | 140 W 80TH ST                  | 558 feet to the NW  | Hazardous Waste Generator/Transporter   |
| 471 | CON ED                        | 140 W 80TH ST                  | 558 feet to the NW  | Hazardous Waste Generator/Transporter   |
| 472 | CON EDISON                    | 34 W 83RD ST                   | 563 feet to the NE  | Hazardous Waste Generator/Transporter   |
| 473 | CON EDISON                    | 143-144 W 78 ST                | 563 feet to the W   | Hazardous Waste Generator/Transporter   |
| 474 | CON EDISON                    | 143-144 W 78 ST                | 563 feet to the W   | Hazardous Waste Generator/Transporter   |
| 356 | 146 WEST 79 ST                | 146 WEST 79TH STREET           | 566 feet to the WNW | Petroleum Bulk Storage Site             |
| 475 | CONSOLIDATED EDISON           | 211 CENTRAL PARK WEST          | 567 feet to the ENE | Hazardous Waste Generator/Transporter   |
| 476 | CONSOLIDATED EDISON           | V8223-CENTRAL PARK WEST        | 567 feet to the ENE | Hazardous Waste Generator/Transporter   |
| 477 | CONSOLIDATED EDISON           | V8223-211 CENTRAL PARK W       | 567 feet to the ENE | Hazardous Waste Generator/Transporter   |
| 478 | CON EDISON                    | 219 CENTRAL PARK WEST          | 567 feet to the ENE | Hazardous Waste Generator/Transporter   |
| 277 | 34-36 WEST 83RD ST            | 34-36 WEST 83RD ST             | 568 feet to the NE  | Closed Status Spill (Misc. Spill Cause) |
| 357 | CHA REALTY LLC (JOSEPH CHADI) | 101 WEST 75 ST.                | 572 feet to the SW  | Petroleum Bulk Storage Site             |
| 358 | JOSEPH CHADI                  | 101 W 75 ST                    | 572 feet to the SW  | Petroleum Bulk Storage Site             |
| 479 | CON EDISON                    | 98 W 83 ST                     | 572 feet to the NNE | Hazardous Waste Generator/Transporter   |
| 359 | BERESFORD APARTMENTS          | 211 CENTRAL PARK WEST          | 575 feet to the ENE | Petroleum Bulk Storage Site             |
| 480 | CON EDISON                    | 147-145 W 78 ST                | 587 feet to the W   | Hazardous Waste Generator/Transporter   |
| 481 | CON EDISON                    | 148 WEST 77TH STREET           | 592 feet to the WSW | Hazardous Waste Generator/Transporter   |
| 504 | BERESFORD APARTMENTS          | 211 CENTRAL PARK W             | 594 feet to the ENE | Air Discharge Site                      |
| 9   | RESIDENCE                     | 29 WEST 75TH STREET            | 598 feet to the SSW | Closed Status Tank Failure              |
| 360 | 147 W 79TH ST                 | 147 WEST 79TH STREET           | 598 feet to the WNW | Petroleum Bulk Storage Site             |
| 278 | 7,9,11 WEST 82ND ST/MANH      | 7,9,11 WEST 82ND STREET        | 600 feet to the ENE | Closed Status Spill (Misc. Spill Cause) |
| 279 | 8 OZ IN MANHOLE # 30582       | WEST 75 STREET & COLUMBUS AVE  | 600 feet to the SW  | Closed Status Spill (Misc. Spill Cause) |
| 482 | CON EDISON                    | NEC 83 ST & COLUMBUS AVE       | 600 feet to the NNE | Hazardous Waste Generator/Transporter   |
| 483 | CON EDISON                    | NWC 83 & COLUMBUS AV           | 600 feet to the NNE | Hazardous Waste Generator/Transporter   |
| 484 | CON EDISON                    | W 75TH ST & COLUMBUS AVE       | 600 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 485 | CON EDISON                    | W 75TH ST & COLUMBUS AVE       | 600 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 486 | CONSOLIDATED EDISON           | W 75TH STREET AND COLUMBUS AVE | 600 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 487 | CONSOLIDATED EDISON           | S/W/C W 75 ST & COLUMBUS AVE   | 600 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 488 | CON EDISON                    | SWC W 75 & COLUMBUS AVE        | 600 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 489 | CON EDISON                    | S/W/C W 75 ST & COLUMBUS AVVE  | 600 feet to the SW  | Hazardous Waste Generator/Transporter   |
| 361 | FDNY ENGINE CO. 74            | 120 WEST 83RD STREET           | 608 feet to the N   | Petroleum Bulk Storage Site             |
| 362 | 155 WEST 81 STREET ASSOCIATES | 155 WEST 81 STREET             | 610 feet to the NNW | Petroleum Bulk Storage Site             |
| 363 | 158 WEST 81ST STREET          | 158 WEST 81ST STREET           | 614 feet to the NNW | Petroleum Bulk Storage Site             |
| 85  | 7 WEST 82ND ST/MANHATTAN      | 7 WEST 82ND STREET             | 617 feet to the ENE | Closed Status Spill (Unk/Other Cause)   |
| 364 | 14-16 WEST 76TH ST., LLC      | 14-16 WEST 76TH STREET         | 617 feet to the S   | Petroleum Bulk Storage Site             |
| 490 | CONSOLIDATED EDISON           | 146 WEST 80 STREET             | 617 feet to the NW  | Hazardous Waste Generator/Transporter   |
| 86  | TOWNHOUSE                     | 144 WEST 82ND ST               | 621 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 491 | NYC BOARD OF EDUCATION        | 160 WEST 78TH STREET           | 622 feet to the W   | Hazardous Waste Generator/Transporter   |
| 365 | CENTRAL PARK REALTY           | 14 W 76 ST                     | 623 feet to the S   | Petroleum Bulk Storage Site             |
| 366 | 150 WEST 79 CORP              | 150 WEST 79TH STREET           | 625 feet to the WNW | Petroleum Bulk Storage Site             |
| 492 | CON EDISON                    | FO 150 W 79 ST & AMSTERDAM AVE | 626 feet to the WNW | Hazardous Waste Generator/Transporter   |
| 493 | CON EDISON                    | FO 150 W 79 ST & AMSTERDAM AVE | 626 feet to the WNW | Hazardous Waste Generator/Transporter   |
| 494 | CON EDISON                    | 151 W 78 ST                    | 627 feet to the W   | Hazardous Waste Generator/Transporter   |
| 367 | RESIDENTIAL BLDG              | 127 W 82 ST                    | 628 feet to the N   | Petroleum Bulk Storage Site             |
| 368 | GREYSTONE CONDOMINIUM         | 127 WEST 82ND STREET           | 628 feet to the N   | Petroleum Bulk Storage Site             |

|     |                                          |                                  |                      |                                         |
|-----|------------------------------------------|----------------------------------|----------------------|-----------------------------------------|
| 369 | 151 W 78 ST                              | 151 WEST 78TH STREET             | 630 feet to the W    | Petroleum Bulk Storage Site             |
| 495 | CON EDISON                               | F/O 35 W 75 ST                   | 634 feet to the SSW  | Hazardous Waste Generator/Transporter   |
| 370 | P.S. 87 – MANHATTAN (M087)               | 160 WEST 78TH STREET             | 638 feet to the W    | Petroleum Bulk Storage Site             |
| 371 | 146 W 82 ST OWNERS CORP                  | 146 WEST 82ND STREET             | 639 feet to the NNW  | Petroleum Bulk Storage Site             |
| 372 | 481 COLUMBUS ASSOC.                      | 73 W 83 ST                       | 640 feet to the NNE  | Petroleum Bulk Storage Site             |
| 496 | CON EDISON                               | OPP 5 W 82 ST & COLUMBUS AV      | 641 feet to the ENE  | Hazardous Waste Generator/Transporter   |
| 497 | CON EDISON                               | OPP 5 W 82ND ST & COLUMBUS AVE   | 641 feet to the ENE  | Hazardous Waste Generator/Transporter   |
| 498 | CON EDISON                               | FO 152 W 78 ST                   | 646 feet to the W    | Hazardous Waste Generator/Transporter   |
| 499 | CON EDISON                               | FO 148 W 78 ST                   | 646 feet to the W    | Hazardous Waste Generator/Transporter   |
| 500 | CONSOLIDATED EDISON                      | FRONT OF 104 WEST 75 STREET      | 647 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 501 | CON EDISON                               | 18 W 83 ST & COLUMBUS            | 649 feet to the NE   | Hazardous Waste Generator/Transporter   |
| 502 | CON EDISON                               | FO 109 W 83 ST & AMSTERDAM AVE   | 654 feet to the N    | Hazardous Waste Generator/Transporter   |
| 503 | CONSOLIDATED EDISON                      | SB 13554 F/O 106 W 75TH ST       | 654 feet to the SW   | Hazardous Waste Generator/Transporter   |
| 373 | HARTFORD REALTY COMPANY, LLC             | 60 W 75 STREET                   | 659 feet to the SSW  | Petroleum Bulk Storage Site             |
| 87  | SPILL NUMBER 0107348                     | 160 WEST 78TH ST                 | 667 feet to the W    | Closed Status Spill (Unk/Other Cause)   |
| 88  | AMERICAN MUSEUM HISTORY                  | 81ST ST & CENTRAL PK WEST        | 675 feet to the E    | Closed Status Spill (Unk/Other Cause)   |
| 89  | 79TH ST TRANSVERSE                       | 79TH ST TRANSVERSE               | 675 feet to the E    | Closed Status Spill (Unk/Other Cause)   |
| 90  | SPILL NUMBER 0101436                     | CENTRAL PARK W/ W 81ST ST        | 675 feet to the E    | Closed Status Spill (Unk/Other Cause)   |
| 91  | SPILL NUMBER 9914163                     | W 77TH ST/CENT PARK W            | 676 feet to the SSE  | Closed Status Spill (Unk/Other Cause)   |
| 92  | BASMENT                                  | 148 W 76TH ST                    | 686 feet to the WSW  | Closed Status Spill (Unk/Other Cause)   |
| 10  | 102 WEST 75TH ST                         | 102 WEST 75TH ST                 | 699 feet to the SW   | Closed Status Tank Failure              |
| 11  | 100 WEST 75TH STREET                     | 100 WEST 75TH STREET             | 699 feet to the SW   | Closed Status Tank Failure              |
| 12  | APARTMENT                                | 150 WEST 82ND STREET             | 702 feet to the NNW  | Closed Status Tank Failure              |
| 46  | 150 WEST 82 STREET REALTY ASSOC, LLC     | 150 WEST 82ND ST                 | 702 feet to the NNW  | Closed Status Tank Test Failure         |
| 93  | 163 WEST 76TH ST/MANH                    | 163 WEST 76TH STREET             | 757 feet to the WSW  | Closed Status Spill (Unk/Other Cause)   |
| 13  | 139 WEST 82ND ST/MANH                    | 139 WEST 82ND STREET             | 772 feet to the NNW  | Closed Status Tank Failure              |
| 94  | 55 W 74 ST                               | 55 W 74TH ST                     | 778 feet to the SSW  | Closed Status Spill (Unk/Other Cause)   |
| 95  | DECLERCQ RESIDENCE                       | 48 WEST 84TH STREET              | 784 feet to the NE   | Closed Status Spill (Unk/Other Cause)   |
| 47  | WEST 83RD ST REALTY CORP                 | 146 WEST 83RD ST                 | 792 feet to the N    | Closed Status Tank Test Failure         |
| 96  | MULTI-DWELLING RESIDENCE                 | 171 W. 81TH ST                   | 814 feet to the NNW  | Closed Status Spill (Unk/Other Cause)   |
| 4   | CON ED                                   | 33 W 74TH ST                     | 827 feet to the SSW  | Active Haz Spill (Unknown/Other Cause)  |
| 280 | 27 W 74TH STREET                         | 27 W 74TH STREET                 | 849 feet to the SSW  | Closed Status Spill (Misc. Spill Cause) |
| 97  | PARKING GARAGE                           | 150 WEST 83RD STREET             | 850 feet to the N    | Closed Status Spill (Unk/Other Cause)   |
| 98  | 215875; 136 W 75 STREET                  | 136 W 75 STREET                  | 862 feet to the SW   | Closed Status Spill (Unk/Other Cause)   |
| 48  | ABOVE GROUND TANK TTF                    | 172 WEST 79TH                    | 865 feet to the WNW  | Closed Status Tank Test Failure         |
| 99  | 140 W 75TH ST                            | 140 W 75TH ST                    | 889 feet to the WSW  | Closed Status Spill (Unk/Other Cause)   |
| 100 | W 83RD ST& CENT PARK WEST                | W 83RD ST& CENT PARK WEST        | 898 feet to the ENE  | Closed Status Spill (Unk/Other Cause)   |
| 101 | MICHAEL DONOVAN                          | 175 WEST 76TH ST                 | 901 feet to the W    | Closed Status Spill (Unk/Other Cause)   |
| 281 | BASEMENT                                 | 175 W 76TH ST                    | 901 feet to the W    | Closed Status Spill (Misc. Spill Cause) |
| 282 | 54 WEST 74TH ST                          | 54 WEST 74TH ST                  | 930 feet to the SSW  | Closed Status Spill (Misc. Spill Cause) |
| 283 | 54 WEST 74TH STREET CONDO                | 54 WEST 74TH STREET              | 930 feet to the SSW  | Closed Status Spill (Misc. Spill Cause) |
| 284 | RESIDENT                                 | 54 WEST 74TH STREET              | 930 feet to the SSW  | Closed Status Spill (Misc. Spill Cause) |
| 102 | BROKEN DUCT FOUND IN EXCAVATION          | 52 WEST 74TH STREET              | 939 feet to the SSW  | Closed Status Spill (Unk/Other Cause)   |
| 103 | 135 WEST 74TH ST                         | 135 WEST 74TH ST                 | 947 feet to the SW   | Closed Status Spill (Unk/Other Cause)   |
| 104 | MANHOLE #25889                           | AMSTERDAM AV & 80TH ST           | 949 feet to the NW   | Closed Status Spill (Unk/Other Cause)   |
| 285 | VAULT #6342                              | IFO 453 AMSTERDAM AVE            | 959 feet to the NNW  | Closed Status Spill (Misc. Spill Cause) |
| 105 | VACANT BUILDING                          | 36 WEST 74TH ST.                 | 964 feet to the SSW  | Closed Status Spill (Unk/Other Cause)   |
| 106 | MANHOLE 29424                            | W 75TH ST & CEN PRK W            | 965 feet to the S    | Closed Status Spill (Unk/Other Cause)   |
| 107 | 214656; WEST 75 ST AND CENTRAL PARK WEST | WEST 75 ST AND CENTRAL PARK WEST | 965 feet to the S    | Closed Status Spill (Unk/Other Cause)   |
| 108 | MANHOLE #2119                            | 475 AMSTERDAM AVE                | 992 feet to the NNW  | Closed Status Spill (Unk/Other Cause)   |
| 14  | APARTMENT BUIDLING                       | 15 WEST 84TH STREET              | 1003 feet to the NE  | Closed Status Tank Failure              |
| 109 | LOSS TO ROADWAY                          | 82ND AND AMSTERDAM               | 1004 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 110 | MANHOLE 13704                            | 76TH/AMSTERDAM                   | 1007 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |

|     |                                   |                           |                      |                                         |
|-----|-----------------------------------|---------------------------|----------------------|-----------------------------------------|
| 111 | MANHOLE 13705                     | 76TH ST/AMSTERDAM         | 1007 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 49  | APT BLDG                          | 150 WEST 84TH ST          | 1017 feet to the N   | Closed Status Tank Test Failure         |
| 112 | 214793; 141-150 CENTRAL PARK WEST | 141-150 CENTRAL PARK WEST | 1020 feet to the S   | Closed Status Spill (Unk/Other Cause)   |
| 50  | COMMERCIAL BUILDING               | 200 W. 78TH ST            | 1021 feet to the W   | Closed Status Tank Test Failure         |
| 113 | 215460; 424-246 AMSTERDAM AVENUE  | 424-246 AMSTERDAM AVENUE  | 1037 feet to the NW  | Closed Status Spill (Unk/Other Cause)   |
| 114 | COMMERCIAL/DWELLING               | 424 AMSTERDAM AVE         | 1038 feet to the NW  | Closed Status Spill (Unk/Other Cause)   |
| 115 | HOUSE                             | 67 WEST 73RD ST           | 1040 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 116 | BROWNSTONE                        | 52 W. 85TH ST APT 1R      | 1052 feet to the NE  | Closed Status Spill (Unk/Other Cause)   |
| 51  | APARTMENT BUILDING                | 202 WEST 78TH ST          | 1055 feet to the W   | Closed Status Tank Test Failure         |
| 117 | VAULT 9190/8884/9463              | 200 WEST 79TH ST          | 1064 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 286 | 200 WEST 79TH ST/MANH             | 200 WEST 79TH STREET      | 1064 feet to the WNW | Closed Status Spill (Misc. Spill Cause) |
| 15  | 201 WEST 77TH STREET              | 201 WEST 77TH STREET      | 1065 feet to the W   | Closed Status Tank Failure              |
| 16  | APT COMPLEX                       | 10 WEST 74TH ST           | 1066 feet to the S   | Closed Status Tank Failure              |
| 118 | 200 W. 82ND ST                    | 200 W. 82ND ST            | 1081 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 119 | PARKING GARAGE                    | 348-354 AMSTERDAM AVE     | 1097 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 17  | 24 WEST 85TH ST/MANH              | 24 WEST 85TH STREET       | 1116 feet to the NE  | Closed Status Tank Failure              |
| 120 | NORTHEAST CORNER                  | COLUMBUS AVE/EAST 73RD ST | 1126 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 52  | LEWIS BRANDEIS HIGH SCHOO         | 145 WEST 84TH STREET      | 1132 feet to the N   | Closed Status Tank Test Failure         |
| 18  | EXXONMOBIL                        | 332 AMSTERDAM AVENUE      | 1138 feet to the W   | Closed Status Tank Failure              |
| 19  | EXXONMOBIL                        | 332 AMSTERDAM AVENUE      | 1138 feet to the W   | Closed Status Tank Failure              |
| 20  | EXXONMOBIL                        | 332 AMSTERDAM AVENUE      | 1138 feet to the W   | Closed Status Tank Failure              |
| 21  | EXXONMOBIL                        | 332 AMSTERDAM AVENUE      | 1138 feet to the W   | Closed Status Tank Failure              |
| 53  | EXXON CORP                        | 332 AMSTERDAM AVENUE      | 1138 feet to the W   | Closed Status Tank Test Failure         |
| 121 | 200 WEST 76TH ST                  | 332 AMSTERDAM AVENUE      | 1138 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 22  | 135 CENTRAL PARK W                | 135 CENTRAL PK W          | 1175 feet to the S   | Closed Status Tank Failure              |
| 122 | HERTZ RENT A CAR                  | 210 W. 77TH ST.           | 1176 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 54  | APRT                              | 141 WEST 73RD STREET      | 1182 feet to the SW  | Closed Status Tank Test Failure         |
| 55  | NATIONAL CAR RENTAL SITE          | 219 WEST 77TH STREET      | 1228 feet to the W   | Closed Status Tank Test Failure         |
| 123 | CAR RENTAL                        | 221-223 W77TH ST          | 1228 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 124 | NATIONAL CAR RENTAL               | 219 WEST 77TH STREET      | 1228 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 125 | APARTMENT 1-1                     | 101 WEST 85 STREET        | 1231 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 126 | 101 WEST 85TH STREET              | 101 WEST 85TH STREET      | 1231 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 127 | IN FRONT OF ON WALK               | 157 WEST 73RD ST          | 1232 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 128 | SPILL NUMBER 0209565              | 126 W 73RD ST             | 1258 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 56  | AVIS RENT A CAR                   | 216 W 76TH ST             | 1275 feet to the W   | Closed Status Tank Test Failure         |
| 129 | AVIS RENT A CAR                   | 216 WEST 76TH STREET      | 1275 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 130 | AVIS                              | 216 WEST 76TH ST          | 1275 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 131 | COMMERCIAL BUILDING               | 216 WEST 76TH STREET      | 1275 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 132 | STREET                            | AMSTERDAM AVE AT WEST 74T | 1283 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 23  | OPERA APARTMENTS                  | 2166 BROADWAY             | 1289 feet to the W   | Closed Status Tank Failure              |
| 133 | THE OPERA OWNERS INC              | 2166 BROADWAY             | 1289 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 134 | OPERA APARTMENTS                  | 2166 BROADWAY             | 1289 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 2   | TTF                               | 215 WEST 75TH ST          | 1299 feet to the WSW | Active Tank Test Failure                |
| 24  | 27 WEST 72ND ST/MANH              | 27 WEST 72ND STREET       | 1299 feet to the SSW | Closed Status Tank Failure              |
| 135 | VAULT #V3716                      | 27 WEST 72ND ST           | 1299 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 136 | MANHOLE #59227                    | 215 W.76TH ST             | 1299 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 137 | CENTRLA PARK WEST&85TH ST         | CENTRAL PARK WEST&85TH ST | 1309 feet to the NE  | Closed Status Spill (Unk/Other Cause)   |
| 57  | APT BLD TTF                       | 101 WEST 72ND ST          | 1311 feet to the SW  | Closed Status Tank Test Failure         |
| 138 | COMMERICAL PROPERTY               | 40 WEST 86TH ST           | 1318 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 139 | 28-30 W. 86TH ST.                 | 28-30 W. 86TH ST.         | 1326 feet to the NE  | Closed Status Spill (Unk/Other Cause)   |
| 140 | AVIS RENT A CAR                   | 219 W. 76TH STREET        | 1340 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 141 | 121 WEST 72ND STREET              | 121 W 72ND ST             | 1341 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 25  | 2130 BROADWAY/MANH                | 2130 BROADWAY             | 1343 feet to the WSW | Closed Status Tank Failure              |

|     |                                     |                               |                      |                                         |
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| 142 | MANHOLE 29419                       | CENTRAL PK WEST               | 1356 feet to the S   | Closed Status Spill (Unk/Other Cause)   |
| 143 | 2222 BROADWAY/FILENES BASEMENT      | 2222 BROADWAY                 | 1366 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 144 | 1 W 72ND ST/DAKOTA                  | 1 W 72ND ST/DAKOTA            | 1368 feet to the S   | Closed Status Spill (Unk/Other Cause)   |
| 287 | 10 WEST 86TH ST                     | 10 WEST 86TH ST               | 1376 feet to the NE  | Closed Status Spill (Misc. Spill Cause) |
| 288 | 160 WEST 73RD STREET                | 160 WEST 73RD STREET          | 1406 feet to the SW  | Closed Status Spill (Misc. Spill Cause) |
| 145 | MAN HOLE #27479                     | WEST 78 STREET AND BROADWAY   | 1473 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 146 | WEST 74TH ST/BROADWAY               | WEST 74TH ST/BROADWAY         | 1493 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 289 | WEST 74TH ST/ BRODWAY               | WEST 74TH ST/ BROADWAY        | 1493 feet to the WSW | Closed Status Spill (Misc. Spill Cause) |
| 26  | BANCROFT OWNERS INC                 | 40 W 72ND STREET              | 1507 feet to the SSW | Closed Status Tank Failure              |
| 58  | BASEMENT                            | 12 WEST 72ND ST               | 1555 feet to the SSW | Closed Status Tank Test Failure         |
| 5   | 86 STREET TRANSVERSE DPR –DDC       | 86TH STREET & TRANSVERSE ROAD | 1560 feet to the NE  | Active Haz Spill (Unknown/Other Cause)  |
| 147 | 86 STREET TRANSVERSE DPR –DDC       | 86TH STREET & TRANSVERSE ROAD | 1560 feet to the NE  | Closed Status Spill (Unk/Other Cause)   |
| 148 | SERVICE BOX 13680                   | 241 WEST 76 ST                | 1562 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 149 | APARTMENTS                          | 235 WEST 76TH ST              | 1562 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 150 | CONDO 235 W 75TH ST                 | 235 W.75TH ST                 | 1573 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 151 | 235 W. 75TH ST                      | 235 WEST 75TH ST              | 1573 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 152 | SPILL NUMBER 0301510                | 2159 BROADWAY                 | 1573 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 59  | BELLECLAIRE HOTEL                   | 250 WEST 77TH STREET          | 1577 feet to the W   | Closed Status Tank Test Failure         |
| 60  | BELLECLAIRE HOTEL                   | 250 WEST 77TH ST              | 1577 feet to the W   | Closed Status Tank Test Failure         |
| 153 | APARTMENT COMPLEX                   | 250 W 77TH ST                 | 1577 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 61  | TTF                                 | 233 WEST 77TH STREET          | 1586 feet to the W   | Closed Status Tank Test Failure         |
| 154 | CO-OPERATIVE                        | 212 W.85TH ST                 | 1609 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 155 | SPILL NUMBER 9714534                | 152 WEST 72ND ST – APT 5B     | 1611 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 156 | 148 WEST 72ND ST                    | 148 WEST 72ND ST              | 1611 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 157 | SPILL NUMBER 0006084                | 64 W 87TH ST                  | 1613 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 158 | MANHOLE #27450                      | 73RD ST/BROADWAY              | 1623 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 290 | APARTMENT BUILDING                  | 203 W. 85TH ST.               | 1630 feet to the N   | Closed Status Spill (Misc. Spill Cause) |
| 62  | CONDO 241 W 75TH ST                 | 241 W.75TH ST                 | 1647 feet to the W   | Closed Status Tank Test Failure         |
| 159 | APARTMENT                           | 241 WEST 75TH ST              | 1647 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 160 | 15 GAL ANTIFREEZE IN MANHOLE #12879 | 17 WEST 71 STREET             | 1668 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 161 | SB12896                             | 17 WEST 71 ST                 | 1668 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 6   | BASEMENT                            | 166 W 72ND ST                 | 1693 feet to the SW  | Active Haz Spill (Unknown/Other Cause)  |
| 63  | APARTMENT BUILDING – TTF            | 166 WEST 72ND STREET          | 1693 feet to the SW  | Closed Status Tank Test Failure         |
| 162 | MANHOLE #25950                      | 86TH ST & AMSTERDAM AV        | 1699 feet to the N   | Closed Status Spill (Unk/Other Cause)   |
| 27  | 2109 BROADWAY                       | 2109 BROADWAY                 | 1700 feet to the WSW | Closed Status Tank Failure              |
| 28  | 2109 BROADWAY                       | 2109 BROADWAY                 | 1700 feet to the WSW | Closed Status Tank Failure              |
| 29  | CONDO 245 W.75TH ST                 | 245 W.75TH ST                 | 1705 feet to the W   | Closed Status Tank Failure              |
| 163 | 245 WEST 75TH STREET/ NEW           | 245 WEST 75TH STREET          | 1705 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 164 | APTHORP BUILDING                    | 252 WEST 79TH ST              | 1705 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 165 | DRUM RUN                            | 213 WEST 85TH STREET          | 1731 feet to the N   | Closed Status Spill (Unk/Other Cause)   |
| 166 | SPILL NUMBER 0311725                | 159 WEST 71ST ST/BTWN COL     | 1745 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 167 | SPILL NUMBER 9908618                | 400 WEST END AVE              | 1755 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 30  | SPILL NUMBER 9913986                | 37 WEST 87TH ST               | 1775 feet to the NE  | Closed Status Tank Failure              |
| 168 | SPILL NUMBER 9712910                | WEST 72ND ST & BROADWAY       | 1778 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 169 | APT BLDG                            | 342 WEST END AVE              | 1778 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 170 | CENTRAL PARK/THE LAKE               | 59TH ST/110TH ST              | 1781 feet to the SSE | Closed Status Spill (Unk/Other Cause)   |
| 171 | CENTRAL PARK LAKE                   | WEST 79TH STREET+CENTRAL      | 1781 feet to the SSE | Closed Status Spill (Unk/Other Cause)   |
| 172 | CENTRAL PARK LAKE,WEST              | CENTRAL PARK LAKE,WEST        | 1781 feet to the SSE | Closed Status Spill (Unk/Other Cause)   |
| 291 | CENTRAL PARK LAKE                   | CENTRAL PARK LAKE             | 1781 feet to the SSE | Closed Status Spill (Misc. Spill Cause) |
| 173 | DRUM RUN                            | 119 WEST 87TH STREET          | 1791 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 174 | BUILD ING                           | 23 WEST 87TH STREET           | 1793 feet to the NE  | Closed Status Spill (Unk/Other Cause)   |
| 64  | 176 WEST 87TH STREET                | 176 WEST 87TH STREET          | 1824 feet to the N   | Closed Status Tank Test Failure         |
| 175 | MANHOLE 27538                       | W 85TH ST/BROADWAY            | 1827 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |

|     |                                      |                               |                      |                                         |
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| 176 | 2350 BROADWAY                        | 2350 BROADWAY                 | 1830 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 177 | W79TH ST / WEST END AVE              | W79TH ST / WEST END AVE       | 1851 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 178 | WEST END AV&W 79TH ST                | WEST END AV&W 79TH ST         | 1851 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 179 | MANHOLE 61728                        | WEST END AV/W 77TH ST         | 1851 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 180 | MANHOLE 61728                        | WESTEND AVE/W 77TH ST         | 1851 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 181 | SPILL NUMBER 0011976                 | W 71S ST / CENTRAL PARK W     | 1856 feet to the S   | Closed Status Spill (Unk/Other Cause)   |
| 182 | IN APARTMENT                         | 114 W 88TH ST – APT 1         | 1890 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 183 | 2071 BROADWAY                        | 2071 BROADWAY                 | 1902 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 184 | 101 CENTRAL PARK WEST                | 101 CENTRAL PARK WEST         | 1910 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 185 | 6 BLOCK AREA                         | W 71ST / BROADWAY             | 1915 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 186 | SPILL NUMBER 0209914                 | 425 WEST END AVE              | 1927 feet to the NW  | Closed Status Spill (Unk/Other Cause)   |
| 187 | 355 WEST END AVE                     | 355 WEST END AVE              | 1932 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 188 | 389 WEST END AVENUE                  | 389 WEST END AVENUE           | 1941 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 189 | MANHOLE 62564                        | WEST END AVE / WEST 83RD      | 1946 feet to the NW  | Closed Status Spill (Unk/Other Cause)   |
| 31  | APARTMENTS                           | 441 WEST END AV (80/81)       | 1971 feet to the NW  | Closed Status Tank Failure              |
| 190 | 305 – IN BROOKLYN OR MANHATTAN?      | 305 W 79TH ST                 | 1989 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 191 | APT BLD.                             | 365 WEST END AVE              | 1991 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 65  | TTF – APARTMENT COMPLEX              | 465 WEST END AVENUE           | 2005 feet to the NW  | Closed Status Tank Test Failure         |
| 66  | ABOVE GROUND                         | 473 WEST END AVE              | 2033 feet to the NW  | Closed Status Tank Test Failure         |
| 32  | TZC                                  | 45 WEST 88TH STREET           | 2036 feet to the NE  | Closed Status Tank Failure              |
| 192 | MANHOLE # 49901                      | W 84 ST / WEST END AVE        | 2039 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 292 | FEEDER M51                           | WEST END AVE / 84 STREET      | 2039 feet to the NNW | Closed Status Spill (Misc. Spill Cause) |
| 193 | COMMERCIAL PROPERTY/APT BLDG         | 30 WEST 70TH ST               | 2045 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 67  | RESIDENTS                            | 307 WEST 79 STRET             | 2063 feet to the WNW | Closed Status Tank Test Failure         |
| 194 | MANHOLE TM–1549                      | IFO 154 W70TH ST              | 2067 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 3   | TUZ MANAGMENT                        | 595 COLUMBUS AVE              | 2101 feet to the NNE | Active Tank Test Failure                |
| 195 | VAULT #V1826                         | WEST 72ND STREET              | 2101 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 196 | THE ORMANDE                          | 2030 BROADWAY                 | 2116 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |
| 197 | 319 WEST 77TH STREET.                | 319 WEST 77TH STREET.         | 2121 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 198 | 100 WEST 89TH ST/MANH                | 100 WEST 89TH STREET          | 2129 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 199 | MANHOLE 61729                        | WEST END AV / W 85TH ST       | 2163 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 200 | MAN HOLE #61729                      | WEST END AV & W 85TH ST       | 2163 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 293 | APARTMENT BUILDING                   | 505 WEST END AVE              | 2178 feet to the NNW | Closed Status Spill (Misc. Spill Cause) |
| 201 | 91 CENTRAL PARK WEST                 | 11 WEST 69TH STREET           | 2188 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 202 | 216301; 321 W 82 ST AND RIVERSIDE DR | 321 W 82 ST AND RIVERSIDE DR  | 2191 feet to the NW  | Closed Status Spill (Unk/Other Cause)   |
| 203 | VERIZON MANHOLE                      | WEST 87TH ST & BROADWAY       | 2195 feet to the N   | Closed Status Spill (Unk/Other Cause)   |
| 204 | 98 RIVERSIDE DRIVE                   | 98 RIVERSIDE DRIVE            | 2204 feet to the NW  | Closed Status Spill (Unk/Other Cause)   |
| 294 | STREET                               | WEST 69TH ST/COLUMBUS AV      | 2216 feet to the SSW | Closed Status Spill (Misc. Spill Cause) |
| 205 | CHRISTIAN COMMUNITY                  | 309 W.74TH ST                 | 2239 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 206 | MAN HOLE 61729                       | WEST END AVE AND 85 AND 86 ST | 2242 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 207 | MANHOLE 61729                        | WEST END AV/BET 85 & 86       | 2242 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 33  | 52 RIVERSIDE DRIVE                   | 52 RIVERSIDE DRIVE            | 2291 feet to the WNW | Closed Status Tank Failure              |
| 68  | 52 RIVERSIDE DR                      | 52 RIVERSIDE DR               | 2291 feet to the WNW | Closed Status Tank Test Failure         |
| 69  | RESIDENTS TTF                        | 277 WEST END AVE              | 2299 feet to the WSW | Closed Status Tank Test Failure         |
| 34  | 205 W 88TH ST/MANHATTAN              | 205 WEST 88TH STREET          | 2308 feet to the N   | Closed Status Tank Failure              |
| 208 | SPILL NUMBER 9814552                 | RIVERSIDE DR / W 79TH ST      | 2312 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 209 | 218418; W 86 ST AND WEST END AVE     | W 86 ST AND WEST END AVE      | 2324 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 210 | VAULT 5837                           | WEST 86TH ST AND WEST END AVE | 2324 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 295 | FEEDER M52                           | WEST END AVE / 86TH ST        | 2324 feet to the NNW | Closed Status Spill (Misc. Spill Cause) |
| 211 | 218615; W END AVE AND 72ND ST        | W END AVE AND 72ND ST         | 2326 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 296 | WISE TOWERS                          | 49 WEST 89TH STREET           | 2326 feet to the NNE | Closed Status Spill (Misc. Spill Cause) |
| 212 | COMMERCIAL BUILDING                  | 11 RIVERSIDE DRIVE            | 2329 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 297 | APARTMENT BUILDING                   | 19 WEST 89TH STREET           | 2332 feet to the NE  | Closed Status Spill (Misc. Spill Cause) |

|     |                                  |                           |                      |                                         |
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| 213 | 600 COLUMBUS                     | 600 COLUMBUS AVE.         | 2362 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 298 | TRANSFORMER                      | W 78TH ST & RIVERSIDE DR  | 2367 feet to the WNW | Closed Status Spill (Misc. Spill Cause) |
| 214 | ROADWAY                          | 2 WEST 69TH ST            | 2382 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 215 | RIVERSIDE DR FROM 76TH           | TO 79TH                   | 2389 feet to the WNW | Closed Status Spill (Unk/Other Cause)   |
| 216 | RAFFERTY RES                     | 336 WEST 84TH ST          | 2400 feet to the NW  | Closed Status Spill (Unk/Other Cause)   |
| 217 | SEVEN GALLONS OF HYDRAULIC FLUID | 53 WEST 68 STREET         | 2401 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 218 | IN FRONT 545 WEST END AVE        | FRONT 545 WEST END AVE    | 2405 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 299 | ROADSIDE                         | 2000 BROADWAY             | 2413 feet to the SW  | Closed Status Spill (Misc. Spill Cause) |
| 1   | 267-273 WEST 87TH STREET         | 267-273 WEST 87TH STREET  | 2415 feet to the N   | Brownfields Site                        |
| 219 | PARKING GARAGE                   | 267-273 W87 ST            | 2422 feet to the N   | Closed Status Spill (Unk/Other Cause)   |
| 220 | SPILL NUMBER 9912480             | 10 WEST 90TH ST           | 2433 feet to the NE  | Closed Status Spill (Unk/Other Cause)   |
| 35  | OCONNOR HOME                     | 264 WEST 71 STREET        | 2439 feet to the WSW | Closed Status Tank Failure              |
| 36  | TRANSFORMER VAULT #5535          | 210 W 89TH ST             | 2441 feet to the N   | Closed Status Tank Failure              |
| 37  | APT BUILDING                     | 210 WEST 89TH ST          | 2441 feet to the N   | Closed Status Tank Failure              |
| 221 | 210 WEST 89TH ST VAULT #5535     | 210 WEST 89 TH ST         | 2441 feet to the N   | Closed Status Spill (Unk/Other Cause)   |
| 222 | MANHOLE 5535                     | 210 WEST 89TH ST          | 2441 feet to the N   | Closed Status Spill (Unk/Other Cause)   |
| 38  | SPILL NUMBER 9911904             | 2 WEST 90TH ST            | 2449 feet to the NE  | Closed Status Tank Failure              |
| 223 | SPILL NUMBER 0101768             | 20 RIVERSIDE DR           | 2455 feet to the W   | Closed Status Spill (Unk/Other Cause)   |
| 224 | APARTMENT BUIDLING               | 255 WEST END AVE          | 2475 feet to the WSW | Closed Status Spill (Unk/Other Cause)   |
| 225 | SERVICE BOX #15862               | W. 90TH ST./COLUMBUS AVE. | 2478 feet to the NNE | Closed Status Spill (Unk/Other Cause)   |
| 39  | 240 WEST END AVE                 | 240 WEST END AVE          | 2498 feet to the WSW | Closed Status Tank Failure              |
| 40  | PRIVATE RESIDENCE                | 240 WEST END AVE          | 2498 feet to the WSW | Closed Status Tank Failure              |
| 70  | 310 WEST 86TH ST                 | 310- 320 WEST 86TH STREET | 2506 feet to the NNW | Closed Status Tank Test Failure         |
| 300 | 144 WEST 90TH STREET             | 144 WEST 90TH STREET      | 2508 feet to the NNE | Closed Status Spill (Misc. Spill Cause) |
| 226 | IFO                              | 562 WEST END AV           | 2514 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 227 | 562 WEST END AVE                 | 562 WEST END AVE          | 2514 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 228 | EXCAVATION SITE                  | 562 WESTEND AVE           | 2514 feet to the NNW | Closed Status Spill (Unk/Other Cause)   |
| 229 | AMSTERDAM AV                     | BET W.89TH & W.90TH ST    | 2528 feet to the N   | Closed Status Spill (Unk/Other Cause)   |
| 301 | VAULTS V9112/V9328/V9500/SB12447 | WEST 68TH ST AND BROADWAY | 2532 feet to the SW  | Closed Status Spill (Misc. Spill Cause) |
| 230 | 74 WEST 68 ST                    | 74 W 68TH ST              | 2550 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 231 | SPILL NUMBER 0202046             | 574 WEST END AV           | 2570 feet to the N   | Closed Status Spill (Unk/Other Cause)   |
| 302 | ON SOUTH SIDE OF WEST 68 STREET  | BETWEEN AMSTERDAM AVE AND | 2582 feet to the SW  | Closed Status Spill (Misc. Spill Cause) |
| 232 | IN ROADWAY                       | 20 W. 68TH ST             | 2598 feet to the SSW | Closed Status Spill (Unk/Other Cause)   |
| 41  | 1995 BROADWAY                    | 1995 BROADWAY             | 2625 feet to the SW  | Closed Status Tank Failure              |
| 233 | 1995 BROADWAY                    | 1995 BROADWAY             | 2625 feet to the SW  | Closed Status Spill (Unk/Other Cause)   |

# Report Update Summary

## American Museum of Natural History, New York, NY 10024

### New Sites Identified In This Updated Report

| TT-ID         | MAP-ID | FACILITY ID  | FACILITY STREET                | DATABASE                                              |
|---------------|--------|--------------|--------------------------------|-------------------------------------------------------|
| 320A-0004-384 | 1      | C231096      | 267-273 WEST 87TH STREET       | Brownfield Cleanup Program                            |
| 520A-0308-993 | 260    | 1501064      | 22 WEST 77TH ST                | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0309-017 | 4      | 1502443      | 33 W 74TH ST                   | Active Haz Spills (Unknown Causes or Other Causes)    |
| 520A-0309-046 | 145    | 1500952      | WEST 78 STREET AND BROADWAY    | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0309-050 | 219    | 1500997      | 267-273 W87 ST                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0310-632 | 206    | 1502126      | WEST END AVE AND 85 AND 86 ST  | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0313-198 | 6      | 1506947      | 166 W 72ND ST                  | Active Haz Spills (Unknown Causes or Other Causes)    |
| 520A-0313-273 | 74     | 1510616      | 101 WEST 78TH STREET           | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0313-292 | 123    | 1505465      | 221-223 W77TH ST               | Closed Status Spills (Unknown Causes or Other Causes) |
| 740A-0121-076 | 496    | NYP004657243 | OPP 5 W 82 ST & COLUMBUS AV    | Hazardous Waste Generators, Transporters              |
| 740A-0121-166 | 497    | NYP004667259 | OPP 5 W 82ND ST & COLUMBUS AVE | Hazardous Waste Generators, Transporters              |
| 740A-0136-857 | 375    | NYP004739587 | W 80TH ST & COLUMBUS AVE       | Hazardous Waste Generators, Transporters              |
| 740A-0136-959 | 417    | NYP004762563 | 340 COLUMBUS AVE               | Hazardous Waste Generators, Transporters              |
| 740A-0137-005 | 404    | NYP004771382 | 442 COLUMBUS AVE               | Hazardous Waste Generators, Transporters              |
| 740A-0137-045 | 418    | NYP004776233 | 340 COLUMBUS AVE               | Hazardous Waste Generators, Transporters              |
| 740A-0137-147 | 446    | NYP004789236 | 132 W 81ST ST                  | Hazardous Waste Generators, Transporters              |
| 740A-0137-341 | 401    | NYP004771267 | FO 446 COLUMBUS AVE            | Hazardous Waste Generators, Transporters              |
| 740A-0137-686 | 431    | NYP004776241 | N/W/C 76 ST & COLUMBUS AVE     | Hazardous Waste Generators, Transporters              |
| 740A-0142-422 | 440    | NYP004831182 | 127 W 78TH ST                  | Hazardous Waste Generators, Transporters              |
| 740A-0142-561 | 470    | NYP004842635 | 140 W 80TH ST                  | Hazardous Waste Generators, Transporters              |
| 740A-0142-745 | 471    | NYP004853350 | 140 W 80TH ST                  | Hazardous Waste Generators, Transporters              |
| 740A-0145-078 | 396    | NYP000225490 | 101 W 78TH ST                  | Hazardous Waste Generators, Transporters              |

### Sites With Data Changes Identified In This Updated Report

| TT-ID         | MAP-ID | FACILITY ID | FACILITY STREET               | DATABASE                                              |
|---------------|--------|-------------|-------------------------------|-------------------------------------------------------|
| 520A-0089-860 | 122    | 0706612     | 210 W. 77TH ST.               | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0089-887 | 235    | 0101318     | W. 78TH ST                    | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0089-978 | 279    | 0613236     | WEST 75 STREET & COLUMBUS AVE | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0090-045 | 217    | 0705876     | 53 WEST 68 STREET             | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0090-143 | 146    | 9509545     | WEST 74TH ST/BROADWAY         | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0090-154 | 178    | 9714476     | WEST END AV&W 79TH ST         | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0090-296 | 160    | 0701081     | 17 WEST 71 STREET             | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0090-340 | 95     | 0607638     | 48 WEST 84TH STREET           | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0090-348 | 54     | 0608521     | 141 WEST 73RD STREET          | Closed Status Tank Test Failures                      |
| 520A-0090-375 | 224    | 0610885     | 255 WEST END AVE              | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0090-479 | 9      | 0600431     | 29 WEST 75TH STREET           | Closed Status Tank Failures                           |
| 520A-0090-726 | 90     | 0101436     | CENTRAL PARK W/ W 81ST ST     | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0090-817 | 294    | 0307135     | WEST 69TH ST/COLUMBUS AV      | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0090-836 | 225    | 0405889     | W. 90TH ST./COLUMBUS AVE.     | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-009 | 175    | 9814968     | W 85TH ST/BROADWAY            | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-161 | 190    | 0009084     | 305 W 79TH ST                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-162 | 33     | 0009236     | 52 RIVERSIDE DRIVE            | Closed Status Tank Failures                           |

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| TT-ID         | MAP-ID | FACILITY ID | FACILITY STREET           | DATABASE                                              |
|---------------|--------|-------------|---------------------------|-------------------------------------------------------|
| 520A-0091-204 | 238    | 0013297     | 45 WEST 81ST STREET       | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0091-227 | 103    | 0102621     | 135 WEST 74TH ST          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-250 | 257    | 0104721     | 32 WEST 82ND ST           | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0091-328 | 222    | 0200291     | 210 WEST 89TH ST          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-329 | 246    | 0200505     | 25 W 81ST ST              | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0091-390 | 186    | 0209914     | 425 WEST END AVE          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-401 | 261    | 0211129     | 22 WEST 77TH ST           | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0091-402 | 16     | 0211222     | 10 WEST 74TH ST           | Closed Status Tank Failures                           |
| 520A-0091-473 | 290    | 0310337     | 203 W. 85TH ST.           | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0091-497 | 79     | 0313030     | 31 WEST 76TH STREET       | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-502 | 83     | 0313954     | 120 WEST 76TH ST.         | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-517 | 75     | 0401022     | 35 WEST 81ST ST           | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-518 | 78     | 0401041     | 32 WEST 82ND ST           | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-553 | 213    | 0407891     | 600 COLUMBUS AVE.         | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-578 | 80     | 0411433     | 124 WEST 79TH ST          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-580 | 14     | 0411524     | 15 WEST 84TH STREET       | Closed Status Tank Failures                           |
| 520A-0091-756 | 24     | 9003522     | 27 WEST 72ND STREET       | Closed Status Tank Failures                           |
| 520A-0091-757 | 251    | 9003894     | 108 WEST 80TH STREET      | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0091-846 | 68     | 9106109     | 52 RIVERSIDE DR           | Closed Status Tank Test Failures                      |
| 520A-0091-913 | 300    | 9209074     | 144 WEST 90TH STREET      | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0091-955 | 8      | 9213467     | 123 W. 79TH STREET        | Closed Status Tank Failures                           |
| 520A-0091-987 | 143    | 9306013     | 2222 BROADWAY             | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-011 | 197    | 9310521     | 319 WEST 77TH STREET.     | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-153 | 268    | 9415054     | 35 W. 82ND STREET         | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0092-269 | 164    | 9512657     | 252 WEST 79TH ST          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-296 | 39     | 9515030     | 240 WEST END AVE          | Closed Status Tank Failures                           |
| 520A-0092-320 | 258    | 9600690     | 100 WEST 77TH ST          | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0092-328 | 287    | 9603097     | 10 WEST 86TH ST           | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0092-361 | 239    | 9608499     | 430 COLUMBUS AVE          | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0092-392 | 73     | 9612844     | 51 WEST 81ST ST           | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-394 | 226    | 9612897     | 562 WEST END AV           | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-408 | 266    | 9700916     | 11 WEST 81ST ST           | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0092-536 | 205    | 9808907     | 309 W.74TH ST             | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-557 | 135    | 9811576     | 27 WEST 72ND ST           | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-626 | 42     | 9903694     | 102 WEST 79TH ST          | Closed Status Tank Test Failures                      |
| 520A-0092-639 | 236    | 9906118     | 66 WEST 77TH ST           | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0092-653 | 167    | 9908618     | 400 WEST END AVE          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-908 | 120    | 9513873     | COLUMBUS AVE/EAST 73RD ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-965 | 106    | 9808719     | W 75TH ST & CEN PRK W     | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0093-091 | 91     | 9914163     | W 77TH ST/CENT PARK W     | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0093-113 | 256    | 0401035     | 32 WEST 82ND ST           | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0093-114 | 195    | 0401745     | WEST 72ND STREET          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0093-195 | 272    | 9607793     | 473 COLUMBUS AVE/81 & 82  | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0095-234 | 142    | 0006070     | CENTRAL PK WEST           | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-259 | 41     | 0105791     | 1995 BROADWAY             | Closed Status Tank Failures                           |
| 520A-0095-260 | 233    | 0407958     | 1995 BROADWAY             | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-261 | 299    | 0107530     | 2000 BROADWAY             | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0095-273 | 26     | 0406187     | 40 W 72ND STREET          | Closed Status Tank Failures                           |
| 520A-0095-280 | 194    | 9912234     | IFO 154 W70TH ST          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-283 | 166    | 0311725     | 159 WEST 71ST ST/BTWN COL | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-284 | 155    | 9714534     | 152 WEST 72ND ST - APT 5B | Closed Status Spills (Unknown Causes or Other Causes) |

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| TT-ID         | MAP-ID | FACILITY ID | FACILITY STREET               | DATABASE                                              |
|---------------|--------|-------------|-------------------------------|-------------------------------------------------------|
| 520A-0095-731 | 161    | 0404949     | 17 WEST 71 ST                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-733 | 201    | 0308740     | 11 WEST 69TH STREET           | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-745 | 291    | 9106326     | CENTRAL PARK LAKE             | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0095-746 | 110    | 0009011     | 76TH/AMSTERDAM                | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-747 | 111    | 0009010     | 76TH ST/AMSTERDAM             | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-748 | 35     | 0510860     | 264 WEST 71 STREET            | Closed Status Tank Failures                           |
| 520A-0095-752 | 11     | 9700866     | 100 WEST 75TH STREET          | Closed Status Tank Failures                           |
| 520A-0095-753 | 10     | 9700871     | 102 WEST 75TH ST              | Closed Status Tank Failures                           |
| 520A-0095-754 | 27     | 9802677     | 2109 BROADWAY                 | Closed Status Tank Failures                           |
| 520A-0095-756 | 28     | 9209388     | 2109 BROADWAY                 | Closed Status Tank Failures                           |
| 520A-0095-757 | 7      | 0106772     | 53 W 76TH ST                  | Closed Status Tank Failures                           |
| 520A-0095-758 | 153    | 0210091     | 250 W 77TH ST                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-762 | 82     | 0511030     | 118 W. 76TH ST.               | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-763 | 140    | 9714319     | 219 W. 76TH STREET            | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-766 | 169    | 0511868     | 342 WEST END AVE              | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-768 | 283    | 9511197     | 54 WEST 74TH STREET           | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0095-769 | 282    | 9511281     | 54 WEST 74TH ST               | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0096-489 | 5      | 9502313     | 86TH STREET & TRANSVERSE ROAD | Active Haz Spills (Unknown Causes or Other Causes)    |
| 520A-0097-030 | 88     | 9704989     | 81ST ST & CENTRAL PK WEST     | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-034 | 274    | 9906089     | 211 CENTRAL PARK WEST         | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0097-224 | 232    | 0308676     | 20 W. 68TH ST                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-570 | 105    | 0604606     | 36 WEST 74TH ST.              | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-807 | 128    | 0209565     | 126 W 73RD ST                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-812 | 288    | 9307715     | 160 WEST 73RD STREET          | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0097-822 | 183    | 9712912     | 2071 BROADWAY                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-823 | 141    | 9906352     | 121 W 72ND ST                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-825 | 177    | 9808972     | W79TH ST / WEST END AVE       | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-826 | 60     | 0509393     | 250 WEST 77TH ST              | Closed Status Tank Test Failures                      |
| 520A-0097-828 | 150    | 9108106     | 235 W.75TH ST                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-829 | 151    | 0308109     | 235 WEST 75TH ST              | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-830 | 223    | 0101768     | 20 RIVERSIDE DR               | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-831 | 252    | 9511954     | 101 WEST 81ST ST              | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0097-832 | 77     | 9614218     | 101 WEST 81ST ST APT 103      | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-833 | 255    | 0514785     | 446 COLUMBUS AV               | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0097-834 | 96     | 0203985     | 171 W. 81TH ST                | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-844 | 234    | 0505106     | COLUMBUS AV AT W 79 ST        | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0098-009 | 182    | 9710729     | 114 W 88TH ST - APT 1         | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-010 | 218    | 0000802     | FRONT 545 WEST END AVE        | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-432 | 292    | 0514145     | WEST END AVE / 84 STREET      | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0098-433 | 192    | 0411668     | W 84 ST / WEST END AVE        | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-708 | 55     | 0310460     | 219 WEST 77TH STREET          | Closed Status Tank Test Failures                      |
| 520A-0098-711 | 134    | 0008420     | 2166 BROADWAY                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-713 | 121    | 0102998     | 332 AMSTERDAM AVENUE          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-714 | 87     | 0107348     | 160 WEST 78TH ST              | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-715 | 56     | 0202743     | 216 W 76TH ST                 | Closed Status Tank Test Failures                      |
| 520A-0098-717 | 163    | 8702852     | 245 WEST 75TH STREET          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-721 | 25     | 9009255     | 2130 BROADWAY                 | Closed Status Tank Failures                           |
| 520A-0098-722 | 23     | 9009666     | 2166 BROADWAY                 | Closed Status Tank Failures                           |
| 520A-0098-724 | 62     | 9108242     | 241 W.75TH ST                 | Closed Status Tank Test Failures                      |
| 520A-0098-725 | 15     | 9206055     | 201 WEST 77TH STREET          | Closed Status Tank Failures                           |
| 520A-0098-732 | 129    | 9512434     | 216 WEST 76TH STREET          | Closed Status Spills (Unknown Causes or Other Causes) |

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| TT-ID         | MAP-ID | FACILITY ID | FACILITY STREET               | DATABASE                                              |
|---------------|--------|-------------|-------------------------------|-------------------------------------------------------|
| 520A-0098-735 | 133    | 9708318     | 2166 BROADWAY                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-737 | 20     | 9904995     | 332 AMSTERDAM AVENUE          | Closed Status Tank Failures                           |
| 520A-0098-740 | 136    | 9910860     | 215 W.76TH ST                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-741 | 159    | 0514747     | 241 WEST 75TH ST              | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-743 | 59     | 0603441     | 250 WEST 77TH STREET          | Closed Status Tank Test Failures                      |
| 520A-0098-744 | 52     | 0210864     | 145 WEST 84TH STREET          | Closed Status Tank Test Failures                      |
| 520A-0098-746 | 86     | 0011330     | 144 WEST 82ND ST              | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-747 | 12     | 0409941     | 150 WEST 82ND STREET          | Closed Status Tank Failures                           |
| 520A-0098-751 | 116    | 9712452     | 52 W. 85TH ST APT 1R          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-752 | 97     | 0611800     | 150 WEST 83RD STREET          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-756 | 46     | 0408295     | 150 WEST 82ND ST              | Closed Status Tank Test Failures                      |
| 520A-0098-761 | 45     | 9512346     | 120 WEST 82ND STREET          | Closed Status Tank Test Failures                      |
| 520A-0098-763 | 44     | 9614401     | 120 WEST 82ND STREET          | Closed Status Tank Test Failures                      |
| 520A-0098-764 | 47     | 9906666     | 146 WEST 83RD ST              | Closed Status Tank Test Failures                      |
| 520A-0098-766 | 285    | 9606147     | IFO 453 AMSTERDAM AVE         | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0098-767 | 147    | 9600735     | 86TH STREET & TRANSVERSE ROAD | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-769 | 174    | 0507825     | 23 WEST 87TH STREET           | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-775 | 297    | 0310328     | 19 WEST 89TH STREET           | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0098-776 | 32     | 0501353     | 45 WEST 88TH STREET           | Closed Status Tank Failures                           |
| 520A-0098-785 | 38     | 9911904     | 2 WEST 90TH ST                | Closed Status Tank Failures                           |
| 520A-0098-786 | 220    | 9912480     | 10 WEST 90TH ST               | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-787 | 30     | 9913986     | 37 WEST 87TH ST               | Closed Status Tank Failures                           |
| 520A-0101-135 | 64     | 0611481     | 176 WEST 87TH STREET          | Closed Status Tank Test Failures                      |
| 520A-0101-138 | 37     | 9810768     | 210 WEST 89TH ST              | Closed Status Tank Failures                           |
| 520A-0101-157 | 231    | 0202046     | 574 WEST END AV               | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-158 | 198    | 9004060     | 100 WEST 89TH STREET          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-333 | 31     | 9708740     | 441 WEST END AV \ (80/81)     | Closed Status Tank Failures                           |
| 520A-0101-335 | 204    | 9815515     | 98 RIVERSIDE DRIVE            | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-339 | 293    | 0604433     | 505 WEST END AVE              | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0101-343 | 70     | 0701980     | 310- 320 WEST 86TH STREET     | Closed Status Tank Test Failures                      |
| 520A-0101-345 | 216    | 0109869     | 336 WEST 84TH ST              | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-347 | 162    | 0207710     | 86TH ST & AMSTERDAM AV        | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-349 | 124    | 0312284     | 219 WEST 77TH STREET          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-350 | 176    | 9814099     | 2350 BROADWAY                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-351 | 118    | 9706531     | 200 W. 82ND ST                | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-352 | 108    | 0112175     | 475 AMSTERDAM AVE             | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-353 | 188    | 0306271     | 389 WEST END AVENUE           | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-369 | 130    | 9512234     | 216 WEST 76TH ST              | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-370 | 152    | 0301510     | 2159 BROADWAY                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-371 | 270    | 0010667     | 469 COLUMBUS AVE              | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0101-956 | 170    | 9913687     | 59TH ST/110TH ST              | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-960 | 158    | 0002592     | 73RD ST/BROADWAY              | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-961 | 168    | 9712910     | WEST 72ND ST & BROADWAY       | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-191 | 179    | 0303245     | WEST END AV/W 77TH ST         | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-192 | 180    | 0103043     | WESTEND AVE/W 77TH ST         | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-194 | 215    | 0011833     | TO 79TH                       | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-211 | 295    | 9812964     | WEST END AVE / 86TH ST        | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0102-212 | 207    | 0007959     | WEST END AV/BET 85 & 86       | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-286 | 189    | 9902131     | WEST END AVE / WEST 83RD      | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-512 | 200    | 9811082     | WEST END AV & W 85TH ST       | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-513 | 199    | 9912170     | WEST END AV / W 85TH ST       | Closed Status Spills (Unknown Causes or Other Causes) |

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| TT-ID         | MAP-ID | FACILITY ID | FACILITY STREET                  | DATABASE                                              |
|---------------|--------|-------------|----------------------------------|-------------------------------------------------------|
| 520A-0211-096 | 173    | 0707272     | 119 WEST 87TH STREET             | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0211-104 | 212    | 0707548     | 11 RIVERSIDE DRIVE               | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0214-772 | 131    | 0711724     | 216 WEST 76TH STREET             | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0214-810 | 115    | 0713512     | 67 WEST 73RD ST                  | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0220-200 | 72     | 0890009     | NE W 77 ST COLUMBUS AV           | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0220-591 | 156    | 0807618     | 148 WEST 72ND ST                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0220-617 | 3      | 0808308     | 595 COLUMBUS AVE                 | Active Tank Test Failures                             |
| 520A-0222-354 | 221    | 0806603     | 210 WEST 89 TH ST                | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0225-185 | 203    | 0809964     | WEST 87TH ST & BROADWAY          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0226-355 | 214    | 0811781     | 2 WEST 69TH ST                   | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0226-357 | 149    | 0811809     | 235 WEST 76TH ST                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0226-422 | 43     | 0900502     | 74 WEST 82ND ST                  | Closed Status Tank Test Failures                      |
| 520A-0229-407 | 49     | 0902145     | 150 WEST 84TH ST                 | Closed Status Tank Test Failures                      |
| 520A-0229-475 | 148    | 0903063     | 241 WEST 76 ST                   | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0232-118 | 193    | 0906140     | 30 WEST 70TH ST                  | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0233-973 | 262    | 0909623     | 15 WEST 81ST ST                  | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0248-446 | 112    | 0814637     | 141-150 CENTRAL PARK WEST        | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0248-463 | 113    | 0914003     | 424-246 AMSTERDAM AVENUE         | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0248-556 | 127    | 0913358     | 157 WEST 73RD ST                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0248-722 | 209    | 0914466     | W 86 ST AND WEST END AVE         | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0248-768 | 98     | 0914061     | 136 W 75 STREET                  | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0248-777 | 202    | 0914135     | 321 W 82 ST AND RIVERSIDE DR     | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0249-518 | 107    | 0814608     | WEST 75 ST AND CENTRAL PARK WEST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0249-519 | 211    | 0914501     | W END AVE AND 72ND ST            | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0253-025 | 57     | 1003932     | 101 WEST 72ND ST                 | Closed Status Tank Test Failures                      |
| 520A-0253-034 | 271    | 1004259     | 135 WEST 79TH ST                 | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0255-645 | 265    | 1007020     | 127 WEST 79 ST                   | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0263-404 | 302    | 1102131     | BETWEEN AMSTERDAM AVE AND        | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0271-497 | 50     | 1114440     | 200 W. 78TH ST                   | Closed Status Tank Test Failures                      |
| 520A-0278-032 | 196    | 1206031     | 2030 BROADWAY                    | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0278-043 | 66     | 1206692     | 473 WEST END AVE                 | Closed Status Tank Test Failures                      |
| 520A-0280-960 | 269    | 1214810     | 131 WEST 78TH ST                 | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0286-950 | 48     | 1216531     | 172 WEST 79TH                    | Closed Status Tank Test Failures                      |
| 520A-0288-326 | 273    | 0105883     | CENTRAL PARK                     | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0289-137 | 61     | 1305857     | 233 WEST 77TH STREET             | Closed Status Tank Test Failures                      |
| 520A-0293-318 | 101    | 1306921     | 175 WEST 76TH ST                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0293-325 | 191    | 1307187     | 365 WEST END AVE                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0293-430 | 249    | 1308427     | 74 WEST 82 ST                    | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0297-240 | 244    | 1310806     | 35 WEST 81ST ST                  | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0297-283 | 58     | 1312078     | 12 WEST 72ND ST                  | Closed Status Tank Test Failures                      |
| 520A-0297-775 | 109    | 1400018     | 82ND AND AMSTERDAM               | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0298-360 | 281    | 1402418     | 175 W 76TH ST                    | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0300-649 | 65     | 1403318     | 465 WEST END AVENUE              | Closed Status Tank Test Failures                      |
| 520A-0300-653 | 69     | 1403485     | 277 WEST END AVE                 | Closed Status Tank Test Failures                      |
| 520A-0300-680 | 227    | 1405674     | 562 WEST END AVE                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0300-704 | 284    | 1407071     | 54 WEST 74TH STREET              | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0302-180 | 228    | 1405504     | 562 WESTEND AVE                  | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0303-446 | 2      | 1409035     | 215 WEST 75TH ST                 | Active Tank Test Failures                             |
| 520A-0305-036 | 67     | 1407368     | 307 WEST 79 STRET                | Closed Status Tank Test Failures                      |
| 520A-1000-803 | 63     | 1215632     | 166 WEST 72ND STREET             | Closed Status Tank Test Failures                      |
| 640A-0030-235 | 342    | 2-043877    | 35 WEST 82ND STREET              | Petroleum Bulk Storage Sites                          |

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| TT-ID         | MAP-ID | FACILITY ID  | FACILITY STREET        | DATABASE                                 |
|---------------|--------|--------------|------------------------|------------------------------------------|
| 640A-0030-256 | 360    | 2-055549     | 147 WEST 79TH STREET   | Petroleum Bulk Storage Sites             |
| 640A-0031-221 | 351    | 2-306142     | 140 W 79TH ST          | Petroleum Bulk Storage Sites             |
| 640A-0031-601 | 305    | 2-453811     | 100 WEST 80TH STREET   | Petroleum Bulk Storage Sites             |
| 740A-0031-849 | 390    | NYD061202768 | 79TH STREET & COLUMBIA | Hazardous Waste Generators, Transporters |
| 740A-0130-693 | 450    | NYP004756003 | 29 W 82ND ST           | Hazardous Waste Generators, Transporters |

### Sites With No Data Or Location Changes Identified In This Updated Report

| TT-ID         | MAP-ID | FACILITY ID | FACILITY STREET           | DATABASE                                              |
|---------------|--------|-------------|---------------------------|-------------------------------------------------------|
| 520A-0089-877 | 277    | 9711001     | 34-36 WEST 83RD ST        | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0090-007 | 89     | 9105945     | 79TH ST TRANSVERSE        | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0090-930 | 289    | 9509544     | WEST 74TH ST/ BROADWAY    | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0091-138 | 157    | 0006084     | 64 W 87TH ST              | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-585 | 40     | 0412040     | 240 WEST END AVE          | Closed Status Tank Failures                           |
| 520A-0091-714 | 85     | 8903584     | 7 WEST 82ND STREET        | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-721 | 76     | 8905449     | 118 WEST 79TH STREET      | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0091-740 | 280    | 8911278     | 27 W 74TH STREET          | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0091-746 | 247    | 9000007     | 64 WEST 82ND STREET       | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0091-748 | 17     | 9000527     | 24 WEST 85TH STREET       | Closed Status Tank Failures                           |
| 520A-0091-777 | 34     | 9007713     | 205 WEST 88TH STREET      | Closed Status Tank Failures                           |
| 520A-0091-998 | 250    | 9308078     | 57 W. 76TH STREET         | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0092-002 | 264    | 9308723     | 129 WEST 77TH STREET      | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0092-144 | 248    | 9414562     | 55 WEST 76TH STREET       | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0092-275 | 187    | 9513285     | 355 WEST END AVE          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-279 | 99     | 9513823     | 140 W 75TH ST             | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-355 | 240    | 9607683     | 430 COLUMBUS AVE          | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0092-418 | 263    | 9702507     | 60 WEST 76TH ST           | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0092-504 | 242    | 9802892     | 101 W 78TH ST             | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0092-505 | 241    | 9802899     | 101 WEST 78TH ST          | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0092-571 | 36     | 9812557     | 210 W 89TH ST             | Closed Status Tank Failures                           |
| 520A-0092-675 | 154    | 9910368     | 212 W.85TH ST             | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0092-899 | 259    | 9509190     | COLUMBUS AVE & 76TH ST    | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0093-132 | 278    | 8903548     | 7,9,11 WEST 82ND STREET   | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0095-235 | 181    | 0011976     | W 71S ST / CENTRAL PARK W | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-279 | 184    | 9002095     | 101 CENTRAL PARK WEST     | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-281 | 144    | 9112772     | 1 W 72ND ST/DAKOTA        | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-743 | 230    | 8906472     | 74 W 68TH ST              | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0095-751 | 22     | 9106670     | 135 CENTRAL PK W          | Closed Status Tank Failures                           |
| 520A-0095-764 | 119    | 9808769     | 348-354 AMSTERDAM AVE     | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-031 | 137    | 9000590     | CENTRAL PARK WEST&85TH ST | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-032 | 84     | 0011975     | 211 CENTRAL PARK WEST     | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0097-033 | 275    | 9010890     | 211 CENTRAL PARK WEST     | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0097-395 | 254    | 0602795     | 101 WEST 81ST STREET      | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0097-842 | 286    | 9011809     | 200 WEST 79TH STREET      | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0098-129 | 132    | 0608530     | AMSTERDAM AVE AT WEST 74T | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-719 | 93     | 9002134     | 163 WEST 76TH STREET      | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-723 | 29     | 9108119     | 245 W.75TH ST             | Closed Status Tank Failures                           |
| 520A-0098-731 | 53     | 9413181     | 332 AMSTERDAM AVENUE      | Closed Status Tank Test Failures                      |
| 520A-0098-736 | 21     | 9904938     | 332 AMSTERDAM AVENUE      | Closed Status Tank Failures                           |
| 520A-0098-738 | 19     | 9904998     | 332 AMSTERDAM AVENUE      | Closed Status Tank Failures                           |

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| TT-ID         | MAP-ID | FACILITY ID | FACILITY STREET               | DATABASE                                              |
|---------------|--------|-------------|-------------------------------|-------------------------------------------------------|
| 520A-0098-739 | 18     | 9905193     | 332 AMSTERDAM AVENUE          | Closed Status Tank Failures                           |
| 520A-0098-749 | 125    | 0607065     | 101 WEST 85 STREET            | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-750 | 126    | 0606644     | 101 WEST 85TH STREET          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-757 | 245    | 9007523     | 106 WEST 81ST STREET          | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0098-758 | 13     | 9011428     | 139 WEST 82ND STREET          | Closed Status Tank Failures                           |
| 520A-0098-768 | 139    | 9214506     | 28-30 W. 86TH ST.             | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0098-783 | 296    | 9416405     | 49 WEST 89TH STREET           | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0101-348 | 104    | 9910327     | AMSTERDAM AV & 80TH ST        | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-368 | 81     | 9512927     | 120 WEST 82ND STREET          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-888 | 185    | 0503314     | W 71ST / BROADWAY             | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-954 | 172    | 9106422     | CENTRAL PARK LAKE, WEST       | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0101-955 | 171    | 9912733     | WEST 79TH STREET+CENTRAL      | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-143 | 100    | 8907311     | W 83RD ST& CENT PARK WEST     | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-208 | 229    | 9612167     | BET W.89TH & W.90TH ST        | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0102-280 | 208    | 9814552     | RIVERSIDE DR / W 79TH ST      | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0211-099 | 165    | 0707307     | 213 WEST 85TH STREET          | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0211-130 | 114    | 0708720     | 424 AMSTERDAM AVE             | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0211-139 | 92     | 0708989     | 148 W 76TH ST                 | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0214-961 | 102    | 0801224     | 52 WEST 74TH STREET           | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0220-540 | 243    | 0805295     | 44 WEST 77TH ST               | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0220-645 | 94     | 0805106     | 55 W 74TH ST                  | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0226-327 | 276    | 0812909     | 211 CENTRAL PARK WEST         | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0229-392 | 71     | 0904587     | W. 79TH ST. & COLUMBUS AVE.   | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0232-097 | 210    | 0906576     | WEST 86TH ST AND WEST END AVE | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0233-932 | 117    | 0908602     | 200 WEST 79TH ST              | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0248-490 | 253    | 1000110     | 101 WEST 81ST STREET          | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0263-299 | 301    | 1102137     | WEST 68TH ST AND BROADWAY     | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0265-914 | 51     | 1104682     | 202 WEST 78TH ST              | Closed Status Tank Test Failures                      |
| 520A-0265-916 | 138    | 1104766     | 40 WEST 86TH ST               | Closed Status Spills (Unknown Causes or Other Causes) |
| 520A-0269-294 | 237    | 1111702     | 45 WEST 81 ST                 | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0275-647 | 267    | 1203278     | 11 W.81ST STREET              | Closed Status Spills (Miscellaneous Spill Causes)     |
| 520A-0279-316 | 298    | 1205821     | W 78TH ST & RIVERSIDE DR      | Closed Status Spills (Miscellaneous Spill Causes)     |
| 640A-0029-608 | 359    | 2-113654    | 211 CENTRAL PARK WEST         | Petroleum Bulk Storage Sites                          |
| 640A-0029-654 | 313    | 2-272779    | 101 WEST 79TH STREET          | Petroleum Bulk Storage Sites                          |
| 640A-0029-747 | 317    | 2-610232    | 105 WEST 77TH STREET          | Petroleum Bulk Storage Sites                          |
| 640A-0029-851 | 306    | 2-605641    | 50-52 WEST 77TH STREET        | Petroleum Bulk Storage Sites                          |
| 640A-0029-906 | 322    | 2-316377    | 59 WEST 76TH STREET           | Petroleum Bulk Storage Sites                          |
| 640A-0030-020 | 352    | 2-608998    | 120 WEST 76TH STREET          | Petroleum Bulk Storage Sites                          |
| 640A-0030-288 | 318    | 2-063673    | 35 WEST 81ST ST               | Petroleum Bulk Storage Sites                          |
| 640A-0030-294 | 346    | 2-064696    | 6 WEST 77TH ST                | Petroleum Bulk Storage Sites                          |
| 640A-0030-295 | 337    | 2-064726    | 20 WEST 77TH STREET           | Petroleum Bulk Storage Sites                          |
| 640A-0030-404 | 312    | 2-098094    | 370 COLUMBUS AVE              | Petroleum Bulk Storage Sites                          |
| 640A-0030-438 | 321    | 2-108332    | 117 WEST 79TH ST              | Petroleum Bulk Storage Sites                          |
| 640A-0030-529 | 340    | 2-147311    | 11 WEST 81ST STREET           | Petroleum Bulk Storage Sites                          |
| 640A-0030-815 | 334    | 2-233471    | 15 W 81ST ST                  | Petroleum Bulk Storage Sites                          |
| 640A-0030-871 | 315    | 2-243531    | 51 WEST 81ST ST               | Petroleum Bulk Storage Sites                          |
| 640A-0030-878 | 336    | 2-244600    | 127 WEST 79TH STREET          | Petroleum Bulk Storage Sites                          |
| 640A-0031-026 | 310    | 2-271284    | 101 W. 78TH ST                | Petroleum Bulk Storage Sites                          |
| 640A-0031-041 | 331    | 2-272930    | 124 WEST 79TH STREET          | Petroleum Bulk Storage Sites                          |
| 640A-0031-100 | 366    | 2-281808    | 150 WEST 79TH STREET          | Petroleum Bulk Storage Sites                          |
| 640A-0031-142 | 339    | 2-286192    | 100 WEST 76TH STREET          | Petroleum Bulk Storage Sites                          |

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| TT-ID         | MAP-ID | FACILITY ID  | FACILITY STREET          | DATABASE                                 |
|---------------|--------|--------------|--------------------------|------------------------------------------|
| 640A-0031-211 | 345    | 2-297852     | 57 WEST 75TH ST          | Petroleum Bulk Storage Sites             |
| 640A-0031-233 | 341    | 2-311502     | 41 WEST 82ND STREET      | Petroleum Bulk Storage Sites             |
| 640A-0031-251 | 335    | 2-315842     | 60 WEST 76TH STREET      | Petroleum Bulk Storage Sites             |
| 640A-0031-344 | 344    | 2-332240     | 135 WEST 79TH STREET     | Petroleum Bulk Storage Sites             |
| 640A-0031-377 | 319    | 2-338796     | 102 WEST 80TH ST         | Petroleum Bulk Storage Sites             |
| 640A-0031-430 | 329    | 2-353876     | 100 WEST 77TH STREET     | Petroleum Bulk Storage Sites             |
| 640A-0031-451 | 324    | 2-360066     | 25 WEST 81ST STREET      | Petroleum Bulk Storage Sites             |
| 640A-0031-588 | 332    | 2-420999     | 22 WEST 77TH STREET      | Petroleum Bulk Storage Sites             |
| 640A-0031-759 | 354    | 2-600842     | 145 W. 79TH STREET       | Petroleum Bulk Storage Sites             |
| 640A-0032-083 | 308    | 2-606646     | 101 WEST 80TH STREET     | Petroleum Bulk Storage Sites             |
| 640A-0032-139 | 349    | 2-607024     | 471 COLUMBUS AVENUE      | Petroleum Bulk Storage Sites             |
| 640A-0032-219 | 326    | 2-112283     | 40 WEST 77 ST            | Petroleum Bulk Storage Sites             |
| 640A-0032-236 | 343    | 2-129992     | 125 WEST 76TH STREET     | Petroleum Bulk Storage Sites             |
| 640A-0032-245 | 369    | 2-147370     | 151 WEST 78TH STREET     | Petroleum Bulk Storage Sites             |
| 640A-0032-247 | 307    | 2-148075     | 66 WEST 77TH STREET      | Petroleum Bulk Storage Sites             |
| 640A-0032-304 | 311    | 2-210870     | 102 WEST 79 STREET       | Petroleum Bulk Storage Sites             |
| 640A-0032-314 | 356    | 2-214507     | 146 WEST 79TH STREET     | Petroleum Bulk Storage Sites             |
| 640A-0032-334 | 323    | 2-236756     | 118 WEST 79TH STREET     | Petroleum Bulk Storage Sites             |
| 640A-0032-350 | 316    | 2-245224     | 44 WEST 77TH STREET      | Petroleum Bulk Storage Sites             |
| 640A-0032-384 | 373    | 2-265926     | 60 W 75 STREET           | Petroleum Bulk Storage Sites             |
| 640A-0032-386 | 330    | 2-266590     | 32 WEST 82ND STREET      | Petroleum Bulk Storage Sites             |
| 640A-0032-465 | 355    | 2-311871     | 46 W 83 STREET           | Petroleum Bulk Storage Sites             |
| 640A-0032-693 | 357    | 2-606629     | 101 WEST 75 ST.          | Petroleum Bulk Storage Sites             |
| 640A-0032-704 | 314    | 2-607150     | 45 WEST 81 STREET        | Petroleum Bulk Storage Sites             |
| 640A-0038-724 | 364    | 2-607938     | 14-16 WEST 76TH STREET   | Petroleum Bulk Storage Sites             |
| 640A-0039-392 | 370    | 2-353477     | 160 WEST 78TH STREET     | Petroleum Bulk Storage Sites             |
| 640A-0039-407 | 368    | 2-602707     | 127 WEST 82ND STREET     | Petroleum Bulk Storage Sites             |
| 640A-0039-408 | 367    | 2-309133     | 127 W 82 ST              | Petroleum Bulk Storage Sites             |
| 640A-0039-409 | 347    | 2-603532     | 107-111 WEST 82ND STREET | Petroleum Bulk Storage Sites             |
| 640A-0039-410 | 327    | 2-211583     | 440 COLUMBUS AVENUE      | Petroleum Bulk Storage Sites             |
| 640A-0039-411 | 328    | 2-249092     | 101 WEST 81ST STREET     | Petroleum Bulk Storage Sites             |
| 640A-0039-412 | 362    | 2-358495     | 155 WEST 81 STREET       | Petroleum Bulk Storage Sites             |
| 640A-0039-415 | 363    | 2-200905     | 158 WEST 81ST STREET     | Petroleum Bulk Storage Sites             |
| 640A-0039-437 | 361    | 2-357898     | 120 WEST 83RD STREET     | Petroleum Bulk Storage Sites             |
| 640A-0039-447 | 371    | 2-198404     | 146 WEST 82ND STREET     | Petroleum Bulk Storage Sites             |
| 640A-0039-448 | 338    | 2-217484     | 120 WEST 82ND STREET     | Petroleum Bulk Storage Sites             |
| 640A-0086-712 | 303    | 2-611190     | 200 CENTRAL PARK WEST    | Petroleum Bulk Storage Sites             |
| 640A-0089-573 | 325    | 2-611976     | 80 WEST 82ND ST          | Petroleum Bulk Storage Sites             |
| 660A-0005-119 | 304    | NY01442      | 179 CENTRAL PARK W       | Petroleum Bulk Storage Sites             |
| 660A-0005-553 | 350    | NY07044      | 471 COLUMBUS AVE         | Petroleum Bulk Storage Sites             |
| 660A-0005-730 | 348    | NY00056      | 109 W 82 ST              | Petroleum Bulk Storage Sites             |
| 660A-0005-795 | 309    | NY00039      | 101 W 80 ST              | Petroleum Bulk Storage Sites             |
| 660A-0005-959 | 372    | NY00755      | 73 W 83 ST               | Petroleum Bulk Storage Sites             |
| 660A-0006-052 | 333    | NY01319      | 73 W 82 ST               | Petroleum Bulk Storage Sites             |
| 660A-0006-156 | 365    | NY02492      | 14 W 76 ST               | Petroleum Bulk Storage Sites             |
| 660A-0006-496 | 358    | NY05520      | 101 W 75 ST              | Petroleum Bulk Storage Sites             |
| 660A-0007-006 | 353    | NY10324      | 120 W 76 ST              | Petroleum Bulk Storage Sites             |
| 660A-0007-854 | 320    | NY10312      | 103 W 80 ST              | Petroleum Bulk Storage Sites             |
| 740A-0024-497 | 475    | NYP000927871 | 211 CENTRAL PARK WEST    | Hazardous Waste Generators, Transporters |
| 740A-0024-511 | 460    | NYR000066894 | 6-16 W 77TH ST           | Hazardous Waste Generators, Transporters |
| 740A-0024-600 | 477    | NYP004057626 | V8223-211 CENTRAL PARK W | Hazardous Waste Generators, Transporters |

Continued from previous page

| TT-ID         | MAP-ID | FACILITY ID  | FACILITY STREET                    | DATABASE                                 |
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| 740A-0024-674 | 392    | NYP004084364 | V0062 - 41-49 W 81ST               | Hazardous Waste Generators, Transporters |
| 740A-0024-747 | 394    | NYD006545883 | 445 COLUMBUS AVE                   | Hazardous Waste Generators, Transporters |
| 740A-0024-803 | 395    | NYD981083835 | 445 COLUMBUS AVENUE                | Hazardous Waste Generators, Transporters |
| 740A-0026-228 | 407    | NYD987038908 | 25 WEST 81 STREET                  | Hazardous Waste Generators, Transporters |
| 740A-0026-445 | 391    | NYP000782847 | CENTRAL PARK W & 79TH ST           | Hazardous Waste Generators, Transporters |
| 740A-0026-576 | 476    | NYP004041976 | V8223-CENTRAL PARK WEST            | Hazardous Waste Generators, Transporters |
| 740A-0029-220 | 426    | NYP004124798 | 76 ST & COLUMBUS AVE V6001         | Hazardous Waste Generators, Transporters |
| 740A-0031-157 | 491    | NYR000009456 | 160 WEST 78TH STREET               | Hazardous Waste Generators, Transporters |
| 740A-0065-096 | 468    | NYP004161949 | 78TH & 8TH AVE                     | Hazardous Waste Generators, Transporters |
| 740A-0066-409 | 385    | NYP004177564 | W 77TH ST & COLUMBUS AVE           | Hazardous Waste Generators, Transporters |
| 740A-0066-520 | 414    | NYP004165833 | 115 W 77TH ST                      | Hazardous Waste Generators, Transporters |
| 740A-0066-551 | 469    | NYP004166534 | 41 W 75TH ST                       | Hazardous Waste Generators, Transporters |
| 740A-0066-937 | 467    | NYP004188868 | 43 WEST 75TH ST                    | Hazardous Waste Generators, Transporters |
| 740A-0066-954 | 486    | NYP004191227 | W 75TH STREET AND COLUMBUS AVE     | Hazardous Waste Generators, Transporters |
| 740A-0067-120 | 455    | NYP004187662 | W 78 ST BETW COLUMBUS/AMSTERDAM    | Hazardous Waste Generators, Transporters |
| 740A-0067-134 | 374    | NYP004188918 | WEST 80 ST & COLUMBUS AVE          | Hazardous Waste Generators, Transporters |
| 740A-0067-359 | 452    | NYP004177572 | 135 W. 78 ST                       | Hazardous Waste Generators, Transporters |
| 740A-0067-362 | 405    | NYP004177630 | 104 WEST 80 STREET                 | Hazardous Waste Generators, Transporters |
| 740A-0067-363 | 434    | NYP004177648 | 122 WEST 81 STREET                 | Hazardous Waste Generators, Transporters |
| 740A-0067-364 | 490    | NYP004177655 | 146 WEST 80 STREET                 | Hazardous Waste Generators, Transporters |
| 740A-0067-372 | 436    | NYP004177796 | 101 W 82 STREET AND COLUMBUS A     | Hazardous Waste Generators, Transporters |
| 740A-0067-375 | 456    | NYP004177911 | 23 W 82 ST                         | Hazardous Waste Generators, Transporters |
| 740A-0067-461 | 500    | NYP004187613 | FRONT OF 104 WEST 75 STREET        | Hazardous Waste Generators, Transporters |
| 740A-0067-486 | 449    | NYP004190013 | 29 WEST 82 STREET                  | Hazardous Waste Generators, Transporters |
| 740A-0067-546 | 406    | NYP044177630 | 104 WEST 80 STREET                 | Hazardous Waste Generators, Transporters |
| 740A-0068-239 | 466    | NYP004177580 | OPP 141 W. 78ST                    | Hazardous Waste Generators, Transporters |
| 740A-0068-288 | 503    | NYP004189908 | SB 13554 F/O 106 W 75TH ST         | Hazardous Waste Generators, Transporters |
| 740A-0068-644 | 386    | NYP004191276 | W 77 ST AND COLUMBUS AVE           | Hazardous Waste Generators, Transporters |
| 740A-0071-989 | 484    | NYP004186664 | W 75TH ST & COLUMBUS AVE           | Hazardous Waste Generators, Transporters |
| 740A-0072-064 | 412    | NYP004199287 | 345 COLUMBUS AVE                   | Hazardous Waste Generators, Transporters |
| 740A-0072-157 | 399    | NYR000176487 | 44 W 77TH ST                       | Hazardous Waste Generators, Transporters |
| 740A-0074-747 | 485    | NYP004188868 | W 75TH ST & COLUMBUS AVE           | Hazardous Waste Generators, Transporters |
| 740A-0075-858 | 437    | NYP004169363 | 25 W 76TH ST                       | Hazardous Waste Generators, Transporters |
| 740A-0081-111 | 448    | NYP004250080 | F/O 26-28 W 76TH ST 7 COLUMBUS AVE | Hazardous Waste Generators, Transporters |
| 740A-0081-220 | 459    | NYP004250080 | 26-28 W 76TH ST E OF COLUMBUS AVE  | Hazardous Waste Generators, Transporters |
| 740A-0082-210 | 425    | NYP004255352 | F/O 43 W 76 E/O COLUMBUS AVE       | Hazardous Waste Generators, Transporters |
| 740A-0082-717 | 487    | NYP004253407 | S/W/C W 75 ST & COLUMBUS AVE       | Hazardous Waste Generators, Transporters |
| 740A-0082-726 | 387    | NYP004252771 | N/W/C W 77TH ST AND CENTRAL PA     | Hazardous Waste Generators, Transporters |
| 740A-0082-728 | 388    | NYP004253761 | N/E COLUMBUS & 77 ST               | Hazardous Waste Generators, Transporters |
| 740A-0084-267 | 489    | NYP004274387 | S/W/C W 75 ST & COLUMBUS AVVE      | Hazardous Waste Generators, Transporters |
| 740A-0084-281 | 488    | NYP004272118 | SWC W 75 & COLUMBUS AVE            | Hazardous Waste Generators, Transporters |
| 740A-0086-663 | 443    | NYP004295259 | F/O 339 COLUMBUS AVE               | Hazardous Waste Generators, Transporters |
| 740A-0093-754 | 410    | NYP004321824 | FO 343 COLUMBUS AVE NO 76 ST       | Hazardous Waste Generators, Transporters |
| 740A-0093-758 | 416    | NYP004321931 | FO 114 W 78 ST EO AMSTERDAM AVE    | Hazardous Waste Generators, Transporters |
| 740A-0093-763 | 400    | NYP004322335 | FO 440 COLUMBUS AVE NO 81 ST       | Hazardous Waste Generators, Transporters |
| 740A-0093-764 | 444    | NYP004322343 | FO 338 COLUMBUS AVE NO 75 ST       | Hazardous Waste Generators, Transporters |
| 740A-0093-770 | 409    | NYP004322467 | FO 117 W 79 ST EO AMSTERDAM AVE    | Hazardous Waste Generators, Transporters |
| 740A-0093-774 | 433    | NYP004322624 | FO 120 W 79 ST EO AMSTERDAM AVE    | Hazardous Waste Generators, Transporters |
| 740A-0093-775 | 408    | NYP004322632 | FO 118 W 79 ST EO AMSTERDAM AVE    | Hazardous Waste Generators, Transporters |
| 740A-0093-779 | 398    | NYP004322699 | FO 441 COLUMBUS AVE NO 81 ST       | Hazardous Waste Generators, Transporters |
| 740A-0093-783 | 413    | NYP004322756 | FO 112 W 81 ST EO AMSTERDAM AVE    | Hazardous Waste Generators, Transporters |

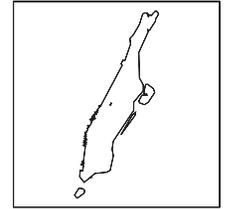
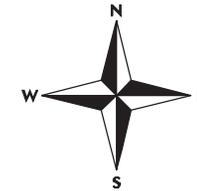
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| TT-ID         | MAP-ID | FACILITY ID  | FACILITY STREET                  | DATABASE                                 |
|---------------|--------|--------------|----------------------------------|------------------------------------------|
| 740A-0093-784 | 393    | NYP004322772 | FO 41 W 81 ST EO COLUMBUS AVE    | Hazardous Waste Generators, Transporters |
| 740A-0093-785 | 403    | NYP004322806 | FO 108 W 81 ST EO AMSTERDAM AVE  | Hazardous Waste Generators, Transporters |
| 740A-0093-786 | 465    | NYP004322962 | FO 145 W 79 ST & AMSTERDAM AVE   | Hazardous Waste Generators, Transporters |
| 740A-0093-787 | 492    | NYP004322970 | FO 150 W 79 ST & AMSTERDAM AVE   | Hazardous Waste Generators, Transporters |
| 740A-0093-789 | 493    | NYP004322996 | FO 150 W 79 ST & AMSTERDAM AVE   | Hazardous Waste Generators, Transporters |
| 740A-0093-790 | 502    | NYP004323044 | FO 109 W 83 ST & AMSTERDAM AVE   | Hazardous Waste Generators, Transporters |
| 740A-0093-981 | 498    | NYP004331971 | FO 152 W 78 ST                   | Hazardous Waste Generators, Transporters |
| 740A-0093-982 | 499    | NYP004331989 | FO 148 W 78 ST                   | Hazardous Waste Generators, Transporters |
| 740A-0095-414 | 421    | NYP004323143 | W 82 ST LO COLUMBUS AVE          | Hazardous Waste Generators, Transporters |
| 740A-0095-446 | 453    | NYP004323036 | FO 135 78 ST EO AMSTERDAM AVE    | Hazardous Waste Generators, Transporters |
| 740A-0095-459 | 384    | NYP004322475 | FO 422-424 COLUMBUS AVE          | Hazardous Waste Generators, Transporters |
| 740A-0095-461 | 382    | NYP004322483 | FO 426-428 COLUMBUS AVE NO 80 ST | Hazardous Waste Generators, Transporters |
| 740A-0095-462 | 383    | NYP004322491 | FO 430-32 COLUMBUS AVE NO 80 ST  | Hazardous Waste Generators, Transporters |
| 740A-0095-466 | 458    | NYP004322954 | FO 140 N 79 ST EO AMSTERDAM AVE  | Hazardous Waste Generators, Transporters |
| 740A-0095-479 | 463    | NYP004322947 | FO 9-11 W 81 ST EO COLUMBUS AVE  | Hazardous Waste Generators, Transporters |
| 740A-0095-480 | 381    | NYP004323150 | FO 51-7 W 81 ST EO COLUMBUS AVE  | Hazardous Waste Generators, Transporters |
| 740A-0096-530 | 427    | NYP004321915 | NWC 76 ST & COLUMBUS AVE         | Hazardous Waste Generators, Transporters |
| 740A-0096-553 | 389    | NYP004323655 | NW COLUMBUS & 77 ST              | Hazardous Waste Generators, Transporters |
| 740A-0096-555 | 376    | NYP004322459 | NWC 79 ST & COLUMBUS AVE         | Hazardous Waste Generators, Transporters |
| 740A-0096-568 | 377    | NYP004322616 | SWC 79 & COLUMBUS AVE            | Hazardous Waste Generators, Transporters |
| 740A-0096-793 | 482    | NYP004323051 | NEC 83 ST & COLUMBUS AVE         | Hazardous Waste Generators, Transporters |
| 740A-0101-723 | 420    | NYP004414678 | 129 W 80TH ST & AMSTERDAM AV     | Hazardous Waste Generators, Transporters |
| 740A-0102-987 | 464    | NYP004415584 | 47-49 75TH ST & CPW              | Hazardous Waste Generators, Transporters |
| 740A-0103-019 | 422    | NYP004427522 | 468 82ND ST & COLUMBUS AVE       | Hazardous Waste Generators, Transporters |
| 740A-0104-706 | 461    | NYP004418547 | F/O 20TH W 76TH ST               | Hazardous Waste Generators, Transporters |
| 740A-0109-778 | 454    | NYP004461216 | 130 W 80TH ST                    | Hazardous Waste Generators, Transporters |
| 740A-0118-622 | 478    | NYP004648887 | 219 CENTRAL PARK WEST            | Hazardous Waste Generators, Transporters |
| 740A-0119-120 | 472    | NYP004652006 | 34 W 83RD ST                     | Hazardous Waste Generators, Transporters |
| 740A-0119-401 | 428    | NYP004628343 | W 76 ST & COLUMBUS AVE           | Hazardous Waste Generators, Transporters |
| 740A-0119-415 | 479    | NYP004631966 | 98 W 83 ST                       | Hazardous Waste Generators, Transporters |
| 740A-0119-505 | 423    | NYP004657276 | W 82 ST & COLUMBUS AV            | Hazardous Waste Generators, Transporters |
| 740A-0120-601 | 438    | NYP004629028 | 25 W 76 ST                       | Hazardous Waste Generators, Transporters |
| 740A-0120-612 | 494    | NYP004629713 | 151 W 78 ST                      | Hazardous Waste Generators, Transporters |
| 740A-0120-686 | 495    | NYP004633319 | F/O 35 W 75 ST                   | Hazardous Waste Generators, Transporters |
| 740A-0120-728 | 501    | NYP004636353 | 18 W 83 ST & COLUMBUS            | Hazardous Waste Generators, Transporters |
| 740A-0121-077 | 447    | NYP004657292 | 16-18 W 82 ST & COLUMBUS AV      | Hazardous Waste Generators, Transporters |
| 740A-0121-079 | 439    | NYP004657466 | 55 W 82 ST & COLUMBUS AVE        | Hazardous Waste Generators, Transporters |
| 740A-0121-080 | 442    | NYP004657482 | 61 W 82 ST & COLUMBUS AVE        | Hazardous Waste Generators, Transporters |
| 740A-0121-143 | 402    | NYP004665659 | 108 W 81 ST                      | Hazardous Waste Generators, Transporters |
| 740A-0121-148 | 462    | NYP004665758 | 26 W 76 ST                       | Hazardous Waste Generators, Transporters |
| 740A-0121-151 | 451    | NYP004665790 | 111 W 82 ST                      | Hazardous Waste Generators, Transporters |
| 740A-0121-162 | 481    | NYP004666665 | 148 WEST 77TH STREET             | Hazardous Waste Generators, Transporters |
| 740A-0122-566 | 380    | NYP004616215 | 18-120 79 ST & COLUMBUS AVE      | Hazardous Waste Generators, Transporters |
| 740A-0122-569 | 397    | NYP004660627 | 420 COLUMBUS & 80 ST             | Hazardous Waste Generators, Transporters |
| 740A-0122-573 | 445    | NYP004628335 | OPP SIDE 116 W 76 ST             | Hazardous Waste Generators, Transporters |
| 740A-0122-574 | 473    | NYP004624887 | 143-144 W 78 ST                  | Hazardous Waste Generators, Transporters |
| 740A-0122-575 | 480    | NYP004629689 | 147-145 W 78 ST                  | Hazardous Waste Generators, Transporters |
| 740A-0122-576 | 474    | NYP004629697 | 143-144 W 78 ST                  | Hazardous Waste Generators, Transporters |
| 740A-0122-578 | 432    | NYP004616223 | 120-28 W 79 & COLUMBUS AVE       | Hazardous Waste Generators, Transporters |
| 740A-0122-579 | 435    | NYP004636387 | 20 WEST 82ND STREET              | Hazardous Waste Generators, Transporters |
| 740A-0122-580 | 441    | NYP004657474 | 51 W 82 & COLUMBUS AVE           | Hazardous Waste Generators, Transporters |

Continued from previous page

| TT-ID         | MAP-ID | FACILITY ID  | FACILITY STREET              | DATABASE                                 |
|---------------|--------|--------------|------------------------------|------------------------------------------|
| 740A-0123-546 | 378    | NYP004584280 | NWC 79 ST & COLUMBUS AVE     | Hazardous Waste Generators, Transporters |
| 740A-0123-547 | 379    | NYP004616207 | SWC 79 ST & COLUMBUS AVE     | Hazardous Waste Generators, Transporters |
| 740A-0123-549 | 424    | NYP004657888 | N/E/C 82 ST & COLUMBUS AVE   | Hazardous Waste Generators, Transporters |
| 740A-0130-738 | 419    | NYP000214569 | 100 W 77TH ST                | Hazardous Waste Generators, Transporters |
| 740A-0130-957 | 429    | NYP004747747 | W 76 ST & COLUMBUS AV        | Hazardous Waste Generators, Transporters |
| 740A-0131-485 | 415    | NYP004724308 | 113 W 78 ST                  | Hazardous Waste Generators, Transporters |
| 740A-0131-586 | 457    | NYP004735023 | 21-23 W 82 ST                | Hazardous Waste Generators, Transporters |
| 740A-0131-704 | 411    | NYP004748158 | OPP 341 COLUMBUS AVE & 76 ST | Hazardous Waste Generators, Transporters |
| 740A-0132-252 | 483    | NYP004748836 | NWC 83 & COLUMBUS AV         | Hazardous Waste Generators, Transporters |
| 740A-0132-524 | 430    | NYP004748166 | 76TH ST & COLUMBUS AVE       | Hazardous Waste Generators, Transporters |
| 900A-0003-582 | 504    | 36061N1208   | 211 CENTRAL PARK W           | Air Discharge Sites                      |

**Toxics Targeting  
1 Mile Buffer Search Map**  
American Museum of Natural History  
New York, NY 10024



New York County



National Priority List (NPL)



Inactive Hazardous Waste Disposal Registry Site



Inact. Haz Waste Disp. Registry Qualifying



RCRA Corrective Action Facility



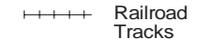
Subject Area



Waterbody



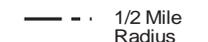
County Border



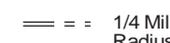
Railroad Tracks



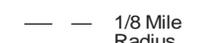
1 Mile Radius



1/2 Mile Radius



1/4 Mile Radius

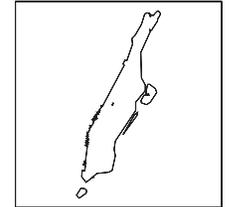
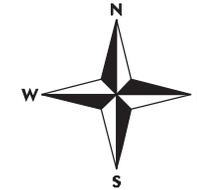


1/8 Mile Radius



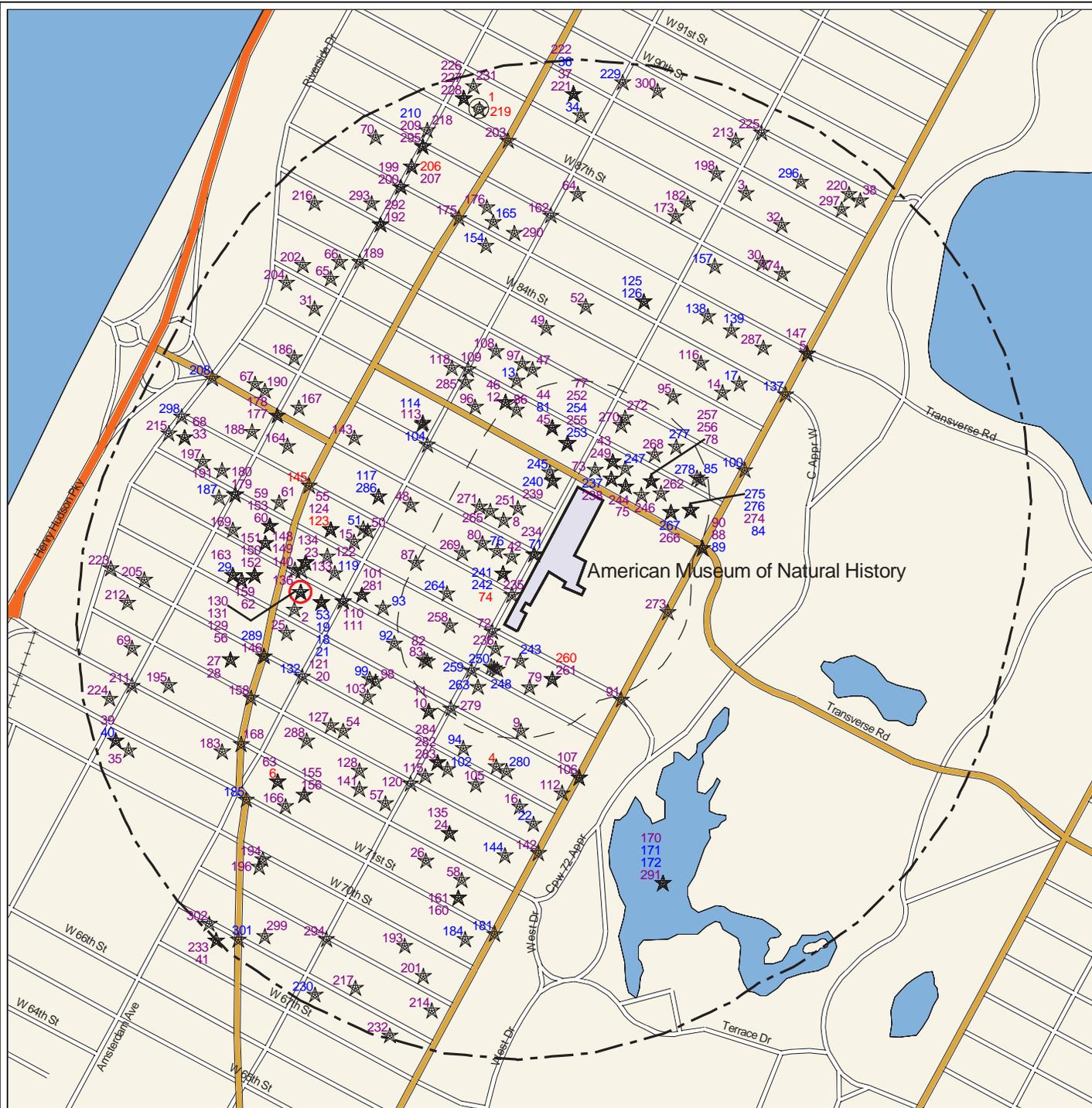
Scale: 1 inch = 1693 feet

# Toxics Targeting 1/2 Mile Buffer Search Map American Museum of Natural History New York, NY 10024



New York County

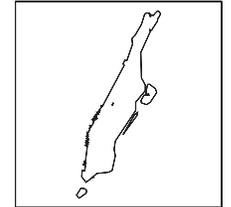
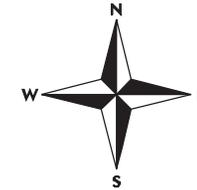
-  Delisted NPL Site
-  CERCLIS Superfund Non-NFRAP Site
-  CERCLIS Superfund NFRAP Site
-  Hazardous Waste Treater, Storer, Disposer
-  Hazardous Substance Waste Disposal Site
-  Solid Waste Facility
-  Brownfields Site
-  Hazardous Material Spill
-  MTBE Gasoline Additive Spill
-  Subject Area
-  Waterbody
-  County Border
-  Railroad Tracks
-  1 Mile Radius
-  1/2 Mile Radius
-  1/4 Mile Radius
-  1/8 Mile Radius



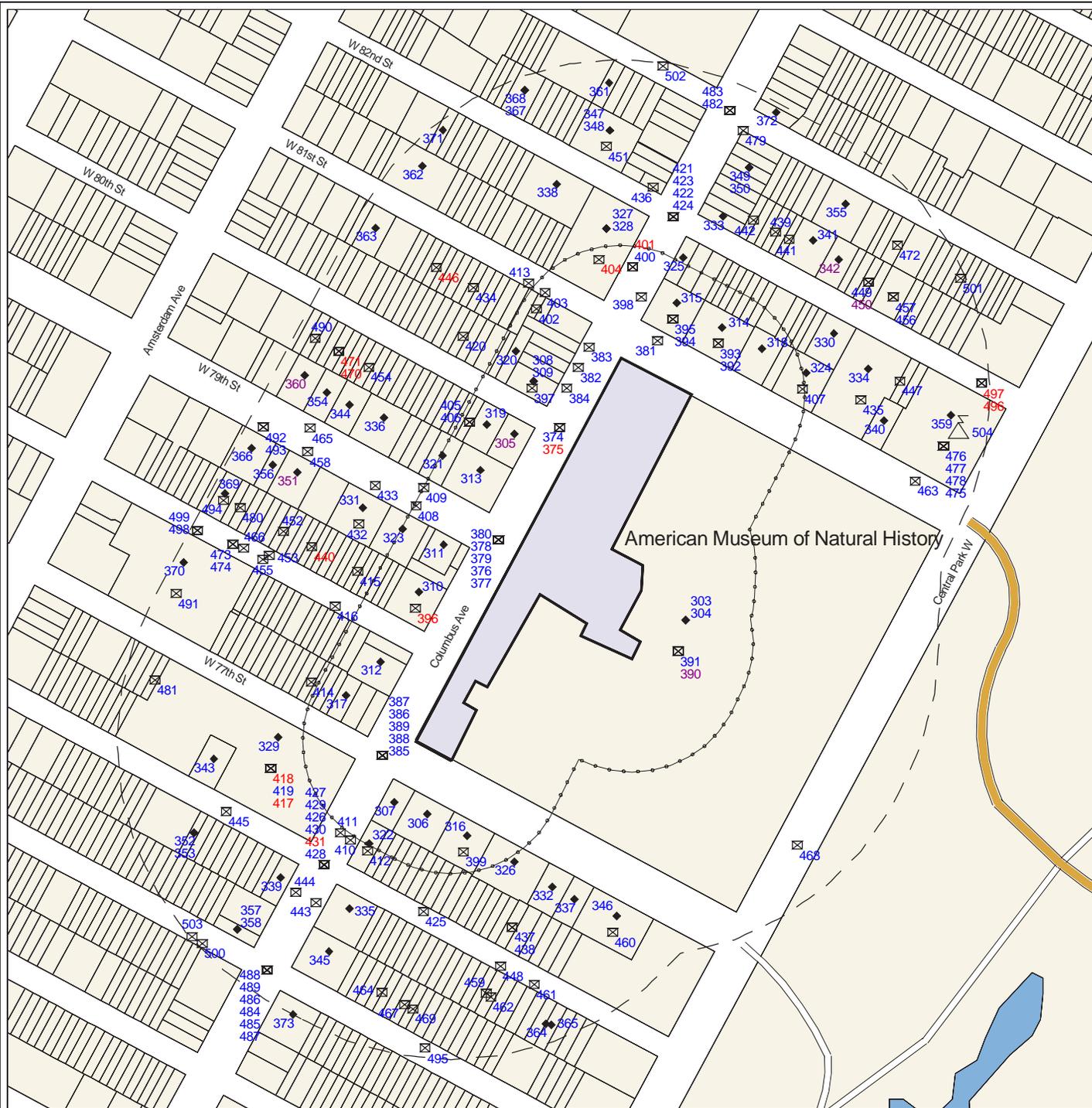
Scale: 1 inch = 912 feet

# Toxics Targeting 1/8 Mile Buffer Search Map

American Museum of Natural History  
New York, NY 10024



New York County



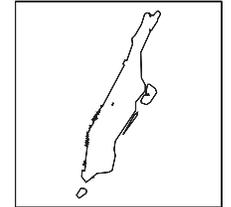
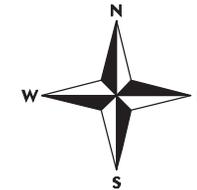
- Major Oil Storage Facility
- Chemical Storage Facility
- Toxic Release
- Wastewater Discharge
- Hazardous Waste Generator, Transp.
- Enforcement Docket Facility
- Air Release
- Env Qual Review E Designation
- Petroleum Bulk Storage Facility
- Historic Utility Site

- Subject Area
- Waterbody
- County Border
- Railroad Tracks
- 1/8 Mile Radius
- 250 Foot Radius

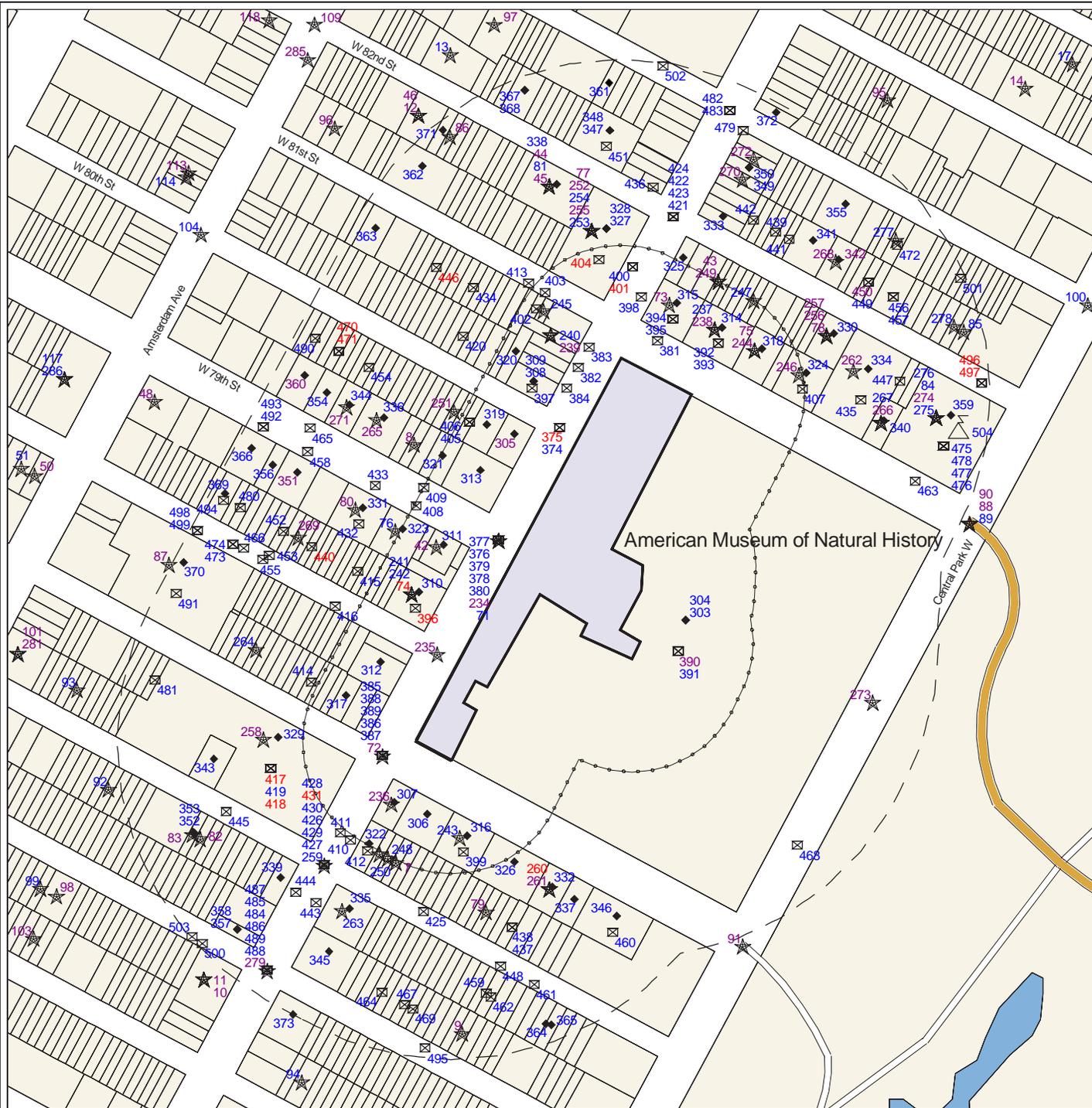
Scale: 1 inch = 327 feet

# Toxics Targeting 1/8 Mile Buffer Closeup Map

American Museum of Natural History  
New York, NY 10024



New York County



- |                                                   |                                              |
|---------------------------------------------------|----------------------------------------------|
| National Priority List (NPL) *                    | Delisted NPL Site **                         |
| CERCLIS Superfund Non-NFRAP Site **               | CERCLIS Superfund NFRAP Site                 |
| Inactive Hazardous Waste Disposal Registry Site * | Inact. Haz Waste Disp. Registry Qualifying * |
| Hazardous Waste Treater, Storer, Disposer **      | RCRA Corrective Action Facility *            |
| Hazardous Substance Waste Disposal Site **        | Solid Waste Facility **                      |
| Major Oil Storage Facility ****                   | Brownfields Site **                          |
| Chemical Storage Facility ****                    | Hazardous Material Spill **                  |
| Toxic Release ****                                | MTBE Gasoline Additive Spill **              |
| Wastewater Discharge ****                         | Petroleum Bulk Storage Facility ****         |
| Hazardous Waste Generator, Transp. ****           | Historic Utility Site ****                   |
| Enforcement Docket Facility ****                  | Air Release ****                             |
| Env Qual Review E Designation *****               | Remediation Site Borders                     |
| Subject Area                                      | Waterbody                                    |
| County Border                                     | Railroad Tracks                              |
| 1/8 Mile Radius                                   | 250 Foot Radius                              |

Scale: 1 inch = 327 feet

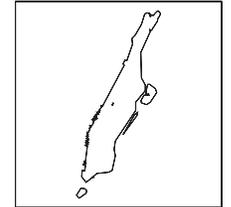
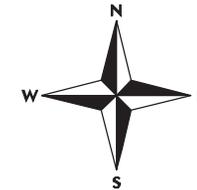
\* 1 Mile Search Radius  
\*\*\*\* 1/8 Mile Search Radius

\*\* 1/2 Mile Search Radius  
\*\*\*\*\* Onsite Search (250 Ft)

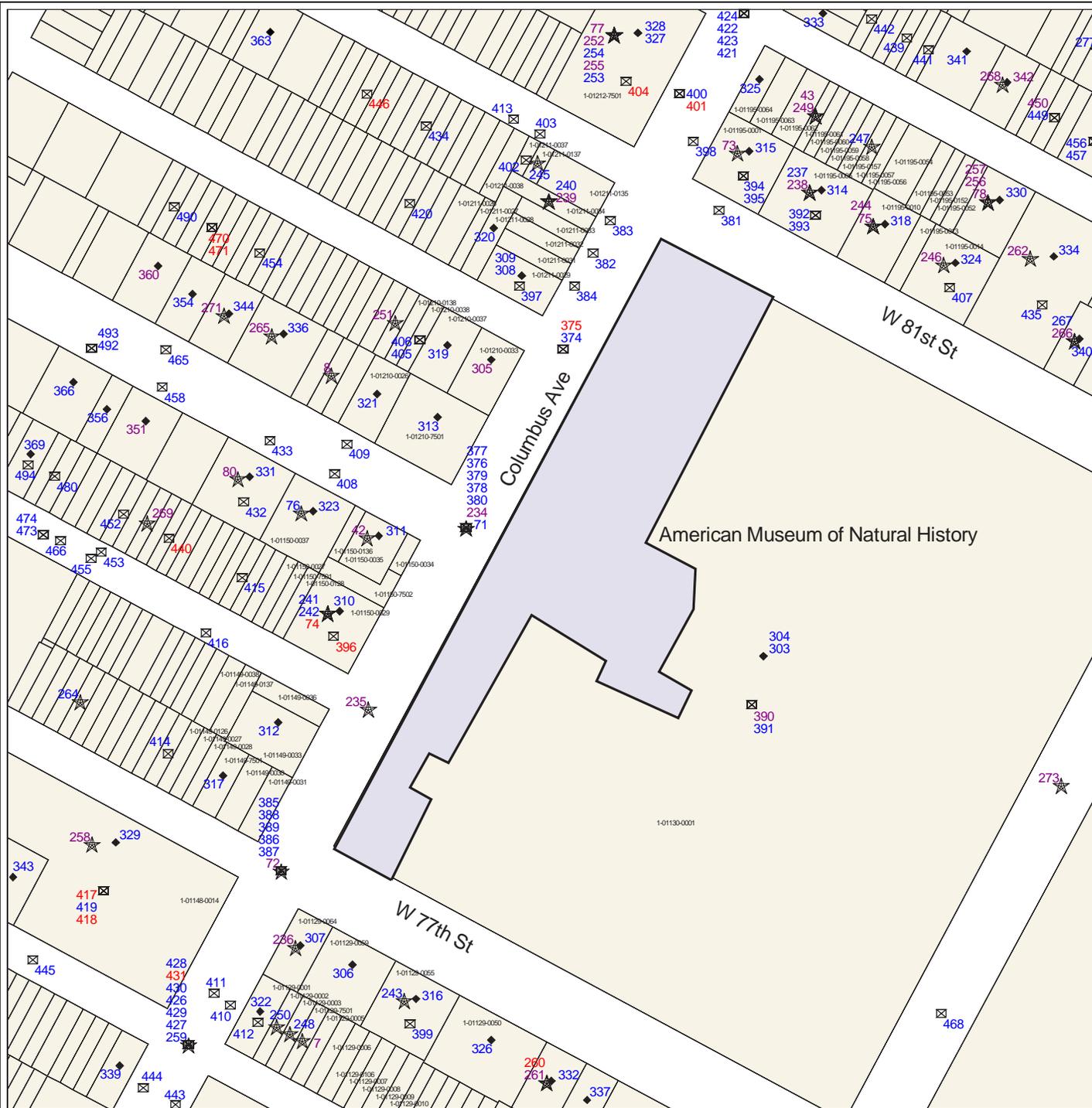
# Toxics Targeting Tax Parcel Map

## American Museum of Natural History

### New York, NY 10024



New York County



- |                                                 |                                            |
|-------------------------------------------------|--------------------------------------------|
| National Priority List (NPL)                    | Delisted NPL Site                          |
| CERCLIS Superfund Non-NFRAP Site                | CERCLIS Superfund NFRAP Site               |
| Inactive Hazardous Waste Disposal Registry Site | Inact. Haz Waste Disp. Registry Qualifying |
| Hazardous Waste Treater, Storer, Disposer       | RCRA Corrective Action Facility            |
| Hazardous Substance Waste Disposal Site         | Solid Waste Facility                       |
| Major Oil Storage Facility                      | Brownfields Site                           |
| Chemical Storage Facility                       | Hazardous Material Spill                   |
| Toxic Release                                   | MTBE Gasoline Additive Spill               |
| Wastewater Discharge                            | Petroleum Bulk Storage Facility            |
| Hazardous Waste Generator, Transp.              | Historic Utility Site                      |
| Enforcement Docket Facility                     | Air Release                                |
| Env Qual Review E Designation                   | Remediation Site Borders                   |
| Subject Area                                    | Waterbody                                  |
| County Border                                   | Railroad Tracks                            |

Scale: 1 inch = 205 feet

# Tax Parcel Information Table

## American Museum of Natural History New York, NY 10024

### Subject Parcel or Parcels

| BBL #        | Address               | Owner            | Zoning District(s) | Building Class | # of Buildings | Year Built | Assessment | Lot Area |
|--------------|-----------------------|------------------|--------------------|----------------|----------------|------------|------------|----------|
| 1-01130-0001 | 200 CENTRAL PARK WEST | CULTURAL AFFAIRS | PARK               | P7             | 7              | 1998       | 306495000  | 738000   |

### Other Parcels Found On The Tax Parcel Map

| BBL #        | Address             | Owner                  | Zoning District(s) | Building Class | # of Buildings | Year Built | Assessment | Lot Area |
|--------------|---------------------|------------------------|--------------------|----------------|----------------|------------|------------|----------|
| 1-01129-0003 | 55 WEST 76 STREET   | KEYAH GRANDE,          | C1-8A              | C5             | 1              | 1920       | 734400     | 2043     |
| 1-01212-7501 | 101 WEST 81 STREET  | ENDICOTT APARTMENT CO  | C1-8A R8B          | RM             | 1              | 1900       | 19235700   | 27364    |
| 1-01149-0038 | 108 WEST 78 STREET  | 108 W 78TH ST CORP     | R8B                | C6             | 1              | 1900       | 580551     | 2492     |
| 1-01195-0052 | 50 WEST 82 STREET   | PETER MAGNONE          | R8B                | C5             | 1              | 1900       | 321310     | 1635     |
| 1-01129-0006 | 49 WEST 76 STREET   | 49 WEST LLC            | R8B                | C5             | 1              | 1920       | 401217     | 2146     |
| 1-01149-0031 | 101 WEST 77 STREET  | 101 WEST 77TH STREET   | C1-8A              | C7             | 1              | 1900       | 2503800    | 3240     |
| 1-01211-0028 | 103 WEST 80 STREET  | DJL MAGNONE LLC        | R8B                | C1             | 1              | 1900       | 1128150    | 3550     |
| 1-01129-0064 | 66 WEST 77 STREET   | FANNY GRUNBERG & ASSO  | R10A               | D9             | 1              | 1926       | 3731400    | 5108     |
| 1-01195-0157 | 66 WEST 82 STREET   | 66-68 WEST 82ND STREE  | R8B                | C5             | 1              | 1900       | 427295     | 1992     |
| 1-01211-0032 | 426 COLUMBUS AVENUE | CONSOBRINI PROPERTIES  | C1-8A              | K2             | 1              | 1900       | 1522800    | 2550     |
| 1-01210-0026 | 117 WEST 79 STREET  | DLRH ASSOCIATES LLC    | R10A               | H9             | 1              | 1900       | 6727950    | 5849     |
| 1-01210-0138 | 106 WEST 80 STREET  | G.S. JAMES, LLC        | R8B                | C5             | 1              | 1910       | 459459     | 1788     |
| 1-01211-0038 | 110 WEST 81 STREET  | WALLIING, ALEXANDERR   | R8B                | C5             | 1              | 1900       | 297133     | 2346     |
| 1-01129-0059 | 52 WEST 77 STREET   | EQR-50 WEST 77TH, LLC  | R10A               | D6             | 1              | 1903       | 12125250   | 10216    |
| 1-01211-0031 | 424 COLUMBUS AVENUE | CONSOBRINI PROPERTIES  | C1-8A              | K2             | 1              | 1900       | 1682100    | 2550     |
| 1-01150-7501 | 105 WEST 78 STREET  | OWNER / AGENT          | R8B                | R1             | 1              | 1900       | 192202     | 1668     |
| 1-01210-0037 | 102 WEST 80 STREET  | COLUMBUS 80 TENANTS C  | C1-8A R8B          | D4             | 1              | 1901       | 2122200    | 6138     |
| 1-01195-0014 | 25 WEST 81 STREET   | TAYLOR ESTATES INC     | R10A               | D1             | 1              | 1927       | 8139600    | 10217    |
| 1-01211-0033 | 428 COLUMBUS AVENUE | R.A.V. BAROUCK, LLC    | C1-8A              | K9             | 1              | 1910       | 786150     | 2550     |
| 1-01129-0055 | 44 WEST 77 STREET   | PARK 44 CORP           | R10A               | D4             | 1              | 1909       | 8503200    | 10216    |
| 1-01211-0026 | 123 WEST 80 STREET  | 80 COLUMBUS OWNERS CO  | R8B                | C6             | 2              | 1890       | 922500     | 3882     |
| 1-01210-0038 | 104 WEST 80 STREET  | DOULTON REALTY LLC     | R8B                | C5             | 1              | 1910       | 412200     | 1788     |
| 1-01150-0034 | 392 COLUMBUS AVENUE | 42-78/86 REALTY, LLC   | R10A               | C7             | 1              | 1920       | 484754     | 963      |
| 1-01150-7502 | 386 COLUMBUS AVENUE | COLUMBUS HOUSE         | R10A               | RM             | 2              | 1988       | 5665495    | 3968     |
| 1-01195-0054 | 56 WEST 82 STREET   | SANDBERG MANAGEMENT CR | R8B                | C6             | 1              | 1900       | 961650     | 4973     |
| 1-01149-7501 | 105 WEST 77 STREET  | THE MUSEUM 77 CONDO    | C1-8A              | RM             | 1              | 1900       | 1636202    | 3523     |
| 1-01195-0001 | 441 COLUMBUS AVENUE | 51 WEST 81ST STREET C  | R10A               | D4             | 1              | 1905       | 7278300    | 10216    |
| 1-01129-0010 | 39 WEST 76 STREET   | 39 WEST 76TH STREET P  | R8B                | A4             | 1              | 1910       | 720672     | 2342     |
| 1-01150-0035 | 102 WEST 79 STREET  | 102 ASSOCIATES LLC     | R10A               | D9             | 1              | 1931       | 2561400    | 4826     |
| 1-01195-0013 | 33 WEST 81 STREET   | CAROL LYNTON           | R10A               | A4             | 1              | 1900       | 224762     | 2554     |
| 1-01195-0060 | 72 WEST 82 STREET   | PILAR S. DOWNING REAL  | R8B                | C5             | 1              | 1892       | 354940     | 1635     |
| 1-01195-0152 | 52 WEST 82 STREET   | MAGNONE, PETER         | R8B                | C5             | 1              | 1900       | 321310     | 1635     |
| 1-01211-0137 | 106 WEST 81 STREET  | AHRC NYC PROPERTIES,I  | R8B C1-8A          | C3             | 1              | 1900       | 344854     | 1126     |
| 1-01211-0034 | 430 COLUMBUS AVENUE | COLUMBUS MYLE CORP     | C1-8A R8B          | C6             | 1              | 1900       | 900000     | 3328     |
| 1-01129-0009 | 41 WEST 76 STREET   | HUVILINNA INC          | R8B                | C5             | 1              | 1900       | 324000     | 2248     |
| 1-01149-0030 | 103 WEST 77 STREET  | DELTER REALTY LLC C/O  | C1-8A              | C7             | 1              | 1910       | 1310850    | 3523     |
| 1-01195-0063 | 78 WEST 82 STREET   | WALBER 82ND ST ASSOCT  | C1-8A              | C1             | 1              | 1900       | 841050     | 3576     |
| 1-01149-0033 | 370 COLUMBUS AVENUE | 370 COLUMBUS REALTY L  | C1-8A R8B          | D9             | 1              | 1910       | 2212200    | 8137     |

| BBL #        | Address             | Owner                 | Zoning District(s) | Building Class | # of Buildings | Year Built | Assessment | Lot Area |
|--------------|---------------------|-----------------------|--------------------|----------------|----------------|------------|------------|----------|
| 1-01150-0037 | 112 WEST 79 STREET  | 118 TENANTS CORP      | R10A               | D4             | 1              | 1925       | 7111350    | 9604     |
| 1-01150-0029 | 380 COLUMBUS AVENUE | JOBEN REALTY ASSOCIAT | C1-8A              | D6             | 1              | 1900       | 4555800    | 10217    |
| 1-01150-0136 | 110 WEST 79 STREET  | 110 W 79 ST CO        | R10A               | S2             | 1              | 1900       | 178364     | 1380     |
| 1-01150-0128 | 103 WEST 78 STREET  | GAVIN G SPENCER       | R8B                | B9             | 1              | 1910       | 137203     | 1720     |
| 1-01210-7501 | 101 WEST 79 STREET  | THE PARK BELVEDERE CO | R10A               | RM             | 1              | 1986       | 25195061   | 12191    |
| 1-01195-0059 | 70 WEST 82 STREET   | 70 W. 82ND, LLC       | R8B                | C5             | 1              | 1900       | 423142     | 1839     |
| 1-01210-0033 | 410 COLUMBUS AVENUE | ORLEANS REALTY,LLC    | C1-8A              | D7             | 1              | 1900       | 10255050   | 6539     |
| 1-01129-0008 | 43 WEST 76 STREET   | 43 WEST 76TH STREET   | R8B                | C5             | 1              | 1920       | 514449     | 2146     |
| 1-01129-7501 | 53 WEST 76 STREET   | PARK 76TH CONDO       | C1-8A              | RM             | 1              | 1900       | 698850     | 2043     |
| 1-01211-0135 | 100 WEST 81 STREET  | WEST 81 ST OWNERS COR | C1-8A              | D4             | 1              | 1920       | 1875600    | 4605     |
| 1-01195-0056 | 62 WEST 82 STREET   | KELLY , JOHN H        | R8B                | C0             | 1              | 1899       | 188640     | 1998     |
| 1-01129-0106 | 47 WEST 76 STREET   | 47 W 76 ST TENANTS CO | R8B                | C6             | 1              | 1920       | 461370     | 2248     |
| 1-01211-0027 | 119 WEST 80 STREET  | 119 WEST 80TH ST TENA | R8B                | C6             | 1              | 1900       | 245829     | 1700     |
| 1-01129-0007 | 45 WEST 76 STREET   | 45 WEST 76TH STREET L | R8B                | C5             | 1              | 1900       | 424569     | 2043     |
| 1-01195-0053 | 54 WEST 82 STREET   | 54 WEST 82 ST CORP    | R8B                | C6             | 1              | 1900       | 516587     | 2247     |
| 1-01149-0028 | 109 WEST 77 STREET  | JOHN RICHARD STARKEY  | R8B                | C5             | 1              | 1910       | 533871     | 1925     |
| 1-01149-0036 | 376 COLUMBUS AVENUE | DONN R. BERNSTEIN     | C1-8A R8B          | D4             | 1              | 1926       | 821340     | 2727     |
| 1-01149-0137 | 106 WEST 78 STREET  | WHIPPLE HOUSE INC     | R8B                | C6             | 1              | 1920       | 578636     | 2412     |
| 1-01195-0061 | 74 WEST 82 STREET   | OWNERS OF 74 W 82ND S | R8B                | C6             | 1              | 1900       | 260000     | 1635     |
| 1-01129-0050 | 40 WEST 77 STREET   | 4077 OWNERS CORP      | R10A               | D4             | 1              | 1928       | 13927950   | 14493    |
| 1-01150-0027 | 107 WEST 78 STREET  | 107 W 78 STREET CORP  | R8B                | C6             | 1              | 1900       | 433550     | 1720     |
| 1-01149-0126 | 113 WEST 77 STREET  | 113 WEST 77TH REALTY  | R8B                | C6             | 1              | 1930       | 401468     | 1939     |
| 1-01129-0002 | 57 WEST 76 STREET   | LAURENT,FELIX         | C1-8A              | C7             | 1              | 1900       | 359252     | 2043     |
| 1-01148-0014 | 149 WEST 76 STREET  | BOARD OF EDUCATION    | R8B C1-8A          | W1             | 1              | 1956       | 33464700   | 88365    |
| 1-01195-0062 | 76 WEST 82 STREET   | WALBER 82ND ST ASSOCT | C1-8A              | C1             | 1              | 1900       | 1131300    | 3576     |
| 1-01195-0005 | 45 WEST 81 STREET   | EXCELSIOR             | R10A               | H9             | 1              | 1923       | 12773700   | 12771    |
| 1-01195-0058 | 68 WEST 82 STREET   | 66-68 WEST 82ND STREE | R8B                | C5             | 1              | 1900       | 461698     | 1839     |
| 1-01211-0037 | 108 WEST 81 STREET  | BREN-EL REALTY        | R8B                | S5             | 1              | 1910       | 197899     | 918      |
| 1-01195-0010 | 35 WEST 81 STREET   | BERGEL 81ST COMPANY   | R10A               | D4             | 1              | 1914       | 4701150    | 7775     |
| 1-01195-0064 | 80 WEST 82 STREET   | WALBER 82ND ST ASSOCT | C1-8A              | C7             | 1              | 1910       | 2083500    | 3065     |
| 1-01129-0001 | 59 WEST 76 STREET   | 341 COLUMBUS REALTYCO | C1-8A              | D9             | 1              | 1926       | 3767850    | 4087     |
| 1-01195-0057 | 64 WEST 82 STREET   | KRIEGER REALTY CORP   | R8B                | C5             | 1              | 1900       | 389749     | 1941     |
| 1-01149-0027 | 111 WEST 77 STREET  | MAGNONE PETER         | R8B                | C5             | 1              | 1900       | 450262     | 2090     |
| 1-01211-0029 | 418 COLUMBUS AVENUE | 101 W 80 OWNERS CORP  | C1-8A              | D4             | 1              | 1900       | 4320000    | 5118     |
| 1-01129-0005 | 51 WEST 76 STREET   | STELEX REALTY LLC     | R8B                | C0             | 1              | 1972       | 233246     | 2146     |

## Section Two: Toxic Site Profiles

The heading of each *Toxic Site Profile* refers to the site's map location and details:

- The facility name, address, city, state, and zip code.
- Any changes that were made to a site's address in order to map its location.
- The site mapping method that was used (see *How Sites are Located*, at the end of this section for more information).

*Toxic Site Profiles* summarize information provided by site owners or operators and government agencies regarding various toxic chemical activities reported at each site, such as:

- Whether chemicals were stored, produced, transported, discharged or disposed of.
- The name of chemicals and their Chemical Abstract Series (CAS) numbers.
- The amount of chemicals and the units (gallons/pounds) the chemical was measured in.
- Whether the site or storage tanks at the site are currently active or inactive.
- Special codes used by government agencies to regulate hazardous waste activities at some sites, or a complete description of the codes follows the profiles section.

For selected individual chemicals reported at various toxic sites, some potential health effect summary information appears below the site profile. Each potential health effect summary identifies chemicals by name and by Chemical Abstract Series (CAS) Number. An "x" under each potential health effect heading indicates positive toxicity testing results reported by the National Institute of Occupational Safety and Health's Registry of Toxic Effects of Chemical Substances (RTECS). Some chemicals (mostly appearing in profiles of Hazardous Waste facilities), are reported as mixtures, and RTECS health effect information is only available for individual chemicals. In addition, RTECS only provides information on approximately 100,000 common chemicals. Consequently, the absence of potential health effect summary information for a particular chemical identified in a Toxic Site Profile does not necessarily mean that the chemical does not pose potential health effects.

The Maximum Contaminant Level (MCL) in drinking water allowed for selected chemicals is also noted. In most cases, the only applicable MCL has been set by the New York State Department of Health (NYSDOH). Where NYSDOH has not set an MCL, the federal standard, if one exists, is listed and is marked by an asterisk.

Presented below are column headings that describe the health effect definitions used in RTECS and applicable New York State and federal drinking water standards. Reference sources for information presented in this section are also provided.

**ACUTE TOX:** **Acute Toxicity:** Short-term exposure to this chemical can cause lethal and non-lethal toxicity effects not included in the following four categories.

**TUMOR TOX:** **Tumorigenic Toxicity:** The chemical can cause an increase in the incidence of tumors.

MUTAG TOX: **Mutagenic Toxicity:** The chemical can cause genetic alterations that are passed from one generation to the next.

REPRO TOX: **Reproductive Toxicity:** May signify one of the following effects: maternal effects, paternal effects, effects on fertility, effects on the embryo or fetus, specific developmental abnormalities, tumorigenic effects, or effects on the newborn (only positive reproductive effects data for mammalian species are referenced).

IRRIT TOX: **Primary Irritant:** The chemical can cause eye or skin irritation.

MCL: **Drinking Water Standard - Maximum Contaminant Level (MCL)** listed under Drinking Water Supplies, 10 NYCRR Part 5, Subparts 1.51(f),(g), and (h) for NYDOH MCL's and under the Safe Drinking Water Act, 40 CFR 141, Subparts B and G, (\* indicates value for total trihalomethanes) for federal MCL's.

Reference Source for Toxicity Information: Registry of Toxic Effects of Chemical Substances (RTECS), NIOSH (on-line database); For further information, contact: NIOSH, 4676 Columbia Parkway, Cincinnati, OH, 45226, 800/35-NIOSH.

Reference Source for Drinking Water Standards: New York State Department of Health, Bureau of Toxic Substances Assessment, 2 University Place, Room 240, Albany, NY 12203, 518/458-6373.

U.S. Environmental Protection Agency, Office of Drinking Water, 401 M St SW, Mailstop WH-556, Washington, DC, 20460, 202/260-5700.

Inactive Hazardous Waste Disposal Site Classifications:

- 1 -- Causing or presenting an imminent danger of causing irreversible or irreparable damage to the public health or the environment -- immediate action required;
- 2 -- Significant threat to the public health or environment -- action required;
- 3 -- Does not Present a significant threat to the environment or public health -- action may be deferred;
- 4 -- Site properly closed --requires continued management;
- 5 -- Site properly closed, no evidence of present or potential adverse impact -- no further action required;
- 2a -- This temporary classification has been assigned to sites where there is inadequate data to assign them to the five classifications specified by law;
- A -- Work underway and not yet complete;
- P -- Potential Site;
- D<sub>1</sub>, 2, 3 -- Delisted Site (1: hazardous waste not found; 2: remediated; 3: consolidated site or site incorrectly listed);
- C -- Remediation Complete (formerly D2).



***NO NATIONAL PRIORITIES LIST (NPL) SITES IDENTIFIED WITHIN 1 MILE SEARCH RADIUS***



***NO INACTIVE HAZ WASTE DISPOSAL REGISTRY OR REGISTRY-QUALIFYING SITES IDENTIFIED WITHIN 1 MILE SEARCH RADIUS***



***NO RCRA CORRECTIVE ACTION SITES IDENTIFIED WITHIN 1 MILE SEARCH RADIUS***



***NO CERCLIS SUPERFUND SITES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS***



**BROWNFIELDS SITES (STATE & LOCAL) IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS**

PLEASE NOTE: \* Compass directions can vary substantially for sites located very close to the subject property address.

**Map Identification Number 1**

**267-273 WEST 87TH STREET**

**Facility Id: C231096**

267-273 WEST 87TH STREET, NEW YORK, NY 10024

TT-Id: 320A-0004-384

MAP LOCATION INFORMATION

Site location mapped by: MAP COORDINATE (1)  
Approximate distance from property: 2415 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Brownfield Program: Brownfield Cleanup Program

\*\*\*\*\*

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
DIVISION OF ENVIRONMENTAL REMEDIATION  
BROWNFIELD CLEANUP PROGRAM

CLASSIFICATION CODE: A

REGION: 2

SITE CODE: C231096

DEC ID: 507420

CLASSIFICATION CODE DESCRIPTION:

Work is underway and not yet complete.

NAME OF SITE: 267-273 West 87th Street

STREET ADDRESS: 267-273 West 87th Street

CITY: New York ZIP: 10024

TOWN: New York City

COUNTY: New York

ESTIMATED SIZE: 0.23 Acre

SITE TYPE: Dump- Structure- Lagoon- Landfill- Treatment Pond-

INSTITUTIONAL/ENGINEERING CONTROLS:

None reported

CROSS REFERENCES:

None reported

SITE OWNER/OPERATOR/REPOSITORY INFORMATION:

CURRENT OWNER(S):

NAME: Riverview Operating Co., LLC  
ADDRESS: c/o Dr. Craig Rodgers  
872 Massachusetts Ave. #908  
Cambridge, NY 02139

Owner Type: Innocent Owner NonRegistry-HazSubs

OWNER(S) DURING DISPOSAL:

OPERATOR(S) DURING DISPOSAL:

APPLICANT REQUESTOR(S):

NAME: QSB 267 Property Co, LLC  
Andrew Till  
ADDRESS: c/o Simon Baron Development, LLC  
757 Third Avenue, Suite 1701  
New York, NY 10017

DOCUMENT REPOSITORY(S):

NAME: St. Agnes Public Library-Bloomingdale Branch  
ADDRESS: 444 Amsterdam Avenue  
New York, NY 10024

NAME: Manhattan Community Board #7  
Mark Diller  
ADDRESS: 250 West 87th Street  
New York, NY 10024

HAZARDOUS WASTE DISPOSAL PERIOD:

SITE DESCRIPTION:

Location: The site is located at 267-273 West 87th street in the Upper West Side neighborhood of Manhattan, New York. The site is approximately 0.23 acres( 10,070 square-foot). Site Features: The site, which consists of two parcels of land, Block 1235, Lots 5 and 7. Lot 5 is improved with a three-story parking garage structure with a basement. Lot 7 is improved with a seven-story parking garage with a basement. Each lot has 50 feet of frontage along the north side of West 87th Street. Current Zoning and Land Use: The site is zoned R10A which allows mixed residential and commercial use. The site is currently vacant and inactive, and intended use will be for Residential and Commercial. The surrounding parcels are currently used for a mixed-use of residential and commercial complexes.

Past Use of the Site/Historical Use: The site was historically developed with two structures, which were possibly indicative of stables, in 1902. By 1912 the portion of the site identified as Lot 5 was improved with the current site building. The portion of the site identified as Lot 7 was improved with a structure identified as N.Y. Cab Company. This structure appeared to be the same structure depicted on-site in 1902. The current site building on Lot 7 was constructed in 1916. The entire site is currently utilized as a parking garage.

Geology and Hydrogeology: The site is approximately 80 feet above mean sea level. The topography of the site is generally level, and the surrounding area slopes to the west-southwest toward the Hudson River. The subsurface strata at the site consists

of historic urban fill material consisting of sands, silts, clays and brick fragments encountered ranging from 0.2 to 7.5 feet below ground surface. Groundwater was encountered at depths ranging from approximately 2 to 4 feet below ground surface. Based on groundwater gauging, localized groundwater within the bedrock is estimated to flow to the west.

## CONFIRMED HAZARDOUS WASTE DISPOSED:

| TYPE                    | QUANTITY |
|-------------------------|----------|
| chromium                | UNKNOWN  |
| selenium                | UNKNOWN  |
| tetrachloroethene (PCE) | UNKNOWN  |
| ethylbenzene            | UNKNOWN  |
| xylene (mixed)          | UNKNOWN  |
| toluene                 | UNKNOWN  |
| trichloroethene (TCE)   | UNKNOWN  |
| sodium                  | UNKNOWN  |
| naphthalene             | UNKNOWN  |
| cis-1,2-dichloroethene  | UNKNOWN  |

## ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides. Soil: A total of twenty-four samples were collected at depth ranging from 1 to 15.5 feet below ground bgs). Petroleum-related VOCs, 1,2,4-trimethylbenzene, ethylbenzene, and n-propylbenzene were detected at depth of 4 to 7.5 feet bgs at the south and southwestern end of the property, including elevated level of total xylenes with a maximum concentrations of 620 parts per million(ppm) exceed the soil cleanup objectives(SCOs) for unrestricted use(0.3ppm). Elevated levels of metals were detected at the east, northeast, and southwestern portion of the property. Average concentrations of chromium found on-site (approximately 51 ppm) slightly exceed the soil cleanup objective (SCO) for unrestricted use (30 ppm).

Metals were found one location of off-site of the property. Concentrations of chromium, trivalent found off-site (50.8 ppm to 70.8 ppm) slightly exceed the soil cleanup objectives for unrestricted use (30ppm). Groundwater: Two bedrock monitoring wells were installed on-site of the property and one bedrock monitoring well was installed off-site of the property at a depth of 15 feet bgs. An elevated levels of TCE and its associated degradation products were found in groundwater at the southeast end at lot 7 of the site, significantly high and exceed groundwater standards (5 ppb), with a maximum concentration of 160 ppb. An elevated levels of PCE also was detected at the southeast end at Lot 7 of the site, exceed groundwater standards (5 ppb), with a maximum concentration of 880 ppb, at a 15 feet below groundwater table near underground storage tanks (USTs) area. A moderate amount of BTEX were found at the northwest end of the site. An Elevated levels of total and dissolved metals were found in groundwater at the southwest (Lot 5) and southeast (Lot 7) end of the site, exceed groundwater standards. A moderate amount of BTEX and elevated levels of total and dissolved metals were found, with maximum concentration of sodium is 166,000 ppb down-gradient of off-site at the south end of the site at a depth of 30 feet bgs.

Soil Vapor & Indoor Air: TCE was detected in soil vapor at elevated concentrations of 2,400 microgram per cubic meter ( $\mu\text{m}/\text{m}^3$ ) at the east end of the site and in indoor air at concentrations of 8.4  $\mu\text{g}/\text{m}^3$  at the central portion (Lot 7) of the site. BETX( benzene, ethylbenzene, toluene, and xylene) and tetrachloroethylene(PCE) were found at the east, west, north, and south end of the site, an elevated levels of PCE with a maximum concentrations of 7,100  $\mu\text{g}/\text{m}^3$  at the east end of the site. A moderate levels of VOCs including PCE, TCE and their degradation products were found of off-site of the outdoor air samples.

Data does not indicate any off-site impacts in soil vapor related to the site.

ASSESSMENT OF HEALTH PROBLEMS:

Direct contact with contaminants in the soil is unlikely because the site is covered with buildings and pavement. People may contact site related contaminants if they dig below the surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into the overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of the buildings, is referred to as soil vapor intrusion. Because the site is vacant, the inhalation of site-related contaminants due to soil vapor intrusion does not represent a current concern at the on-site buildings, but the potential exists for people to inhale site contaminants due to soil vapor intrusion at off-site buildings.

PROJECT COMPLETIONS:

Operable Unit 01 - Remedial Program

| PROJECT                | DESCRIPTION | END DATE   | STATUS |
|------------------------|-------------|------------|--------|
| Remedial Investigation |             | 06/17/2016 | Actual |

\*\*\*\*\*



***NO SOLID WASTE FACILITIES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS***



***NO HAZARDOUS WASTE TREATMENT/STORAGE/DISPOSERS IDENTIFIED WITHIN THE 1/2 MILE SEARCH RADIUS***



## **HAZARDOUS MATERIAL SPILLS INTRODUCTION**

The Hazardous Material Spills in this section are divided into eight spill cause groupings. These include:

Active Spills Section: Spills with incomplete paperwork that may or may not be cleaned up (See Date Cleanup Ceased)

- 1) Tank Failures
- 2) Tank Test Failures
- 3) Unknown Spill Cause or Other Spill Cause Hazardous Spills
- 4) Miscellaneous Spill Causes: Equipment Failure, Human Error, Tank Overfill, Deliberate Spill, Traffic Accidents, Housekeeping, Abandoned Drum, Vandalism and Storms.

Closed Status Spills Section: Spills with completed paperwork that may or may not be cleaned up (See Date Cleanup Ceased)

- 5) Tank Failures
- 6) Tank Test Failures
- 7) Unknown Spill Cause or Other Spill Cause Hazardous Spills
- 8) Miscellaneous Spill Causes: Equipment Failure, Human Error, Tank Overfill, Deliberate Spill, Traffic Accidents, Housekeeping, Abandoned Drum, Vandalism and Storms.

All spills within each spill cause category are presented in order of proximity to the subject site address.

**Please note that spills reported within 0.25 mile (or one-eighth mile in New York City) are mapped and profiled.**

**Between 0.25 mile (or one-eighth mile in New York City) and 0.5 mile, only the following spills are mapped and profiled:**

- \* Tank Failures;
- \* Tank Test Failures;
- \* Unknown Spill Cause or Other Spill Cause;
- \* Spills greater than 100 units of quantity; and
- \* Spills reported in the NYSDEC Fall 1998 MTBE Survey.

A table at the end of each section presents a listing of reported Miscellaneous Spills with less than 100 units located between 0.25 mile (or one-eighth mile in Manhattan) and 0.5 mile. These spills are neither mapped nor profiled.



***NO ACTIVE TANK FAILURES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS***



**ACTIVE TANK TEST FAILURES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS**

PLEASE NOTE: \* Compass directions can vary substantially for sites located very close to the subject property address.

**Map Identification Number 2**



**TTF**

215 WEST 75TH ST  
APT BUILDING

NEW YORK, NY

**Spill Number: 1409035**

**Close Date:**

TT-Id: 520A-0303-446

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 1299 feet to the WSW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
Notifier Type: Other  
Caller Name:  
DEC Investigator: SXMAHAT

Spiller: APT BUILDING  
Notifier Name:  
Caller Agency:  
Contact for more spill info: CHRIS QUINTANA

Spiller Phone:  
Notifier Phone:  
Caller Phone:  
Contact Person Phone:

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 12/05/2014 |                     | TANK TEST FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS |                      |

**Caller Remarks:**

8000 gal tank

**DEC Investigator Remarks:**

DEC Piper spoke with Chris Q. Tank is empty and failed a test. Temp tank is being set up and repairs will be made to tank. System will be retested prior to be put back into use.

2-374466

3/18/16: Mahat DEC Mahat received an email update from the contractor. A repair and retest was performed on the tank system. A report will be submitted to the Department by 3/31/16.

**Map Identification Number 3**



**TUZ MANAGMENT**  
595 COLUMBUS AVE

MANHATTAN, NY

**Spill Number: 0808308**

**Close Date:**  
TT-Id: 520A-0220-617

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 2101 feet to the NNE

**ADDRESS CHANGE INFORMATION**

Revised street: P1  
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
Notifier Type: Tank Tester  
Caller Name:  
DEC Investigator: VXBREVDO

Spiller: LATISHA – TUZ MANAGMENT  
Notifier Name:  
Caller Agency:  
Contact for more spill info: LISETTE HERNANDEZ

Spiller Phone:  
Notifier Phone:  
Caller Phone:  
Contact Person Phone: (718) 378-3000

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 10/23/2008 |                     | TANK TEST FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS |                      |

**Caller Remarks:**

TANK TEST FAILURE ON A 15,000 GALLON TANK, DRY LEAK. UNK IF IT IS A UST OR ABOVE GROUND STORAGE TANK. NO PRODUCT WAS SPILLED.

**DEC Investigator Remarks:**

PBS 2-601347 Owner: Goddard Riverside HDFC, Inc.

595 Columbus Ave, NY, NY 10024 Sent TTF Ltr to: Mr. Winston (212-765-7900) T.U.C. Mgmt Co. Inc. 119 West 57th St. Suite 1620 NY NY 10019-2303

07/16/13 – Spill Case is transferred from Moses Ajoku (PBS Unit) to Brevdo (Section B) as per DER Region 2 decision – Tank Test Failure Spill Case. VB



**ACTIVE UNKNOWN CAUSE SPILLS AND OTHER CAUSE SPILLS IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS**

PLEASE NOTE: \* Compass directions can vary substantially for sites located very close to the subject property address.

**Map Identification Number 4**

**CON ED**

NEW YORK, NY

**Spill Number: 1502443**

**Close Date:**



33 W 74TH ST

TT-Id: 520A-0309-017

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (3)

Approximate distance from property: 827 feet to the SSW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN

Notifier Type: Other

Caller Name:

DEC Investigator: Con Ed Unassigned

Spiller: ERT - UNKNOWN

Notifier Name:

Caller Agency:

Contact for more spill info: ERT

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: (212) 580-8383

| Spill Date        | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |         | Penalty Recommended |         |                      |
|-------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 06/04/2015        |                     | UNKNOWN        | NO                      |         | NO                  |         |                      |
| Material Spilled  |                     | Material Class | Quantity Spilled        | Units   | Quantity Recovered  | Units   | Resource(s) Affected |
| UNKNOWN PETROLEUM |                     | PETROLEUM      | 0.25                    | GALLONS | 0.00                | GALLONS | SOIL                 |

**Caller Remarks:**

found in excavation, c/u pending

**DEC Investigator Remarks:**

6/5/15: Mahat Spill case has been assignend to Con Ed Unassigned. EMIS : 241045 [ Crossed Referenced ]

**Map Identification Number 5**



**86 STREET TRANSVERSE DPR –DDC**

86TH STREET & TRANSVERSE ROAD

MANHATTAN, NY

**Spill Number: 9502313**

**Close Date:**

TT-Id: 520A-0096-489

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 1560 feet to the NE

**ADDRESS CHANGE INFORMATION**

Revised street: W 86TH ST / TRANSVERSE RD  
 Revised zip code: 10024

Source of Spill: UNKNOWN  
 Notifier Type: Responsible Party  
 Caller Name: WILLIAM FENNEL  
 DEC Investigator: ADZHITOM

Spiller: NYC DEPT OF PARKS  
 Notifier Name:  
 Caller Agency: NYC DGS  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (718) 937-3286  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 05/23/1995 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIESEL           | PETROLEUM      | -1.00            | GALLONS | 0.00               | GALLONS | GROUNDWATER          |

**Caller Remarks:**

CALLER FOUND UNKNOWN QUANTITY OF FUEL IN MONITORING WELL

**DEC Investigator Remarks:**

5/15/13–Spill # 1206884 was consolidated with spill # 9502313.

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was KOLLEENY

This site was investigated by URS, who proposed installing a GW pump & treat system. Site was then transferred to LiRo, who reviewed the data and agreed with that remedial approach, but modified the design of the remedial system. Kolleeny approved their design, system was installed and is currently operating at site to address dissolved-phase groundwater contamination.

This spill transferred from Kolleeny to A. Zhitomirsky on 4/13/05. – JK

10/21/2005 Pump and treat system is effectively treating site contamination. AZ

2/9/2006 Reviewed Quaterly Monitoring Report dated September 2005. According to the report pump and treat system is effectively

depressing the groundwater table. GW contamination levels have been variable. Based on the most recent data, continued operation of the remedial system is warranted. AZ

4/5/2006 Reviewed system monitoring report dated 3/13/2006. Pump and treat system has been effectively collecting contaminants. LiRo is no longer responsible for this site as of the end of December 2005. AZ

9/20/2006 Reviewed system monitoring report submitted by URS and dated 8/23/2006. Pump and treat system is collecting contaminants. URS recommended continuation of the system operation because of exceedances in contaminant concentrations measured during last monitoring event. AZ

3/14/2007 Reviewed system monitoring report submitted by URS and dated 1/15/2007. 4 wells were not sampled. URS proposed monitoring instead of active remediation. I contacted J. Staten and requested that URS access the wells which were not sampled. After results are received and evaluated, then DEC will consider change of remedial strategy. Also, downgradient wells should be sampled. AZ

8-14-2007 Reviewed request for revised remedial strategy submitted by URS and dated 5/30/2007. In April 2007 gw samples were collected. EW-02 was flooded, EW-03 and MW-08 were under a dumpster, EW-04 appears to have been paved over. The four wells displayed total VOC concentrations ranging from 41 ppb in MW-04 to 119 ppb in MW-07. URS stated that the plume is essentially contained within the property boundary. Existing VOC concentrations are not effectively treated by chemical oxidation injections or oxygen source injections. URS recommended monitored natural attenuation for this site. AZ

8-17-2007 An e-mail was sent to URS: I have reviewed request for revised remedial strategy submitted by URS and dated 5/30/2007. In April 2007 groundwater samples were collected. EW-02 was flooded, EW-03 and MW-08 were under a dumpster, EW-04 appears to have been paved over. URS stated that the plume is essentially contained within the property boundary. Existing VOC concentrations are not effectively treated by chemical oxidation injections or oxygen source injections. URS recommended monitored natural attenuation for this site. DEC concurred with URS's proposals. However, wells which have not been sampled should be sampled and repaired if needed. AZ

12-7-2007 Reviewed report dated October 24, 2007 for the Third Quarter 2007. On July 2, 2007, URS collected groundwater samples from accessible wells. Wells EW-03 and MW-08 are covered by a dumpster and inaccessible. Each well exhibited VOC exceeding Groundwater Quality Criteria. Total VOC concentrations ranged from 15 ppb to 572 ppb in MW-07. URS will continue quarterly groundwater sampling. An alternative remedial technology may be required in contaminant concentrations remain elevated in MW-07. AZ

3-11-2008 Reviewed report dated December 10, 2007 for the the 4th Quarter of 2007. The highest VOC concentrations were detected in MW-07 -224 PPB. URS will continue quarterly monitoring sampling to monitor progress of natural attenuation. AZ

5-1-2008 Reviewed report dated March 14, 2008 for the 1st Quarter of 2008. The highest VOC concentrations were detected in MW-07 -185 ppb. URS proposed to continue quarterly monitoring sampling to monitor progress of natural attenuation. In my e-mail to URS/DDC/VB I recommended due to the decrease in contaminant concentrations reduction of groundwater monitoring and reporting to bi-annual. AZ

8-22-2008 Reviewed report dated June 11, 2008 for the 2nd Quarter of 2008. Total VOC concentrations ranged from 21 ppb in MW-07 to 103 ppb in MW-03. As per DEC's recommendation, URS will collect groundwater samples on a semi-annual basis. AZ

10-1-2009 Reviewed report dated June 1, 2009 for the 2nd Quarter of 2009. Total VOC concentrations ranged from 12 ppb in MW-11 to 325 ppb in MW-07. Dissolved phase contamination is limited to the area around the active tanks and dispenser. URS will collect groundwater samples on a semi-annual basis. AZ

3-2-10 Reviewed report dated December 7, 2009 for the 4th Quarter of 2009. Total VOC concentrations ranged from 80 ppb in MW-03 to 1185 ppb in EW-02. Dissolved phase contamination is limited to the area around the active tanks and dispenser. According to URS, gw analytical data for EW-2 is unusual showing fluctuation every six month from non-detect to over 1000 ppb. The well was in very poor condition until it was repaired on October 16, 2009, may explain the variability of the data. Fuel spillage from the dispensing area would have drained into the well causing periodic spikes in concentrations. URS will continue to collect semi-annual gw samples. AZ

2-18-2011 An e-mail was sent to URS/DDC/V. Brevdo: I have reviewed semi-annual groundwater monitoring report for the above spill number for the second quarter 2010 dated Aug.30, 2010 and submitted to DEC at the meeting on 2-17-2011. Relatively high persistent dissolved phase groundwater contamination remains at the site. An actual tank inventory should be created for this site and compared to the existing PBS records. Four 550-gallon USTs closed in place remain at the site. These tanks might be contributing to the existing contaminant plume. The tanks should be removed if feasible. If natural attenuation at the site is not progressing, more active remedial approach should be undertaken. Monitoring well MW-10 can be removed from the monitoring schedule. AZ

6-21-2011 An e-mail was sent to URS/DDC/V. Brevdo: Dear Kevin, I have reviewed the Semi Annual Monitoring Report through 4th Quarter of 2010 dated April 8, 2011. URS stated that active fuel dispensing system could be a potential source contamination. URS planned to assess this possibility. I concur with the URS suggestion. The results of this assessment should be submitted to DEC. An actual tank inventory based on a filed visit assessment should be created for this site and compared to the existing PBS records. NYSDEC registry should be updated to reflect current USTs and ASTs located at the facility. Also, URS should consider removal of four 550-gallon USTs which were closed in place. AZ

1-4-2011 the following email was sent to K. Shenahan/V. Brevdo/M. Asbagh: Dear Kevin,

I have reviewed a report for the second quarter 2011 for dated October 7, 2011. The report stated that the removal of four 550 gallon gasoline tanks, that were closed in place, is probably not feasible. There is a persistent contamination in monitoring well EW-2 (1189 ppb), which was repaired in 2009. I suggest excavating area around this well, if feasible. AZ

8-27-2012 Reviewed report dated April 10, 2012. The report stated that lingering dissolved phase contamination remains at this site, especially in monitoring well EW-02. This monitoring well is located within the active fuel dispensing area and thus this well might be susceptible to surface infiltration of spilled petroleum compounds. URS inspected the well which was repaired in 2009, and determined that the well appears to be competent. The contamination also may be due to the migration of lingering contamination from the surrounding bedrock. AZ

4-4-2013 Reviewed a monitoring report for the first half of 2012. Removal/excavation of the closed in place tanks is not feasible. URS installed ORC socks in three wells. AZ

11-6-2013 Reviewed a monitoring report for the second half of 2012. In November 2012, 1-inch diameter well was reconstructed into a 4-inch diameter well to allow for the installation of ORC socks. Socks were installed in this well, and replaced in three other

wells, immediately following the well reconstruction. AZ

11–26–2013 Reviewed a report dated May 9, 2013. The report calls for consolidation of spills #9502343 and #1206884. Veronica Zhune previously closed spill #1206884 (consolidated with spill #9502343). Also, the report contained closure report for two 2,000 gallons gasoline tanks. The tanks were closed in October 2012. Post excavation soil samples indicated soil contamination in the south and west excavation sides. A strong petroleum odor was present and a petroleum sheen was seen floating on top of the water surface. Visual and olfactory evidence of petroleum contamination was observed during soil and groundwater sampling. AZ

5–6–2014 Reviewed a semi–annual monitoring report for the first half of 2013. The report stated that the PBS database identifies tanks #001 and 002 (both 2,000 gasoline USTs) as being in service. However, these tanks were removed by Franklin in October 2012. The UST closure report dated December 5, 2012, prepared by Franklin, included PBS notifications for these tanks that were closed and for the installation of one new 2,000 gallon tank designated as#008.

The following e–mail was sent to K. Shenahan and V. Brevdo:

Dear Kevin,

I have reviewed a semi–annual monitoring report for the first half of 2013, dated October 15, 2013. The report stated that PBS database identifies two USTs as being in service while they were removed in 2012.

NYCDDC should submit a correct application to DEC PBS Unit clarifying this discrepancy.

Please include information regarding this issue in your next monitoring report.

Sincerely,

Alexander Zhitomirsky

AZ

10–23–2014 Reviewed a semi–annual monitoring report for the second half of 2013. The report stated that the PBS database identifies tanks #001 and 002 (both 2,000 gasoline USTs) as being in service. However, these tanks were removed by Franklin in October 2012. The UST closure report dated December 5, 2012, prepared by Franklin, included PBS notifications for these tanks that were closed and for the installation of one new 2,000 gallon tank designated as#008. Lingering dissolved phase groundwater contamination remains at this site, primarily around well EW–02. This well was replaced in 2012. AZ

4–27–2015 Reviewed a semi–annual monitoring report for the second quarter of 2014. Lingering dissolved phase groundwater contamination remains at this site, primarily around well EW–02. This well was replaced in 2012. The latest groundwater results show a significant increase in total VOC concentrations. The highest total VOC concentration of any well in the previous quarter was 13 ppb at well EW–02, as compared to 10, 269 ppb detected at that well for this quarter. There is no immediate cause for the sudden increase. AZ

4–27–2015 Reviewed a monitoring report for the third and fourth quarters of 2014. Lingering dissolved phase groundwater contamination remains at this site within the bedrock aquifer. The latest three groundwater results show a significant increase

in total VOC concentrations at four monitoring wells located near the source area.

The highest total VOC concentration of any well in the previous quarter was 7675 ppb at well EW-02. The average groundwater elevation from all monitoring wells for the second quarter 2014 was nearly 7' higher than for the first quarter. It is likely that the unusually high water table submerged a contaminated area of soil/bedrock that typically is unsaturated and allowed additional contamination to dissolve into the groundwater. AZ

4-5-2016 Reviewed a monitoring report for the first and second quarters of 2015. Lingering dissolved phase groundwater contamination remains at this site within the bedrock aquifer. The latest groundwater results show a significant increase in total VOC concentrations at four monitoring wells located near the source area.

The highest total VOC concentration of any well in May 2015 was 6,177 ppb at well EW-02. The average groundwater elevation from all monitoring wells for the second quarter 2014 was nearly 7' higher than for the first quarter. It is likely that the unusually high water table submerged a contaminated area of soil/bedrock that typically is unsaturated and allowed additional contamination to dissolve into the groundwater. Groundwater elevations have since returned to more typical levels. AZ

6-7-2016 Reviewed a monitoring report for the third quarter of 2015. Lingering dissolved phase groundwater contamination remains at this site within the bedrock aquifer. The latest groundwater results show a significant increase in total VOC concentrations at four monitoring wells located near the source area.

The highest total VOC concentration of any well in May 2015 was 6,177 ppb at well EW-02. The average groundwater elevation from all monitoring wells for the second quarter 2014 was nearly 7' higher than for the first quarter. It is likely that the unusually high water table submerged a contaminated area of soil/bedrock that typically is unsaturated and allowed additional contamination to dissolve into the groundwater. Groundwater elevations have since returned to more typical levels. August 2015 sampling event recorded the highest VOC concentration in well EW-02 at 3,529 ppb. AZ

**Map Identification Number 6**



**BASEMENT**

166 W 72ND ST

MANHATTAN, NY

**Spill Number: 1506947**

**Close Date:**

TT-Id: 520A-0313-198

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (3)

Approximate distance from property: 1693 feet to the SW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Other

Caller Name:

DEC Investigator: RMPIPER

Spiller: UNKNOWN

Notifier Name:

Caller Agency:

Contact for more spill info: DIEGO VECENTI

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: (212) 265-1577

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 10/01/2015        |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | 0                | UNKNOWN                 | 0                  | UNKNOWN             |                      |

Caller Remarks:

Caller advised unknown oil is spilling into sub basement through the wall and unknown where the oil is coming from. Cleanup is pending.

DEC Investigator Remarks:

10/1/2015 – Feng – Duty Desk. Talked to Deanna Brown of NYCDEP HAZMAT (646-265-6130). DEP received a call complaining about oil spill in the basement and DEP responded to the spill. The spill is in the sub-basement. The first floor of the building is used for commercial purpose. She saw that the ground was wet and a puddle of oil on the floor. She could not tell whether it is leaking right now, but still could not exclude that it is from slow seepage through the wall. There are 2 points of contact on the wall that seem leaking and they are still wet. She inspected the tank which located in the basement in front of the building and it is intact. The problematic wall is located in the back near the courtyard. There is no piping running through the wall. She did not test the oil type. The spill happened 4 weeks ago. The building management did some investigation in the nearby building as they thought there was piping problem associated with the nearby building, but they could not find anything so they called in for a spill. She did not inspect any buildings nearby. There is odor inside the room with the oil spill. The rest of the building had no odor.

Building Management: Diego Vecenti 212-265-1577

open ttf – 1215632

10/20/15– DECPiper called diego to get update. Diego is no longer with Mgmt Co. I spoke with receptionist and explained who, why I was calling. Left message for his replacement.

Scott Price 'scottP@solil.com' 917-589-0408

5/16/16– DEC Piper received email from Curtis Breuer. I am doing a Phase I ESA for an adjacent property (171 W 71st St. \*\*\* suspected source property for this spill) to 166 West 72nd Street which has an active spill case numbered 1506947. You are listed as the investigator and we are hoping to find more information on this spill and its potential to be a REC to our target property.

Curtis Breuer Environmental Scientist/Geologist 45-09 Greenpoint Avenue Long Island City, New York 11104 Phone: (718) 784 7490 Fax: (718) 784 4085 www.athenica.com

DEC piper recommended phase 2 in area of drain in alley and along courtyard in rear.



***NO ACTIVE HAZARDOUS SPILLS – MISC. SPILL CAUSES – EQUIPMENT FAILURE, HUMAN ERROR, TANK OVERFILL, DELIBERATE SPILL, TRAFFIC ACCIDENT, HOUSEKEEPING, ABANDONED DRUM, VANDALISM AND STORMS – IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS.***  
 All spills mapped and profiled within 1/8 mile. Between 1/8 mile and 1/2 mile search radius, spills reported to be greater than 100 units and spills reported in the NYSDEC Fall 1998 MTBE Survey are mapped and profiled. Spills reported to be less than 100 units are listed in a table at the end of this section.

**THE FOLLOWING ACTIVE SPILLS FOR THIS CATEGORY WERE REPORTED BETWEEN 1/8 MILE AND 1/2 MILE SEARCH RADIUS FROM THE SUBJECT ADDRESS. THESE SPILLS WERE REPORTED TO BE LESS THAN 100 UNITS IN QUANTITY AND CAUSED BY: EQUIPMENT FAILURE, HUMAN ERROR, TANK OVERFILL, DELIBERATE SPILL, TRAFFIC ACCIDENT, HOUSEKEEPING, ABANDONED DRUM, VANDALISM, OR STORMS. THESE SPILLS ARE NEITHER MAPPED NOR PROFILED IN THIS REPORT.**

| FACILITY ID | FACILITY NAME             | STREET                                | CITY      |
|-------------|---------------------------|---------------------------------------|-----------|
| 0911994     | PRIVATE DWELLING BASEMENT | 52 WEST 88TH ST                       | MANHATTAN |
| 1406513     | APARTMENT BUILDING        | 117 WEST 70TH STREET                  | MANHATTAN |
| 1508926     | APT BUILDING              | 375 WEST END AVE                      | NEW YORK  |
| 1410287     | MANHOLE MH61729           | WEST END AVE BETWEEN 85TH AND 86TH ST | MANHATTAN |



**CLOSED STATUS TANK FAILURES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS**

PLEASE NOTE: \* Compass directions can vary substantially for sites located very close to the subject property address.

**Map Identification Number 7**      **53 W 76TH ST CONDOMINIUM**      **Spill Number: 0106772**      **Close Date: 10/13/2005**  
 53 W 76TH ST      MANHATTAN, NY      TT-Id: 520A-0095-757

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 252 feet to the SSW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                        |                                                   |                                      |
|----------------------------------------|---------------------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: MR CONE                                  | Spiller Phone: (877) 641-5900        |
| Notifier Type: Other                   | Notifier Name:                                    | Notifier Phone:                      |
| Caller Name: MIKE SHAW                 | Caller Agency: METRO FUEL                         | Caller Phone: (718) 383-1400         |
| DEC Investigator: JMPELTON             | Contact for more spill info: MICHAEL TYLER REALTY | Contact Person Phone: (877) 641-5900 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 09/28/2001 |                     | TANK FAILURE   | YES                     | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 5.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

TWIN 275 GALLON TANKS – ONE TANK WAS PUROUS – PETROLEUM TANK CLEANERS RESPONDED & PUMPED TANK OUT – DRYZOL PUT DOWN & WILL BE PICKED UP ON MONDAY AFTER IT HAS A CHANCE TO ABSORB

**DEC Investigator Remarks:**

OCTOBER 13, 2005 As part of the Spills Reduction Initiative, this spill (sp0106772)was assigned to Jason Pelton. On October 12,

2005 Jason Pelton spoke with Roger Romance at Metro Fuel Oil Corp. Metro Fuel was the agency that reported the spill on September 28, 2001. According to the discussion with Roger, the Metro Fuel dispatcher (Mike Shaw) reported the petroleum spill due to petroleum odors that were noticed. Roger indicated that Metro Fuel subsequently performed a service call on September 28, 2001 and identified a small hole in the bottom of the above ground storage tank in the basement. The quantity of petroleum reported was five gallons.

During the phone conversation with Roger Romance, Jason Pelton asked to have documentation on the service call sent to the NYSDEC Albany office. Roger subsequently sent a letter, via fax, documenting the service call and cleanup activities for the estimated 5-gallon petroleum spill. The letter was received on October 12, 2005.

Based on the small quantity of petroleum released (5-gallons), the documented cleanup activities by Metro Fuel Oil Corp, and the repairs made to the above ground storage tanks by Metro Fuel, the petroleum spill was closed by Jason Pelton on August 13, 2005.

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIPPLE 10/3/03 TIPPLE SENT LETTER REQUESTING DOCUMENTATION 11/18/03 DOCUMENTATION TO BE SENT

9/9/2005 – Tipple transferred outside of DEC Remediation – found a report and forwarded it up to Mike Komoroske in Albany.

**Map Identification Number 8**      **123 W. 79TH STREET**      **Spill Number: 9213467**      **Close Date: 11/07/1997**  
 123 W. 79TH STREET      MANHATTAN, NY      TT-Id: 520A-0091-955

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 315 feet to the WNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                              |                              |                       |
|------------------------------|------------------------------|-----------------------|
| Source of Spill: UNKNOWN     | Spiller: UNKNOWN             | Spiller Phone:        |
| Notifier Type: Other         | Notifier Name:               | Notifier Phone:       |
| Caller Name:                 | Caller Agency:               | Caller Phone:         |
| DEC Investigator: UNASSIGNED | Contact for more spill info: | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 03/05/1992 |                     | TANK FAILURE   | NO                      | NO                  |

| Material Spilled                                                                                            | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------------------------------------------------------------------------------------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| The following material(s) was dropped or revised by the NYS DEC. Call Toxics Targeting for more information |                |                  |         |                    |         |                      |
| UNKNOWN MATERIAL                                                                                            | UNKNOWN        | 0                | GALLONS | 0                  | GALLONS |                      |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was XX

CLOSED DUE TO INSUFICIENT INFORMATION.

**Map Identification Number 9** **RESIDENCE** **Spill Number: 0600431** **Close Date: 10/24/2006**  
 29 WEST 75TH STREET NEW YORK CITY, NY TT-Id: 520A-0090-479

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 598 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: VINNY LOVARI – RESIDENCE Spiller Phone: (718) 509-5900  
 Notifier Type: Other Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: Caller Phone:  
 DEC Investigator: JMKRIMGO Contact for more spill info: VINNY LOVARI Contact Person Phone: (718) 509-5900

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 04/11/2006       |                     | TANK FAILURE     | YES                     |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 0                | GALLONS                 | 0                  | GALLONS             | SOIL                 |

Caller Remarks:

they figure at least but no more than 3 drums of contaminated soil. Clean up will begin tonight. This tank that has a hole in it, has not been used in a long time because the home owner has moved to natural gas. The tank has been pumped out and cleaned up, tank was cut and found the hole in the bottom

DEC Investigator Remarks:

Sangesland will send a CSL

10/12/2006 Island Environmental Tank submitted a report to the DEC dated Aug 29, 2006

10/24/06. J Krimgold reviewed the tank closure report submitted by Island Enviro. Tank, Inc. According to the report sludge was found at the tank bottom. The tank was cleaned, cut and removed. About 4.5 cu. ft of contaminated soil was also removed and disposed of. Six soil samples were taken around the tank. Samples do not exhibit excess of contaminants in the soil. NFA letter.

**Map Identification Number 10**      **102 WEST 75TH ST**  
 102 WEST 75TH ST

**Spill Number: 9700871**      **Close Date: 10/18/2005**  
 MANHATTAN, NY      TT-Id: 520A-0095-753

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 699 feet to the SW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                          |                                      |
|-----------------------------------|------------------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: DAVID RAMOS – LEEBAR MANAGEMENT | Spiller Phone: (212) 895-7271        |
| Notifier Type: Responsible Party  | Notifier Name:                           | Notifier Phone:                      |
| Caller Name: DAVID RAMOS          | Caller Agency: LEEBAR MANAGEMENT         | Caller Phone: (212) 895-7271         |
| DEC Investigator: jdjarrat        | Contact for more spill info: MR AYALA    | Contact Person Phone: (212) 787-8942 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 04/20/1997 |                     | TANK FAILURE   | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #6 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

**Caller Remarks:**

LEAKED FROM TANK – CONTAINED IN VAULT

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was AUSTIN 3/23/04 – AUSTIN – ORIG. ASSIGNED TO ENGELHARDT – END 7/15/05 transferred to Jarratt (co) Closed 10/18/05 by Jarratt

**Map Identification Number 11** **100 WEST 75TH STREET**  
 100 WEST 75TH STREET

MANHATTAN, NY

**Spill Number: 9700866**

**Close Date: 02/19/2003**  
 TT-Id: 520A-0095-752

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 699 feet to the SW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Other  
 Caller Name: JIM CAREY  
 DEC Investigator: CAENGELH

Spiller: ASSOCIATED REALTY  
 Notifier Name: MR AYALA  
 Caller Agency: CASTLE OIL CORPORATION  
 Contact for more spill info: MR AYALA

Spiller Phone:  
 Notifier Phone: (212) 787-8942  
 Caller Phone: (718) 579-3414  
 Contact Person Phone: (212) 787-8942

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 04/20/1997 |                     | TANK FAILURE   | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #4 FUEL OIL      | PETROLEUM      | 50.00            | GALLONS | 50.00              | GALLONS | SOIL                 |

**Caller Remarks:**

UNSURE IF LEAK IS FROM TANK ITSELF OR SOME PIECE OF PIPING/EQUIPMENT. INTO VAULTED TANK ROOM. CALLER HAS HIS PERSONNEL ON SCENE. TANK TO BE EVACUATED. ABC TANK CLEANING COMPANY CONTACTED FOR CLEAN UP.

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was ENGELHARDT 2/19/2003 - Closed Due To The Nature / Extent Of The Spill Report

**Map Identification Number 12** **APARTMENT**  
 150 WEST 82ND STREET

MANHATTAN, NY 10024

**Spill Number: 0409941**

**Close Date: 03/27/2007**  
 TT-Id: 520A-0098-747

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 702 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: MARK SALAMACK – APARTMENT Spiller Phone: (917) 559–5519 ext. C  
 Notifier Type: Other Notifier Name: MARK SALAMACK Notifier Phone: (718) 624–4842  
 Caller Name: MARK SALAMACK Caller Agency: PETROLIUM TANK CLEANERS Caller Phone: (718) 624–4842  
 DEC Investigator: HRPATEL Contact for more spill info: MARK SALAMACK Contact Person Phone: (917) 559–5519 ext. C

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/07/2004 |                     | TANK FAILURE   | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #6 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

TANK L;ET GO AND IS SPILLING OIL; ON FLOOR AND HAS GONE INTO A SUMP PIT AND IS SHOOTING IT IN THE SEWER SYSTEM:

DEC Investigator Remarks:

12/19/05 Feroze. Spill is transferred from Ketani to Feroze.

01/23/06. Feroze,PBS of this spill is 2–084271. TTF is sent to:

Gerald Rivera Mann Realty Associates 1776 Broadway, 23RD Floor NY 10019

02/27/06. Feroze called to 212–977–0000. Ms. Jamie is the property manager of the building. A message is left for him.

03/15/06. Spill is transferred from Feroze to Kumer Patel.

04/06/06–Hiralkumar Patel. Spoke with Ms. Jamie (212–977–0000 Ext. 236, FAX: 212–977–0087) at Mann Realty Assocs. Ms. Jamie will contact Petroleum as they worked on site and will call back or send required documents.

Mann Realty Assocs 1776 Broadway New York, NY 10019–2002

05/04/06–Hiralkumar Patel. Left message for Ms. Jamie. 05/16/06–Hiralkumar Patel. Spoke to Ms. Jamie. she will call Petroleum and will call back. 05/22/06–Hiralkumar Patel. Spoke at petroleum. they dug out concrete floor in basement and removed it. they installed temp tank. no further work done. Left message for Ms. Jemi. 05/25/06–Hiralkumar Patel. Left message for Ms. Jamie. 05/31/06–Hiralkumar Patel. REceived call from Ms. Jamie. as per her, petroleum has removed their temp tank. Jamie will send documents which she has and will call petroleum about final report. told Ms. Jamie that the department needs end point sample

results also.

06/02/06–Hiralkumar Patel. received documents from Jamie Perna. this contains documents about new tank installation. as per notes in letter from NYC Dept. of Building, they have replaced 4000 gal AST with 3200 gal AST.

06/06/06–Hiralkumar Patel. Left message for Jamie. 06/09/06–Hiralkumar Patel. Left message for Jamie. 06/30/06–Hiralkumar Patel. Visited site. spoke with David Cresp (347–273–0058), super of building. building had old tank enclosed in concrete vault. David observed oil coming out from weep holes and notified his management company. owner changed tank and installed new 3200 gal AST on legs. tank has concrete wall around it with weep holes at bottom. during tank replacement, owner build new concrete pad to put tank on and painted tank box from inside and tank from outside. as per David, tank removal company took some soil samples after they removed old tank. currently, floor around tank box is in bad condition having broken concrete. and weep holes at bottom of tank box opens in this floor and because of this, tank box would not be considered as secondary containment.

spoke to Joe at Petroleum. he will call back with more information. Received call from Diana from Petroleum. as per her, petroleum replaced old tank but never took any soil samples.

Left message for Jamie to call back by Friday July 7, 2006.

PBS #: 2–084271. PBS record shows only one tank of 4000 gal capacity. no information about any tank removal or installation of new tank at site. need to update PBS records also.

sent out CSL to Jamie Perna at following address requiring to submit PBS registration, soil/groundwater delineation & installation of secondary containment. letter faxed to Ms. Perna.

Jamie Perna Mann Realty Associates 1776 Broadway, 23rd Floor New York, NY 10019 Ph. (212) 977–0000 Ext. 236 FAX (212) 977–0086

08/10/06–Hiralkumar Patel. spoke with Ms. Perna. she request copy of letter. send fax to Ms. Perna. property manager is Deborah Perna (212–977–0000 Ext. 238). 08/23/06–Hiralkumar Patel. left message for Jamie Perna. 08/31/06–Hiralkumar Patel. left message for Deborah Perna. received call from Jamie. she doesn't know about any soil investigation done after previous tank removal. she has PBS application ready and will send to PBS section. they are dealing with Petroleum about soil investigation around previous tank location. she will asked Petroleum to submit work plan by Sep. 15, 2006.

09/12/06–Hiralkumar Patel. received letter from Jamie Perna, Assistant property manager. she sent copy of PBS application, work invoice copy from petroleum. as per Jamie, property manager is out of office and once she comes back to office, Jamie will take her signature on proposal for soil/groundwater investigation and will send it to the Department. received work invoice copies for work done by Petroleum. summary: – first invoice (11/02/2004):– perform tank test and tank failed – Second invoice (12/13/2004):– pump out sump pit

– pump and clean 1–4000 gal tank

– disposed 500 gal of water – third invoice (12/27/2004) :– cut out and removed 1–4000 gal tank – fourth invoice (02/23/2005):– fabricate and install new 3,300 gal tank – fifth invoice (08/09/2005) :– disposed 40–55 gal drums – sixth invoice (09/08/2005) :– disposed off 100 gal of water

11/14/06–Hiralkumar Patel. left message for Ms. Perna. 11/29/06–Hiralkumar Patel. left message for Ms. Perna.  
11/30/06–Hiralkumar Patel. left message for Elizabeth, assistant of Deborah Perna. Jamie Perna is no longer working at this management.

12/01/06–Hiralkumar Patel. Spoke with Ms. Perna. they haven't started any work yet and Ms. Perna doesn't have letter that the Department has sent on 06/30/06. she will check Jamie Perna's files for this letter. explained Ms. Perna that the department requires soil/groundwater delineation, tank registration and installation/correction of secondary containment. she will hire contractor and will send work plan for soil/groundwater delineation.

12/11/06–Hiralkumar Patel. received message from Ms. Perna (Cell: 347–723–8402). she asked copy of letter that was sent previously. spoke with Ms. Perna. sent out copy of letter in email to Ms. Perna (deborah@mannrealty.com)

12/18/06–Hiralkumar Patel. left message for Ms. Perna. 12/19/06–Hiralkumar Patel. spoke with Ms. Perna. she will call her contractor and will call back. 12/20/06–Hiralkumar Patel. left message for Ms. Perna. 12/22/06–Hiralkumar Patel. received email from Ms. Perna. she signed contract with PTC for soil/groundwater delineation. she will send further documents once she gets from PTC.

01/02/07–Hiralkumar Patel. received message from Ms. Perna on 12/29/06. PTC will start soil investigation this week.

01/11/07–Hiralkumar Patel. spoke with Mark. as per him, he was at scene when spill happened in 2004 and PTC installed new tank at that time. Mark saw area where oil spilled. as per Mark, owner did hire another company for spill cleanup in 2004, but no soil investigation was done at that time. Mark got proposal back and waiting for initial payment to start soil/groundwater delineation work. he will also ask owner to build barrier next to weep holes in tank vault.

03/27/07–Hiralkumar Patel. received report from Mark. abstract:

...PTC drilled under the tank in the center and at each end of the tank, at an angle to obtain soil from under the location of the tank from a depth of approx. 2 ft below the level of the bottom of the new tank (same location of the old tank)

...another sample was taken from an area adjacent to the tank from about two inches below the level of the concrete floor, where oil was observed at time of the leak.

...at the time PTC went to install the concrete pad and new tank that the area had already been broken, excavated, and that there were no VISIBLE SIGNS OF CONTAMINATION, NOR WAS THERE ANY LINGERING ODOR OF OIL IN THE SOIL.

no contamination found in any sample. based on available report, case closed. NFA sent to Ms. Perna. letter faxed to Ms. Perna and Mark at PTC.

**Map Identification Number 13** **139 WEST 82ND ST/MANH**  
 139 WEST 82ND STREET

NEW YORK CITY, NY

**Spill Number: 9011428**

**Close Date: 09/21/1991**  
 TT-Id: 520A-0098-758

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 772 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Citizen  
 Caller Name: ANONYMOUS  
 DEC Investigator: SULLIVAN

Spiller: UNKNOWN  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/30/1990 | 09/21/1991          | TANK FAILURE   | UNKNOWN                 |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Spilled          | Units   | Recovered          | Units   |                      |
| #4 FUEL OIL      | PETROLEUM      | -1.00            | UNKNOWN | 0.00               | UNKNOWN | SEWER                |

Caller Remarks:

OIL SEEPING THROUGH WALL FROM TANK ROOM & INTO SUMP PIT, BEING PUMPED INTO SEWER.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 14** **APARTMENT BUIDLING**  
 15 WEST 84TH STREET

NEW YORK, NY

**Spill Number: 0411524**

**Close Date: 03/29/2005**  
 TT-Id: 520A-0091-580

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1003 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Responsible Party  
 Caller Name: DOROTHY SERDEINS  
 DEC Investigator: CESAUYER

Spiller: DOROTHY- MANAGER - APARTMENT BUIDLING  
 Notifier Name: DOROTHY SERDEINS  
 Caller Agency: SELF MANAGED CO-OP  
 Contact for more spill info: DOROTHY- MANAGER

Spiller Phone: (212) 721-9699  
 Notifier Phone: (212) 721-9699  
 Caller Phone: (212) 721-9699  
 Contact Person Phone: (212) 721-9699

|                  |                                                                                                                                                                             |                |                         |         |                     |         |                      |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| Category:        | Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters. |                |                         |         |                     |         |                      |
| Class:           | Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency                                                                         |                |                         |         |                     |         |                      |
| Spill Date       | Date Cleanup Ceased                                                                                                                                                         | Cause of Spill | Meets Cleanup Standards |         | Penalty Recommended |         |                      |
| 01/26/2005       |                                                                                                                                                                             | TANK FAILURE   | NO                      |         | NO                  |         |                      |
| Material Spilled |                                                                                                                                                                             | Material Class | Quantity Spilled        | Units   | Quantity Recovered  | Units   | Resource(s) Affected |
| #2 FUEL OIL      |                                                                                                                                                                             | PETROLEUM      | 0                       | GALLONS | 0                   | GALLONS | SOIL                 |

Caller Remarks:

HAS A LEAK AT THIS APRTMENT BUILDING; OIL CO WILL BE IN TO SWITCH TANKS AND REPAIR: RND SERVICES INC. WILL RESPOND

DEC Investigator Remarks:

Sangesland spoke to Dorothy who is one of the resident owners of this co-op building and she will be the owner contact for this project. Dorothy says that the tank sprung a small leak and she called in because there was a small puddle under the tank. Bob Hayman and Nick Eagle from RND Services (845-348-6355) were called to the building. They said the leak was not that big and will return tomorrow with a temporary tank set up. Once that is on line, the existing 7,500 gal tank will be cleaned out, repaired and retested.

1/28/05 –Modified TTF ltr sent

03/29/05 – Sawyer – The owners contracted with Empire Environmental to have the 7,500 gallon underground tank removed. Empire was required to also excavate the tank grave and to send the clean end point samples to the Department. No further action necessary.

**Map Identification Number 15** **201 WEST 77TH STREET**  
 201 WEST 77TH STREET

MANHATTAN, NY

**Spill Number: 9206055**

**Close Date: 02/05/1998**  
 TT-Id: 520A-0098-725

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1065 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                        |                              |                              |
|----------------------------------------|------------------------------|------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller:                     | Spiller Phone:               |
| Notifier Type: Other                   | Notifier Name:               | Notifier Phone:              |
| Caller Name: MARK SALAMACK             | Caller Agency: ABC TANK      | Caller Phone: (718) 272-2800 |
| DEC Investigator: KSTANG               | Contact for more spill info: | Contact Person Phone:        |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/25/1992 |                     | TANK FAILURE   | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 1000             | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

TANK RUPTURE, INTO BOILER AND TANK ROOM, NO BID YET TO CLEAN UP

EMERGENCY CONTACT MR. PETERSEL (212)877-9349. TANK ALOT SERVICED THE TANK ALOT SERVICED THE TANK ON 6/23/92 BY ERIC

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TANG ABOVEGROUND SPILL. TOLD OWNER TO CLEAN UP.

**Map Identification Number 16** **APT COMPLEX**  
 10 WEST 74TH ST

**Spill Number: 0211222** **Close Date: 02/10/2003**  
 MANHATTAN, NY TT-Id: 520A-0091-402

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1066 feet to the S

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                        |                                     |                                      |
|----------------------------------------|-------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: APT COMPLEX                | Spiller Phone:                       |
| Notifier Type: Other                   | Notifier Name: RAY LARA             | Notifier Phone: (718) 624-4842       |
| Caller Name: RAY LARA                  | Caller Agency: PETROLEUM TANK       | Caller Phone: (718) 624-4842         |
| DEC Investigator: JBVOUGHT             | Contact for more spill info: CALLER | Contact Person Phone: (646) 772-6884 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 02/08/2003 |                     | TANK FAILURE   | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 10.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

tank failed and spilled oil. clean up crew being organized.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was VOUGHT Rommel 02/10/2003 Closed and referenced to 0211227.

**Map Identification Number 17** **24 WEST 85TH ST/MANH**  
 24 WEST 85TH STREET

NEW YORK CITY, NY

**Spill Number: 9000527**

**Close Date: 04/16/1990**  
 TT-Id: 520A-0091-748

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1116 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Responsible Party  
 Caller Name: ANGELO BAERENCLAU  
 DEC Investigator: TOMASELLO

Spiller: UNKNOWN  
 Notifier Name:  
 Caller Agency: BAERENCLAU  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (718) 647-4200  
 Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 04/16/1990 | 04/16/1990          | TANK FAILURE   | UNKNOWN                 | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 1.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

TANK LEAKED INTO BASEMENT, OWNER CLEANED IT UP.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 18** **EXXONMOBIL** **Spill Number: 9905193** **Close Date: 07/14/2003**  
 332 AMSTERDAM AVENUE , NY TT-Id: 520A-0098-739

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1138 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: GASOLINE STATION OR PBS FACILITY Spiller: EXXONMOBIL Spiller Phone:  
 Notifier Type: Affected Persons Notifier Name: EMILY Notifier Phone: (212) 496-2100  
 Caller Name: KEITH ROBBINS Caller Agency: ANSONIA VETERNARIAN CENTE Caller Phone: (212) 496-2100  
 DEC Investigator: SIGONA Contact for more spill info: Contact Person Phone:

Category: Known release which created a fire/explosion hazards (inside or outdoors), drinking water supply contamination, or significant releases to surface waters.

Class: Unknown RP – DEC Field Response – DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 07/30/1999 |                     | TANK FAILURE   | NO                      |  | NO                  |  |

| Material Spilled                                                                                            | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------------------------------------------------------------------------------------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE                                                                                                    | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | AIR                  |
| The following material(s) was dropped or revised by the NYS DEC. Call Toxics Targeting for more information |                |                  |         |                    |         |                      |
| UNKNOWN MATERIAL                                                                                            | UNKNOWN        | 0                | GALLONS | 0                  | GALLONS |                      |

Caller Remarks:

CALLER STATES THAT CONSTRUCTION IS BEING DONE IN THEIR BUILDING AND THEY ARE SMELLING SOME TYPE OF UNKNOWN ODOR CALLER WAS TOLD BY CONST WORKER TAKING AIR SAMPLES THAT IF THEY SMELT ANYTHING TO CALL NYS SPILL LINE

NO CLEAN UP IS INTHE PROCESS GIVE COMPANY A CALL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 19** **EXXONMOBIL**  
 332 AMSTERDAM AVENUE

, NY

**Spill Number: 9904998**

**Close Date: 07/14/2003**  
 TT-Id: 520A-0098-738

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1138 feet to the W

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: GASOLINE STATION OR PBS FACILITY  
 Notifier Type: Affected Persons  
 Caller Name: DR PHILLIP FREIDMAN  
 DEC Investigator: SIGONA

Spiller: EXXONMOBIL OIL CORP  
 Notifier Name:  
 Caller Agency: CITIZEN  
 Contact for more spill info: CALLER

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (212) 496-2100  
 Contact Person Phone:

Category: Known release which created a fire/explosion hazards (inside or outdoors), drinking water supply contamination, or significant releases to surface waters.  
 Class: Unknown RP – DEC Field Response – DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 07/23/1999 |                     | TANK FAILURE   | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE         | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | GROUNDWATER          |

Caller Remarks:

Caller reports excavation of site next to his clinic and fumes and vapors are coming into his building making people sick. DEC's Kerri O'Dowd was out there yesterday and told them to call this in if it happened again –

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 20** **EXXONMOBIL**  
 332 AMSTERDAM AVENUE

, NY

**Spill Number: 9904995**

**Close Date: 05/11/2004**  
 TT-Id: 520A-0098-737

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1138 feet to the W

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: GASOLINE STATION OR PBS FACILITY  
 Notifier Type: Affected Persons  
 Caller Name: NICOLLE LEIFER  
 DEC Investigator: DKHARRIN

Spiller: EXXONMOBIL OIL CORP  
 Notifier Name:  
 Caller Agency: AKRF  
 Contact for more spill info: CALLER

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (212) 340-9784  
 Contact Person Phone:

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.  
 Class: Unknown RP – DEC Field Response – DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 07/22/1999 |                     | TANK FAILURE   | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE         | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | GROUNDWATER          |
| OTHER PETROLEUM  | UNKNOWN        | 0                | GALLONS | 0                  | GALLONS |                      |

Caller Remarks:

Spill reported in 1995. Caller found more contaminated soil while investigating the site.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was HARRINGTON DEC (Sigona) Re-assigned to (O'Dowd) on 7/30/99. DEC (Sigona) with consultation from DEC (O'Dowd) requested that the investigation reports by AKRF (Rudko) be sent to (O'Dowd). This site was former PBS gas station at 332 Amsterdam Avenue with multiple spill reports. AKRF is supervising the construction of building with a 35' deep excavation. AKRF will monitor removal of any contaminated soil from site.

This spill was reassigned back to Sigona on March 1, 2000.

This site spill cleanup has been consolidated under Spill No. 9904995.

01/30/04 Reassigned from Rommel to Harrington.

**Map Identification Number 21** **EXXONMOBIL**  
 332 AMSTERDAM AVENUE

, NY

**Spill Number: 9904938**

**Close Date: 07/14/2003**  
 TT-Id: 520A-0098-736

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1138 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: GASOLINE STATION OR PBS FACILITY  
 Notifier Type: Local Agency  
 Caller Name: GRAHAM MANIGAT  
 DEC Investigator: SIGONA

Spiller: EXXONMOBIL  
 Notifier Name: VA HOSP  
 Caller Agency: DEP  
 Contact for more spill info: DR ROSENTHAL

Spiller Phone:  
 Notifier Phone: (212) 496-2100  
 Caller Phone: (718) 595-6777  
 Contact Person Phone: (212) 496-2100

Category: Known release which created a fire/explosion hazards (inside or outdoors), drinking water supply contamination, or significant releases to surface waters.  
 Class: Unknown RP – DEC Field Response – DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 07/26/1999 |                     | TANK FAILURE   | NO                      | NO                  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE          | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | AIR                  |
| UNKNOWN PETROLEUM | UNKNOWN        | 0                | GALLONS | 0                  | GALLONS |                      |

**Caller Remarks:**

STRONG PETROLEUM FUMES HAVE ENTERED HOSPITAL CAUSING SEVERAL DOCTORS TO BECOME ILL-POSSIBLY FROM ON GOING CONSTRUCTION WORK AT SAME LOCATION.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 22** **135 CENTRAL PARK W**  
 135 CENTRAL PK W

NYC, NY

**Spill Number: 9106670**

**Close Date: 02/10/2003**  
 TT-Id: 520A-0095-751

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (2)  
 Approximate distance from property: 1175 feet to the S

**ADDRESS CHANGE INFORMATION**

Revised street: 135 CENTRAL PARK WEST  
 Revised zip code: 10023

Source of Spill: PRIVATE DWELLING Spiller: Spiller Phone:  
 Notifier Type: Other Notifier Name: Notifier Phone:  
 Caller Name: MARK SALMANAC Caller Agency: ABC TANK Caller Phone: (718) 272-2800  
 DEC Investigator: TOMASELLO Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Unknown RP – DEC Field Response – DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 09/20/1991 |                     | TANK FAILURE   | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #6 FUEL OIL      | PETROLEUM      | 1000             | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

OIL LEAKED OUT FROM BOTTOM OF TANK, CONTAINED IN BASEMENT, SOME OIL IN SUMP. ABC TANK SENT CREW TO SHUT SUMP PUMP AND TO CLEAN UP.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 23** **OPERA APARTMENTS** **Spill Number: 9009666** **Close Date: 08/20/2007**  
 2166 BROADWAY NEW YORK CITY, NY TT-Id: 520A-0098-722

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1289 feet to the W

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: Spiller Phone:  
 Notifier Type: Citizen Notifier Name: Notifier Phone:  
 Caller Name: MARK SALAMACK Caller Agency: ABC TANK Caller Phone: (718) 272-2800  
 DEC Investigator: rvetani Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 12/04/1990       |                     | TANK FAILURE     | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #6 FUEL OIL      | PETROLEUM           | 200.00           | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

LEAK IN TANK, POWER WASHED AREA & USED SPEEDY DRY, # OF APTS INVOLVED,OIL IN BASEMENT, SHOVELED CONTAMINATED MATERIAL INTO DRUMS, NO DRAINS OR SUMPS AFFECTED.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was M TIBBE see 9708318 & 0008420.

8/20/07 – Raphael Ketani. This spill case involves the same site as the two that are listed above. Spill case #0008420 was closed by Mark Tibbe, but spill case #9708318 is still on going and active. Therefore, I am closing spill case #9009666 and referring it to the active case.

**Map Identification Number 24** **27 WEST 72ND ST/MANH**  
 27 WEST 72ND STREET

NEW YORK CITY, NY

**Spill Number: 9003522**

**Close Date: 01/19/2005**  
 TT-Id: 520A-0091-756

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1299 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Other  
 Caller Name: VINNIE LAVARY  
 DEC Investigator: JCGRATHW

Spiller: OLCOTT HOTEL  
 Notifier Name:  
 Caller Agency: ISLAND TANK  
 Contact for more spill info:

Spiller Phone: (212) 877-4200  
 Notifier Phone:  
 Caller Phone: (718) 967-9424  
 Contact Person Phone:

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 06/26/1990       |                     | TANK FAILURE     | YES                     |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | -1.00            | POUNDS                  | 0.00               | POUNDS              | GROUNDWATER          |

Caller Remarks:

WHILE CLEANING 10K TANK, HOLE WAS FOUND, OIL WAS DISCOVERED IN SUMP, SPILLER CLAIMS PLUME MAY BE LOCATED UNDERNEATH BLDG, TANK NEEDS TO BE REPAIRED.

DEC Investigator Remarks:

1/19/06 – Site visit. Met with Chief Engineer Robert Cicciari. We went to the basement of the building. This facility changed to gas heat approx. 2 years ago. Inspection of the boiler room and tank area found these areas are clean. No oil odor in areas, on floor or in sump. Took photos. Spill closed.

6/15/05 – Spill Lead\_DEC Field changed to Grathwol. No spill file.

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was M TIBBE

**Map Identification Number 25** **2130 BROADWAY/MANH** **NEW YORK CITY, NY** **Spill Number: 9009255** **Close Date: 11/29/1990**  
 2130 BROADWAY TT-Id: 520A-0098-721

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1343 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                        |                                        |                               |
|----------------------------------------|----------------------------------------|-------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: BEACON HOTEL                  | Spiller Phone: (212) 362-0025 |
| Notifier Type: Other                   | Notifier Name:                         | Notifier Phone:               |
| Caller Name: BOB DECK                  | Caller Agency: PETROLEUM TANK CLEANERS | Caller Phone: (718) 624-4842  |
| DEC Investigator: KSTANG               | Contact for more spill info:           | Contact Person Phone:         |

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 11/26/1990 | 11/29/1990          | TANK FAILURE   | UNKNOWN                 | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 300.00           | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

SPILLED OIL DISCOVERED IN VAULT, TRANSFERRED TO ANOTHER TANK,VAC TRUCKON SCENE, WILL CLEAN UP FREE PRODUCT & WILL APPLY SPEEDY DRY,PICK UP &DISPOSE.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TANG 11/29/90: DEC INVESTIGATED, OIL LEAKED OUT FROM BOTTOM OF THE VAULT, (2) 5K TANKS IN SEPARATE TANK ROOMS, SPILLED CLEANED UP.

**Map Identification Number 26** **BANCROFT OWNERS INC** **Spill Number: 0406187** **Close Date: 09/08/2004**  
 40 W 72ND STREET MANHATTAN, NY TT-Id: 520A-0095-273

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1507 feet to the SSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: GEORGE – BANCROFT OWNERS INC Spiller Phone: (212) 362-6100  
 Notifier Type: Responsible Party Notifier Name: GEORGE Notifier Phone: (212) 362-6100  
 Caller Name: STEPHEN KING Caller Agency: HESS CORPORATION Caller Phone: (908) 881-5389  
 DEC Investigator: TJDEMEO Contact for more spill info: GEORGE Contact Person Phone: (212) 362-6100

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 09/06/2004 |                     | TANK FAILURE   | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 2000             | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

Caller reports a leak from an 7500 gallon fuel oil tank in a tank room. It is contained. Caller is unsure if spill has stopped. Clean up will be done by Petroleum Tank Cleaners. Caller has estimated the spill amount.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was DEMEO Demeo reponded to the site and found water with a sheen of oil. Spill has been cleaned

**Map Identification Number 27**      **2109 BROADWAY**      **Spill Number: 9802677**      **Close Date: 11/25/2005**  
      2109 BROADWAY      MANHATTAN, NY      TT-Id: 520A-0095-754

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1700 feet to the WSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING      Spiller: MARC LIPPMAN – 2109 BROADWAY      Spiller Phone: (212) 799-6671  
 Notifier Type: Local Agency      Notifier Name:  
 Caller Name: ANTHONY HENRY      Caller Agency: NYC DEP      Notifier Phone:  
 DEC Investigator: RXMUSTIC      Contact for more spill info: MARC LIPPMAN      Caller Phone: (718) 595-4766  
 Contact Person Phone: (212) 799-6671

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | PBS # Involved | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|----------------|-------------------------|---------------------|
| 05/26/1998 |                     | TANK FAILURE   | 2-266329       | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

building under construction, old tank removed and contaminated soil encountered.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was M TIBBE Engelhardt responded:

Met with Joe Martino, foreman of building renovation being performed by RC Dolner Inc. (general contractor). Dolner is doing job for Great Atlantic & Pacific Tea Company [90 Delaware Ave, Paterson, NJ, 07503 – tel # (201) 505–3318] who is renting the building. The building manager is Marc Lippman [2101–2119 Broadway, NYC, NY – tel # (212) 799–6671]. Unknown owner.

Mr. Martino reported that they were doing excavation to install elevator shaft about 25 feet below grate when they uncovered an abandoned oil tank thought to have held no. 6 oil. They cut and removed tank and hired Unesco [tel # (201) 939–4000] to remove contaminated soil. Unesco foreman is Manuel Reinoso. Unesco is removing contaminated soil and placing in 1 yard containers and 55 gallon drums. Mr. Reinoso reported that either at the end of this week or next week the dispatcher for Unesco Anthony Moza will arrange to have a roll off delivered for transfer of the contaminated soil and disposal.

Observed excavation. Soil appeared to be contaminated with weathered fuel oil. Was very rich in color. Water was infiltrating the low points of the excavation. Drew sample in aerosol can cap and observed some oil droplets on water surface. Transferred from Engelhardt to Tibbe on 6/2/98.

**Map Identification Number 28**      **2109 BROADWAY**      **Spill Number: 9209388**      **Close Date: 11/12/1992**  
      2109 BROADWAY      MANHATTAN, NY      TT-Id: 520A–0095–756

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1700 feet to the WSW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                        |                                   |                              |
|----------------------------------------|-----------------------------------|------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller:                          | Spiller Phone:               |
| Notifier Type: Responsible Party       | Notifier Name:                    | Notifier Phone:              |
| Caller Name: HARVEY SCHUSSLER          | Caller Agency: ANSONIN ASSOCIATES | Caller Phone: (212) 799–6671 |
| DEC Investigator: KSTANG               | Contact for more spill info:      | Contact Person Phone:        |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 11/12/1992 | 11/12/1992          | TANK FAILURE   | UNKNOWN                 | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 50.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

COMPRESSION FITTING FAILED-OIL LEAKED TO SUB-BASEMENT-CONCR FLOOR CONTAINED-WILL CONTACT CONTRACTOR

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TANG

**Map Identification Number 29**      **CONDO 245 W.75TH ST**      **NEW YORK, NY**      **Spill Number: 9108119**      **Close Date: 12/25/1998**  
 245 W.75TH ST      TT-Id: 520A-0098-723

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1705 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
 Notifier Type: Local Agency  
 Caller Name: W HERNANDEZ  
 DEC Investigator: TOMASELLO

Spiller: CONDOMINIUM COMPLEX  
 Notifier Name:  
 Caller Agency: NYCDEP  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (718) 595-4652  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/30/1991 |                     | TANK FAILURE   | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled |        | Quantity Recovered |        | Resource(s) Affected |
|------------------|----------------|------------------|--------|--------------------|--------|----------------------|
|                  |                | Units            |        | Units              |        |                      |
| #2 FUEL OIL      | PETROLEUM      | -1.00            | POUNDS | 1900.00            | POUNDS | SOIL                 |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 30** **SPILL NUMBER 9913986**  
 37 WEST 87TH ST

**Spill Number: 9913986** **Close Date: 08/08/2003**  
 MANHATTAN, NY TT-Id: 520A-0098-787

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1775 feet to the NE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                        |                                      |
|-----------------------------------|----------------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: PETRO OIL                     | Spiller Phone:                       |
| Notifier Type: Responsible Party  | Notifier Name: MIKE ESPENBERG          | Notifier Phone:                      |
| Caller Name: MATTHEW GREVSTAD     | Caller Agency: PETRO OIL               | Caller Phone: (516) 686-2013         |
| DEC Investigator: SMSANGES        | Contact for more spill info: PETRO OIL | Contact Person Phone: (516) 686-2013 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/10/2000 |                     | TANK FAILURE   | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 5.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

tank overflow at above location. material contained at time of call. all material expected to be recovered. no call back requested.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SANGESLAND

**Map Identification Number 31** **APARTMENTS**  
 441 WEST END AV (80/81)

**Spill Number: 9708740** **Close Date: 04/27/2004**  
 MANHATTAN, NY TT-Id: 520A-0101-333

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1971 feet to the NW

ADDRESS CHANGE INFORMATION  
 Revised street: 441 WEST END AVENUE  
 Revised zip code: 10024

|                                        |                                          |                                      |
|----------------------------------------|------------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: MR FRIEDMAN – APARTMENTS        | Spiller Phone: (212) 724-0460        |
| Notifier Type: Responsible Party       | Notifier Name: MR FREIDMAN               | Notifier Phone: (212) 724-0460       |
| Caller Name: MR FREIDMAN               | Caller Agency: MANANGER FOR APTS         | Caller Phone: (212) 724-0460         |
| DEC Investigator: SMSANGES             | Contact for more spill info: MR FRIEDMAN | Contact Person Phone: (212) 724-0460 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | PBS # Involved | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|----------------|-------------------------|---------------------|
| 10/26/1997 |                     | TANK FAILURE   | 2-272868       | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #6 FUEL OIL      | PETROLEUM      | 200.00           | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

LEAK IN FUEL TANK CAUSED SPILL INTO CELLAR (CONCRETE FLOOR). EASTMAN OIL COMPANY ENROUTE FOR CLEAN UP.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SANGESLAND GROSS LEAK IN TANK. TANK OUT OF SERVICE. HEAVY FLOW OF #6 INTO BOILER ROOM. ADVISED MR. FRIEDMAN TO INVESTIGATE EXTENT OF PROBLEM. 10/04/2002 closed spill# 0001972, transferred this spill to Sangesland after speaking with Renee Lewis at AL Eastman. Eastman is currently cleaning #6 oil from the basement floor. The oil is apparently oozing back up through the floor, no file found on this site, owners never completed an investigation for this spill(MT)

Per secretary at Mr. Friedman's office, the building is owned by Mr. Friedman.

Contact: Mr. Issac Friedman 441 West End Ave – Apt 1C New York, NY 10024

10/8/2002 Sangesland sent a do Work letter to Mr. Friedman today with a deadline of Nov 8th to submit a Delineation Work Plan to the DEC.

12/23/2003 Sangesland sent another Do Work letter to Mr. Friedman with a deadline of Feb 25, 2004 to submit a Delineation Work Plan to the DEC.

2/26/2004 Property manager is now Leonard Wasner 212-706-0610 Sangesland explained that a series of soil borings will be required around the basement floor to determine if there is an oil contamination problem under the basement floor.

4/20/2004 Sangesland spoke with Anthony Lara of PTC. He was just at the site and the building owner has done a lot of

excavation on his own and Mr. Lara believes the digging is unsafe and structurally unstable. He recommends a DEC site visit ASAP to look at the area and to give DEC direction on what work is required.

4/21/2004 Sangesland met with Mr. Wasner at the site. One side of the former tank has been dug out down to bedrock and the building foundation wall. This was a major excavation and Mr. Wasner had a manifest for all of the soil which was removed. The area looked and smelled clean. There were a couple of spots of solid #6 oil that had layered between some rocks, but it appears that almost all of the oil contamination had been removed.

4/27/2004 Sangesland reviewed a submittal from Mr. Wasner concerning this site. A short narrative of the tank history and spill event, manifest & photos of the excavation.

Spill Closed

**Map Identification Number 32** **TZC** **Spill Number: 0501353** **Close Date: 10/11/2006**  
 45 WEST 88TH STREET MANHATTAN, NY TT-Id: 520A-0098-776

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2036 feet to the NE

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                                  |                                      |                                      |
|--------------------------------------------------|--------------------------------------|--------------------------------------|
| Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER | Spiller: RICHARD – TZC               | Spiller Phone: (917) 709-7145        |
| Notifier Type: Other                             | Notifier Name: DEENA AIELLO          | Notifier Phone: (718) 967-9424       |
| Caller Name: DEENA AIELLO                        | Caller Agency: IRA CONKLIN           | Caller Phone: (718) 967-9424         |
| DEC Investigator: HRPATEL                        | Contact for more spill info: RICHARD | Contact Person Phone: (917) 709-7145 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 05/03/2005       |                     | TANK FAILURE     | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 0                | GALLONS                 | 0                  | GALLONS             | GROUNDWATER          |

Caller Remarks:

FEW HOLES AND OIL UNDER BASEMENT FLOOR:

DEC Investigator Remarks:

Sent Contaminated Soil Ltr to:

Elizabeth Ronis 35 West 88th St NY, NY 10024

5/18/05 Tipple Updating/// The spill was initially called in at an incorrect address, the Database has been updated to reflect the actual release location at 45 West 88th Street. Letter to be sent to the updated address.

12/19/05 Feroze. Spill is transferred from Ketani to Feroze. 12/21/05 Feroze, A letter is sent Richard to inform DEC the present status of the site.

02/02/06. Feroze called Richard. She doesn't pickup the phone and a message is left for her. 02/23/06 Feroze called Ms. Richard and left a message for her. CSL is sent to :

MS. RICHARD TZC 45 West 88th Street NY, NY 10024

03/06/06 Feroze. CSL returned to DEC. 03/15/06. Spill is transferred from Feroze to Kumer Patel.

05/04/06–Hiralkumar Patel. spoke to operator at Ira Conklin. she will call back with more information. Received call from Vinny (Cell: 718–509–5900) from Island Tank. they removed tank from location. it is 550 gal AST on concrete pad. when they removed it, they found some holes at bottom of tank and oil stains on concrete pad. removed concrete and found little contamination underneath it. removed contaminated soil and took end point samples. Vinny will send me lab results and disposal manifest.

05/08/06–Hiralkumar Patel. Spoke to Vinny. he is waiting to get lab results from some other person. he got disposal manifest and will mail me those. 05/15/06–Hiralkumar Patel. Spoke to Vinny. he is going to mail all the documents today.

05/18/06–Hiralkumar Patel. Received tank closure report from Vinny. abstract of report: – removed 550 gal AST and system – tank was examined, cut open and then cleaned and removed oil and water mixture with vac/truck scraped and gas free interior of tank. – pits and holes were noted on the tank. – tank floor was broken and approx. four drums (two yards) of soil and fill material in an attempt to dig it clean and it was disposed of at an authorized PCS facility. – no groundwater or static surface water was encountered. – Martin Geochemistry, conducted soil sampling – six soil samples under cement floor – Martin Geochemistry found samples to be clean. – as a safety consideration the owner elected to backfill completion of the sampling activities – tank was found to be void of any liquids at time of removal

report is not consistent. report doesn't have end point lab results and site plan with sampling locations. at one point they said they removed oil/water with vac truck and on second page saying that tank was found to be void of any liquids. Spoke to Vinny and asked to send lab results & site plan with sampling locations.

06/06/06–Hiralkumar Patel. Left message for Vinny (cell phone number is out of service) at 718–967–9424. Left message at TZC.

06/09/06–Hiralkumar Patel. Left message for Vinny. Received call from Vinny's office. spoke to Malissa. she told me that Vinny will contact geologist and will find required documents.

07/05/06–Hiralkumar Patel. Left message for Vinny. Received call from Vinny. he is still waiting to get lab results from company who did sampling and has lab results. once Vinny gets it he will forward this result to the Department. as per Vinny, tank was

empty when they removed it.

08/16/06–Hiralkumar Patel. visited site. met Julie Marshall, current owner of building. she has bought this property in 2005. Ms. Marshall doesn't know anything about contaminated soil removal from site. spoke with Larry Barns, contractor of building. as per him, tank removal company has removed tank. asked Ms. Marshall and Mr. Barns to submit tank closure report with endpoint sample analyticals.

Julie Marshall 45 W 88th Street Manhattan, NY 10024 Ph. (212) 864–6706

Larry Barns Integkral Design and Construction LLC Ph. (914) 497–0543 FAX (212) 254–9382

(203) 732–2992

sent CSL to Ms. Marshall. letter faxed to Mr. Barns.

08/22/06–Hiralkumar Patel. received copy of report from Integkral Design and Construction. this report i have previously from vinny. but this report doesn't have lab analyticals as well as sample locations on site plan. send email to Mr. Barns (jlbsea@rcn.com) requesting such information.

09/27/06–Hiralkumar Patel. received fax from Vinny stating that they are waiting for lab analyticals. spoke with Allen at Island tank. as they don't have lab analyticals for previous samples, they took new five samples and will submit final report.

10/11/06–Hiralkumar Patel. received closure report from Vinny. five soil samples taken from sides and bottom of tank area. no contamination found in any samples.

based on available information, case closed. sent NFA letter to Ms. Marshall. letter faxed to Mr. Barns and to Mr. Lovari.

**Map Identification Number 33**



**52 RIVERSIDE DRIVE**  
52 RIVERSIDE DRIVE

MANHATTAN, NY

**Spill Number: 0009236**

**Close Date: 01/09/2006**

TT-Id: 520A-0091-162

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 2291 feet to the WNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
Notifier Type: Local Agency  
Caller Name: RONALD MARKEY  
DEC Investigator: rmpiper

Spiller: MID BORO MANAGEMENT – 52 RIVERSIDE DRIVE  
Notifier Name: PETER JEB  
Caller Agency: AMERICAN HI-TECH  
Contact for more spill info: RONALD MARKEY

Spiller Phone: (212) 877–2525  
Notifier Phone: (732) 389–8181  
Caller Phone: (732) 389–8181  
Contact Person Phone: (732) 389–8181

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 11/10/2000       |                     | TANK FAILURE     | YES                     |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #6 FUEL OIL      | PETROLEUM           | 100.00           | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

APARTMENT DWELLING – CO–OP – MID BORO REPRESENT SAL CANTENELLI

DEC Investigator Remarks:

1/18/2004 Spill transferred from Sigona to Sawyer.

100 gallon spill of #6 oil into the basement.

Sangesland spoke with Michael Jaffa who was at a financial Closing on the building. Property manager is AJ Rexeppi of Century Management – 212–560–6400

Mr. Rexeppi will be calling Sawyer to determine what work is needed to close out this spill case.

1/19/04 – Sawyer – Talked to Michael of Century Management and explained needed information needed close out spill. He will try to provide information in a timely manner.

12/27/05– DEC Piper left message w/ AJ of Century requesting callback and info.

1/9/06– DEC Piper reviewed summary report dated 1/30/2001 and analytical from GAC Environmental. As per report, and analytical, the site has been cleaned up. NFA. See E–Docs if warranted.

Map Identification Number 34



205 W 88TH ST/MANHATTAN  
205 WEST 88TH STREET

NEW YORK CITY, NY

Spill Number: 9007713

Close Date: 01/02/1991  
TT–Id: 520A–0091–777

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 2308 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: RUCKMAN MGNT Spiller Phone: (212) 799-2812  
 Notifier Type: Other Notifier Name: A L EASTMOND Notifier Phone:  
 Caller Name: TONY SIMONE Caller Agency: A L EASTMOND Caller Phone: (212) 378-3000  
 DEC Investigator: O'DOWD Contact for more spill info: Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/12/1990 | 01/02/1991          | TANK FAILURE   | UNKNOWN                 |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 1200             | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

OWNER OF TANK (4K) NOTIFIED A L EASTMOND, SERVICEMAN DISCOVERED  
 POROUS BOTTOM, BASEMENT HAS SUMP & DRAIN, BASEMENT PUMPED & CLEANED, ALL CONTAMINATED MATERIALS REMOVED.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

**The following DEC Investigator Remarks were available prior to 1/1/2002:**

01/02/90: TANK WILL BE REPAIRED BY A L EASTMOND.  
 10/10/95: This is additional information about material spilled from the translation of the old spill file: WATER/OIL EMULSION.

**Map Identification Number 35** **OCONNOR HOME** **Spill Number: 0510860** **Close Date: 04/20/2006**  
 264 WEST 71 STREET NEW YORK, NY TT-Id: 520A-0095-748

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2439 feet to the WSW

ADDRESS CHANGE INFORMATION  
 Revised street: 264 W 71ST ST  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: ROBERT OCONNOR - OCONNOR HOME Spiller Phone: (212) 877-1894  
 Notifier Type: Other Notifier Name: PHILIP CAPUTO Notifier Phone: (718) 599-5100  
 Caller Name: PHILIP CAPUTO Caller Agency: ECONOMY FUEL Caller Phone: (718) 599-5100  
 DEC Investigator: SFRAHMAN Contact for more spill info: ROBERT OCONNOR Contact Person Phone: (212) 877-1894

|                  |                                                                                                                                                                             |                |                         |         |                     |         |                      |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| Category:        | Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters. |                |                         |         |                     |         |                      |
| Class:           | Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency                                                               |                |                         |         |                     |         |                      |
| Spill Date       | Date Cleanup Ceased                                                                                                                                                         | Cause of Spill | Meets Cleanup Standards |         | Penalty Recommended |         |                      |
| 12/16/2005       |                                                                                                                                                                             | TANK FAILURE   | NO                      |         | NO                  |         |                      |
| Material Spilled |                                                                                                                                                                             | Material Class | Quantity Spilled        | Units   | Quantity Recovered  | Units   | Resource(s) Affected |
| #2 FUEL OIL      |                                                                                                                                                                             | PETROLEUM      | 50.00                   | GALLONS | 0.00                | GALLONS | SOIL                 |

Caller Remarks:

BOTTOM OF TANK RUPTURED; IS COTAINED AND IS CLEANING UP AT THIS TIME

DEC Investigator Remarks:

Sangesland spoke to Philip Caputo of Economy Fuel. He said this is the first time he has delivered to this address. 2 hours after delivery, the owner called to say the house smelled of oil. Oil company sent a crew to the house to clean up.

Sangesland spoke to Mr. O'Connor (homeowner). He said the spill is about 50 gallons from a hole in the bottom of the tank. The basement is unfinished, but unknown if any drains were impacted. 01/30/06 Sharif// I spoke with David Oconnor,(212)877-1894, son of R.Oconnor and he informed me Economy Fuel cleaned up the spill and fixed the tank system.I suggested him to send DEC relevant documents. 03/21/06 Sharif Rahman- Clean up letter was sent to Robert O'connor 264 W. 71st Street New York, NY 10023 04/05/06 Sharif Rahman- Mr. Franky from Economy Fuel,(718)599-5100 called to know what needs to be done to close out the spill case. I told him to send DEC a report stating the brief clean up activities with waste disposal manifest, photographs and soil sampling result if oil spill had seeped to the soil. He said he would do that. 04/20/06 Sharif Rahman-Rec'd invoice of clean up, manifest and brief description of clean up job. No soil/sewer was impacted. NFA required.

Map Identification Number 36



TRANSFORMER VAULT #5535

210 W 89TH ST

MANHATTAN, NY

Spill Number: 9812557

Close Date: 02/01/1999

TT-Id: 520A-0092-571

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 2441 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: UNK Spiller Phone:  
 Notifier Type: Affected Persons Notifier Name: STEVE ROMERO Notifier Phone: (212) 580-6763  
 Caller Name: STEVE ROMERO Caller Agency: CON EDISON Caller Phone: (212) 580-6763  
 DEC Investigator: TOMASELLO Contact for more spill info: STEVE ROMERO Contact Person Phone: (212) 580-6763

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/11/1999 |                     | TANK FAILURE   | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #2 FUEL OIL      | PETROLEUM      | 20.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

CONTRACTOR SOUTH OF VAULT AREA IS REPLACING FUEL TANKS-UNK IF THIS IS RELATED. CON ED# NOT AVAIL YET.

DEC Investigator Remarks:

1/12/99: ERT Perez, Con Ed – tank repair in apartment building – oil appears to be coming in through walls of vault. Sump pump in vault pumped out to sewer. DEP notified. Site has possible monitoring wells. Transformer will have to be de-energized and removed prior to cleaning. Sump pump disconnected. Lab results PCB <1 ppm, fingerprint mixture of light and heavy fuel oil. Spill transferred to Tomasello for follow up. (JHO)

**Map Identification Number 37** **APT BUILDING**  
 210 WEST 89TH ST

**Spill Number: 9810768** **Close Date: 07/08/2003**  
 MANHATTAN, NY TT-Id: 520A-0101-138

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2441 feet to the N

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
 Notifier Type: Other  
 Caller Name: JOE OSTROWSKI  
 DEC Investigator: SMSANGES

Spiller: JIM GALANIS – APT BUILDING  
 Notifier Name: JOE OSTROWSKI  
 Caller Agency: A.L. EASTMAN & SONS, INC  
 Contact for more spill info: JIM GALANIS

Spiller Phone: (212) 582-4000 ext. 2  
 Notifier Phone: (718) 378-3000  
 Caller Phone: (718) 378-3000  
 Contact Person Phone: (212) 582-4000 ext. 2

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |         | Penalty Recommended |         |                      |
|------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 11/24/1998       |                     | TANK FAILURE   | NO                      |         | NO                  |         |                      |
| Material Spilled |                     | Material Class | Quantity Spilled        | Units   | Quantity Recovered  | Units   | Resource(s) Affected |
| #6 FUEL OIL      |                     | PETROLEUM      | 5000                    | GALLONS | 0                   | GALLONS | SOIL                 |

Caller Remarks:

caller received a call stating that apt building lost 5000 gals over the weekend tank was opened and cleaned and found that head of tank rotted

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SANGESLAND 1/2/2002 – Sangesland spoke with F&N about the site.

F&N installed 5 wells in the sidewalk around the tank of a #6 oil spill. Well # 1,2,5 are hooked into a Floating Recovery System. Installed about 5 years ago and was very effective at pulling out lots of free product in the begining. Now the issue is remediation of saturated soil in the areas away from the recovery wells. #6 oil does not travel freely in soil and the existing system will not address the area more than three feet from the wells.

Whoever takes over operation of this project will need to develop a remediation system which addresses this suspended oil.

2/3/2003 Sangesland visited site with RND Services & Property Manager. Site has been excavated and the existing tank has been cut up. 90% of the old tank has been removed along with a large amount of contaminated soil. According to RND, the hole has been dug down to bedrock and as wide as possible.

Sangesland requested a closure report with end point samples, photos and a write up describing the small residual contamination left at the site.

7/8/2003 Sangesland reviewed a report by RND dated January 2003, but submitted to the DEC on July 7, 2003. This report documented all of the work done to excavate the old tank along with 156 tons of contaminated soil. Due to the location of the the Con Ed box and the adjacent street, additional digging was not possible. The end result was a reasonably clean hole with some minor SVOC hits on the street side wall. The excavation went down to the bedrock under the tank and right up against the building foundation.

No additional work will be required at this site.

Spill Closed – Austin – 8/19/09 – See also spill # 0200291, et. al. Con Ed vault impacted by this spill – end

**Map Identification Number 38** **SPILL NUMBER 9911904** **Spill Number: 9911904** **Close Date: 07/07/2000**  
 2 WEST 90TH ST MANHATTAN, NY TT-Id: 520A-0098-785

MAP LOCATION INFORMATION ADDRESS CHANGE INFORMATION  
 Site location mapped by: PARCEL MAPPING (1) Revised street: NO CHANGE  
 Approximate distance from property: 2449 feet to the NE Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: CAROLYN GREENBERG Spiller Phone: (212) 877-8500  
 Notifier Type: Other Notifier Name: MATTHEW STOCK Notifier Phone: (212) 875-9506  
 Caller Name: MATTHEW STOCK Caller Agency: GAC ENVIRONMENTAL Caller Phone: (212) 875-9506  
 DEC Investigator: SMSANGES Contact for more spill info: CAROLYN GREENBERG Contact Person Phone: (212) 877-8500 ext. 2

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 09/01/1999       |                     | TANK FAILURE     | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 0                | GALLONS                 | 0                  | GALLONS             | SOIL                 |

Caller Remarks:  
 CALLER STATES THERE IS AN OLD TANK ON SITE AND PRELIMINARY INVESTIGATION REVEALS TANK MAY BE LEAKING

DEC Investigator Remarks:  
 Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SANGESLAND 1/13/2000 Sangesland spoke with Matt Stock (GAC Environmental 212-875-9506) He said the problem was in the basement of a small co-op building. Resident of basement unit complained of oil smell. Oil tank in rear of building was replaced in 1998(?) with a new tank. Investigation of smell was towards the front of the building. Plywood floor was pulled up to find oil staining on the bare dirt (no cement floor). Further investigation found an abandoned oil tank (approx 500 gal) located under the front sidewalk. Leak probably came from there.  
 GAC plans on pulling up the plywood floor in the basement, track it back to the source, scope out the size of the problem and then propose a clean up procedure. At this time the tenent of the apartment is living in a hotel.

Sangesland plans on visiting the site on 1/14 at 9 AM.

1/14/2000 Sangesland went to the site and confirmed info above. Matt Stock will work with Carolyn (managing agent) to open up tank wall area in outside alley area. Also possible opening in basement apartment.

1/20/2000 – Carolyn (managing agent) called and asked Sangesland to call insurance company to brief them on site problem. Contact is Alex Seaman at SRW – 516–496–7600. Mr. Seaman was briefed and will look into environmental contractors.

2/18/2000 Carolyn is no longer working at the managing agent. New contact for this project is Joe Migarth (Spelling???)

4/17/2000 Excavation investigation indicates 2 small holes were found in the sidewalk fill pipe. This could be the source of the problem found in the basement apartment.

4/17/2000 Sangesland went to the site and saw the excavation of the basement area. Matt Stock of GAC was running the environmental cleanup of the site. Sangesland, Mr. Stock and various members of the co-op board, resident & managing agent were present. Based on this site visit, the following steps were outlined to solve the problem:

1) The excavated material has been removed from the site and properly disposed of. 2) Pour Biorem into all excavation openings (basement, electric meter room and street excavation)– This material will biologically eat any residual petroleum which was not removed by excavation. 3) Coat all basement edges with epoxy– This will help prevent the movement of any vapors back into the basement area. 4) Install a layer of pea gravel in the open area below the basement floor level. 5) Prior to pouring a new basement floor cement slab, install a passive venting system to remove any residual petroleum vapors from beneath the basement slab. This system will consist of a network of 3 inch slotted PVC piping under the basement slab in the pea gravel layer. The end of this pipe will extend over the top of the interior footing, through the basement wall and out into the exterior vault area. \*\*\*\* Note\*\*\*\*\* If a problem comes back in the future, a slow speed blower can be attached to this venting system to suck out any vapor buildup in the area under the slab floor. 6) Above the pea gravel a layer of 30 mil plastic will be laid out to offer additional vapor blockage. 7) Above this plastic, a new concrete floor slab will be poured which will be painted with epoxy paint. 8) All openings, cracks and spaces in the floor will be filled and coated with epoxy to restrict future vapor flow.

Matt Stock wrote up these notes and submitted them to the DEC in a letter dated 4/28/2000.

7/7/2000 Matt Stock submitted a letter dated 7/5/2000 in which he said all of the work outlined above had been completed.

Spill Closed out 7/7/2000

**Map Identification Number 39**      **240 WEST END AVE**  
      240 WEST END AVE

MANHATTAN, NY

**Spill Number: 9515030**

**Close Date: 02/08/2005**  
 TT-Id: 520A-0092-296

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2498 feet to the WSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: 10023

|                                        |                                        |                                      |
|----------------------------------------|----------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: FRANK – ACE ATLAS             | Spiller Phone: (718) 497-3003        |
| Notifier Type: Other                   | Notifier Name: FRANK                   | Notifier Phone: (718) 497-3003       |
| Caller Name: BOB DECK                  | Caller Agency: PETROLEUM TANK CLEANERS | Caller Phone: (718) 624-4842         |
| DEC Investigator: RWAUSTIN             | Contact for more spill info: FRANK     | Contact Person Phone: (718) 497-3003 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Unable or Unwilling RP – DEC Field Response – DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/22/1996 |                     | TANK FAILURE   | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 50.00            | GALLONS | 50.00              | GALLONS | SOIL                 |

Caller Remarks:

tank was leaking – tank has been emptied and spill cleaned up

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was AUSTIN 3/23/04 – AUSTIN – ORIG. ASSIGNED TO ENGELHARDT – END

2/8/05 – Austin – 9 year old surf. spill assigned to prior staff member, no further info – closed – end

**Map Identification Number 40**      **PRIVATE RESIDENCE**  
      240 WEST END AVE

NEW YORK, NY

**Spill Number: 0412040**

**Close Date: 10/26/2005**  
 TT-Id: 520A-0091-585

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2498 feet to the WSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: 10023

|                                   |                                           |                                      |
|-----------------------------------|-------------------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: DIANA PARKER – PRIVATE RESIDENCE | Spiller Phone: (718) 624-4842        |
| Notifier Type: Other              | Notifier Name: DIANA PARKER               | Notifier Phone: (718) 624-4842       |
| Caller Name: DIANA PARKER         | Caller Agency: PETROLEUM TANK CLEANERS    | Caller Phone: (718) 624-4842         |
| DEC Investigator: SMSANGES        | Contact for more spill info: DIANA PARKER | Contact Person Phone: (718) 624-4842 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/11/2005 |                     | TANK FAILURE   | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #6 FUEL OIL      | PETROLEUM      | 30.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

TANK RUPTURED AT ABOVE LOCATION AND PETRO. TANK CLEANERS ENROUTE: IN BASEMENT

DEC Investigator Remarks:

2/11/05 MT/// 10,000 gal #6 FO tank sprung a leak, PTC responding with 2 vac trucks and a spills van to the scene. Plans to clean floor, empty leaking tank, install temporary tanks today.

10/26/2005 Sangesland received a letter from Petroleum Tank Cleaners stating that the initial spill was 30-50 gallons of #6 oil from the tank into the tank room floor. The area was cleaned and manifested.

The tank was removed and eventually replaced. PTC tried to drill a hole through the cement floor of the tank room to determine if the soil underneath was impacted. After 14 inches of cement, the drilling was stopped.

Spill Closed.

**Map Identification Number 41**  
 **1995 BROADWAY**  
 1995 BROADWAY

MANHATTAN, NY

**Spill Number: 0105791**

**Close Date: 09/12/2006**  
 TT-Id: 520A-0095-259

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2625 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                        |                               |                              |
|----------------------------------------|-------------------------------|------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: UNKNOWN              | Spiller Phone:               |
| Notifier Type: Fire Department         | Notifier Name:                | Notifier Phone:              |
| Caller Name: DISPATCHER 457            | Caller Agency: MANHATTAN FIRE | Caller Phone: (212) 570-4300 |
| DEC Investigator: qxabidi              | Contact for more spill info:  | Contact Person Phone:        |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/29/2001 |                     | TANK FAILURE   | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                   |                | Units            |         | Units              |         |                      |
| UNKNOWN PETROLEUM | PETROLEUM      | 150.00           | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

tank is leaking in the basement of a commercial bldg – notification only

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIPPLE 9/23/03 TIPPLE SENT DOCUMENTATION REQUEST

10/10/03 RECIEVED BILLS FOR WORK, NO MANIFESTS, ANALYTICALS, PHOTOS ETC. IN FILE... NEXT TO OLLIES.

10/20/2004 Sangesland requested a Tank Test Cross Ref Spill #0407958

08/31/06: This spill is transferred from Mr. Koon Tang to Q.Abidi. Called Dispatcher 457 (Manhattan fire) at (212)570-4300 could not get him. -QA

Robert Trombino (property manager) Cammeby's Management Co LLC 45 Broadway 25th Floor New York, NY 10006 Ph. (212) 509-9797 Ext.3795 FAX (212) 509-5229

Miro Kormanik (super) Cammeby's Management Co LLC Ph. (212) 362-1159 FAX (212) 362-1491

09/12/06: According to the ABC Tank Repair Tank passed the test. Soil samples and water samples are cleaned. Based on the information provided by ABC Tank Cleaners DEC staff closed the spill. -QA



**CLOSED STATUS TANK TEST FAILURES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS**

PLEASE NOTE: \* Compass directions can vary substantially for sites located very close to the subject property address.

**Map Identification Number 42** **BLDG** **Spill Number: 9903694** **Close Date: 12/24/1999**  
 102 WEST 79TH ST MANHATTAN, NY TT-Id: 520A-0092-626

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 165 feet to the W\*

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: WILLIAM SONN – BLDG Spiller Phone: (212) 923-2121  
 Notifier Type: Tank Tester Notifier Name: JIM LEDDY Notifier Phone: (516) 321-4670  
 Caller Name: JIM LEDDY Caller Agency: PROTEST ENTERPRISES Caller Phone: (516) 321-4670  
 DEC Investigator: MCTIBBE Contact for more spill info: WILLIAM SONN Contact Person Phone: (212) 923-2121

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 06/30/1999 |                     | TANK TEST FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

**TANK TEST INFORMATION**

| Tank Number | Tank Size | Tank Test Method        | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 1           | 2000      | Horner EZ Check I or II | 0.00      | UNKNOWN               |

Caller Remarks:



**Map Identification Number 44** **20 PRECINCT NYPD –DDC**  
 120 WEST 82ND STREET

MANHATTAN, NY **Spill Number: 9614401**

**Close Date: 10/31/2003**  
 TT-Id: 520A-0098-763

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 416 feet to the N

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
 Notifier Type: Tank Tester  
 Caller Name: ROBERT KLESHEFSKY  
 DEC Investigator: JMKRIMGO

Spiller: ROBERT KLESHEFSKY – 20TH PRECINCT NYPD  
 Notifier Name: ROBERT KLESHEFSKY  
 Caller Agency: DRY AS A BONE INC.  
 Contact for more spill info: ROBERT KLESHEFSKY

Spiller Phone: (516) 678-5115  
 Notifier Phone: (516) 678-5115  
 Caller Phone: (516) 678-5115  
 Contact Person Phone: (516) 678-5115

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors),  
 contamination of drinking water supplies, or significant release to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 03/12/1997 |                     | TANK TEST FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIESEL           | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

**TANK TEST INFORMATION**

| Tank Number | Tank Size | Tank Test Method        | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 001         | 1000      | Horner EZ Check I or II | 0.00      | FAIL                  |

**Caller Remarks:**

CALLER DID TEST – GROSS FAILURE – UNK IF ANY PRODUCT LEAKED. SEE SPILL # 9512927.

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was KRIMGOLD

6-6-2005 Reviewed Request for Spill Closure issued by URS in January 2005. NFA letter was issued. AZ

**Map Identification Number 45**

**20 PRECINCT NYPD -DDC**

**Spill Number: 9512346**

**Close Date: 06/06/2005**



120 WEST 82ND STREET

MANHATTAN, NY

TT-Id: 520A-0098-761

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 416 feet to the N

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
 Notifier Type: Tank Tester  
 Caller Name: ROBERT SKEFSKLY  
 DEC Investigator: ADZHITOM

Spiller: DESK SSGT - 20TH PRECINCT  
 Notifier Name: ROBERT SKEFSKLY  
 Caller Agency: DRY AS A BONE INC  
 Contact for more spill info: DESK SSGT

Spiller Phone: (516) 678-5115  
 Notifier Phone: (516) 678-5115  
 Caller Phone: (516) 678-5115  
 Contact Person Phone: (516) 678-5115

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.  
 Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 01/03/1996 |                     | TANK TEST FAILURE | NO                      | NO                  |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

**TANK TEST INFORMATION**

| Tank Number | Tank Size | Tank Test Method        | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 001-004     | 550       | Horner EZ Check I or II | 0.00      | UNKNOWN               |

**Caller Remarks:**

gross failure - 550 gasoline tank. Also see spill #s 9614401 and 9512927.

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was ZHITOMIRSKY 1/17/96 Contaminated soil found in excavation. Stockpiled on site.

1/25/96 Product floating on water in gasoline tank removal excavation. May be fuel oil from adjacent active tank. Will test tank.

TRANSFERRED FROM Y.KRIMGOLD.The site is being remediated under NYCDDC COntent Order. It was managed by Y. Krimgold and then transferred to A. Zhitomirsky.

Department received and reviewed a Quarterly Status Report (June-September 2004)from the City's contractor. The site has groundwater contamination plume. Bioremediation technology (Permeox Plus injection) was applied at this site to treat

groundwater. MTBE was the only contaminant detected at the site. MTBE concentrations are decreasing. Consultants will perform another round of groundwater sampling and if groundwater criteria is not exceeded they will request a spill closure. The report was reviewed and approved by the staff. DEC recommended that if contamination persists in MW-7, currently the only well at the site exhibiting contamination, this well should be over-drilled and reinstalled. (A. Zhitomirsky)3/2005

6-6-2005 Reviewed Request for Spill Closure issued by URS in January 2005. According to the report contaminant concentrations in all existing monitoring wells at the site have been below NYSDEC Criteria for two consecutive sampling events. Spill was closed and NFA letter was issued. AZ

**Map Identification Number 46** **150 WEST 82 STREET REALTY ASSOC, LLC** **Spill Number: 0408295** **Close Date: 09/14/2007**  
 150 WEST 82ND ST MANHATTAN, NY TT-Id: 520A-0098-756

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 702 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                        |                                         |                                             |
|----------------------------------------|-----------------------------------------|---------------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: JOE JIVERA                     | Spiller Phone: (212) 977-0000 ext. 2        |
| Notifier Type: Tank Tester             | Notifier Name: PHILIP FAZON             | Notifier Phone: (516) 375-5890              |
| Caller Name: PHILIP FAZON              | Caller Agency: A-1 CROWN LEAK           | Caller Phone: (516) 375-5890                |
| DEC Investigator: jamaison             | Contact for more spill info: JOE JIVERA | Contact Person Phone: (212) 977-0000 ext. 2 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 10/27/2004 |                     | TANK TEST FAILURE | NO                      | NO                  |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

**TANK TEST INFORMATION**

| Tank Number | Tank Size | Tank Test Method        | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 1           | 4000      | Horner EZ Check I or II | 0.00      | UNKNOWN               |

Caller Remarks:

PBS No: 2-084271

DEC Investigator Remarks:

2/25/05. Tank on the basement floor, but completely covered with concrete failed the tightness test. Concrete encasement was removed and tank found to be leaking. Test pit holes was advanced through the concrete floor under the tank and were quickly filled with a mixture of oil and water. About 4–5 of sand and gravel under concrete floor followed by the bedrock. An investigation work plan will be submitted from a consultant.

10/28/05– Spill Case is transferred from J.Krimgold to I. Islam.

7/27/06: DEC case lead transferred from I. Islam to J.A. Maisonave. – JAM

9/12/07 PBS # 2–084271. Called and left a message with the property owner (Mourice Mann Phone #:212–977–0000). He should call me back by Mon 9/17. Follow–up investigation is necessary. – JAM

9/14/07 Received a call from Janet Sameka at Mann Realty (phone # 212–977–0000 x 231). She said that spill number 0409941 was closed and NFA was issued by Patel Haralkumar. I spoke with Kumar and he said the spill was cleaned up and soil samples were returned non–detect. There is only one tank at the site so there are duplicate spill #'s for this incident.

This spill case will be closed. Refer to spill 0409941. – JAM

**Map Identification Number 47** **WEST 83RD ST REALTY CORP** **Spill Number: 9906666** **Close Date: 08/07/2005**  
 146 WEST 83RD ST MANHATTAN, NY TT–Id: 520A–0098–764

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 792 feet to the N

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                                  |                                          |                                      |
|--------------------------------------------------|------------------------------------------|--------------------------------------|
| Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER | Spiller: JOHN – WEST 83RD ST REALTY CORP | Spiller Phone: (718) 729–4368        |
| Notifier Type: Tank Tester                       | Notifier Name: EMPLOYEE                  | Notifier Phone:                      |
| Caller Name: THOMAS LEDDY                        | Caller Agency: PROTEST ENTERPRISES       | Caller Phone: (516) 321–4670         |
| DEC Investigator: ADEBONG                        | Contact for more spill info: JOHN        | Contact Person Phone: (718) 729–4368 |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 09/03/1999 |                     | TANK TEST FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #4 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method        | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 1           | 5000      | Horner EZ Check I or II | 0.00      | FAIL                  |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SANGESLAND

7/21/05: A call was placed to the facility, facility representative requested for more information, a faxed copy of the spill report was sent to the facility.

A tank test result was mailed to the Department, a review of the report indicated that they was no oil spill and as such no need for remediation.

Map Identification Number 48

ABOVE GROUND TANK TTF

Spill Number: 1216531

Close Date: 08/01/2013



172 WEST 79TH

NYC, NY

TT-Id: 520A-0286-950

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 865 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: 172 W 79TH ST  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: SMSANGES

Spiller: UNKNOWN  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: TRACY

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (212) 877-8500 ext. 2

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 03/19/2013 |                     | TANK TEST FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #6 FUEL OIL      | PETROLEUM      | 0                | UNKNOWN | 0                  | UNKNOWN |                      |

Caller Remarks:

4000g tank

DEC Investigator Remarks:

3/27/13 AFrischeisen intern TTF letter sent.

8/1/2013 Sangesland reviewed a letter dated June 14, 2013 from Donna at ABC Tank (718-272-2800). Letter says 5,000 gal AST failed the test because of a problem with lines running thru a poorly sealed manway. Manway was replaced and new suction & return lines were connected and the tank/system passed a retest on 5/1/2013. They also said that no contamination was found during any of this work. Spill closed.

**Map Identification Number 49**      **APT BLDG**      **Spill Number: 0902145**      **Close Date: 12/04/2012**  
      150 WEST 84TH ST      MANHATTAN, NY      TT-Id: 520A-0229-407

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1017 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                          |                                      |
|-----------------------------------|------------------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: PAT HARPER – APT BLDG           | Spiller Phone:                       |
| Notifier Type: Tank Tester        | Notifier Name:                           | Notifier Phone:                      |
| Caller Name:                      | Caller Agency:                           | Caller Phone:                        |
| DEC Investigator: SMSANGES        | Contact for more spill info: PHIL FRAZIN | Contact Person Phone: (516) 375-5890 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 05/22/2009       |                     | TANK TEST FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 0                 | GALLONS                 | 0                  | GALLONS             |                      |

Caller Remarks:

TANK TEST FAILURE ON A 1500 GALLON ABOVE GROUND TANK. UNK IF THERE IS A LEAK.

**DEC Investigator Remarks:**

05/22/09–Vought–Duty desk officer. Spill assigned to DEC Krimgold as tank test failure of PBS Site (See PBS#2–234222). Vought called Phil Fazin (516) 375–5890 and tank is covered in concrete. Anthony Lara from Riteway will remove concrete and tank did not hold pressure and odors were present. Fazin unsure if tank is leaking as in contact with concrete. Vought called and spoke to Anthony Lara from Riteway (917–709–3317) who had crew onsite beginning to remove concrete vault around AST. Lara noted that failure was dry leak and that updated PBS registraton would be sent in as owners contact info had changed. As per Lara, TTF letter should be sent to:

Phancz Realty P.O. Box 931 Planetarium Station New York, NY 10024

Vought also spoke with DEC Krimgold who required that no additional deliveries by performed until tank is repaired. Vought sent out TTF letter with one month due date and additional requirements of submission of updated PBS registration as well as no new deliveries until tank is repaired. Vought received callback from Lara who was onsite and was removing oil from tank so that metal weld could be performed.

08/13/12 – LZ As Randy Austin requested, the spill has been reassigned to Tim DeMeo.

12/4/2012 Sangesland reviewed a letter and tank test passing from RiteWay. A new metal patch was welded onto the tank back in 2009 and the tank was retested and passed. See letter and tank test in eDocs.

**Map Identification Number 50**



**COMMERCIAL BUILDING**

200 W. 78TH ST

MANHATTAN, NY

**Spill Number: 1114440**

**Close Date: 04/20/2012**

TT-Id: 520A–0271–497

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1021 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Other

Caller Name:

DEC Investigator: HRPATEL

Spiller: MORGAN CONDOS

Notifier Name:

Caller Agency:

Contact for more spill info: MORGAN CONDOS–CAROLINE

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: 212–362–5227

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 03/28/2012       |                     | TANK TEST FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 0                 | UNKNOWN                 | 0                  | UNKNOWN             |                      |

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Caller Remarks:

TTF

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DEC Investigator Remarks:

03/28/12–Hiralkumar Patel. alternate address: 368–378 Amsterdam Ave no other spills found. PBS #: 2–310395. as per PBS record, the site has one 2,000 gal #2 oil AST in contact with soil. tank installed in Jan. 1985.

4:34 PM:– left message for Chris at PTC.

03/29/12–Hiralkumar Patel. 3:27 PM:– spoke with Ray at PTC. he mentioned that they cleaned the aboveground tank (in vault) on 02/14/12. no sign of leak found around the vault. during tank test, they found dry leak. owner has been informed. 3:34 PM:– left message for Carolyn. 4:30 PM:– received call from Carolyn. she mentioned that the building is self–managed by its occupants and she represents board of managers. asked her to conduct an isolation test to find out leaking part. she will talk to PTC.

The Morgan Condominium

\*\*property owner\*\* 200 West 78th Street New York, NY 10024 Attn. Board of Manager

Carolyn Law

\*\*contact person at condo\*\* Ph. (212) 362–5227 email: themorgancondominium@gmail.com

04/02/12–Hiralkumar Patel. 10:43 AM:– spoke with Ms. Law. she mentioned that PTC crew is at the site conducting isolation test. PTC will call back once gets the result. 2:53 PM:– received message from Ms. Law. she mentioned that tank passed the tightness test. 4:48 PM:– spoke with Ray at PTC. he confirmed that fill/supply/return lines and tank only passed the isolation test and they found problem in vent line. he is submitting proposal for vent line replacement. 4:49 PM:– spoke with Ms. Law and informed her that the department requires tightness testing of the entire tank system, after necessary repair on vent line. she will submit results, once available.

04/05/12–Hiralkumar Patel. 2:47 PM:– received message from Ms. Law. she mentioned that tank system passed the test after fixing vent line.

04/06/12–Hiralkumar Patel. 10:52 AM:– received message from Ray. they replaced the vent line and retested the tank system and it passed.

04/10/12–Hiralkumar Patel. 3:21 PM:– spoke with Ms. Law and asked her to submit tank test result and letter explaining cause of initial failure.

04/18/12–Hiralkumar Patel. 4:24 PM:– received email from Marisol from PTC including tank test results. documents are not fully scanned. also, email does not include a report regarding cause of failure and summar of work done.

04/19/12–Hiralkumar Patel. 12:08 PM:– sent email to Marisol and asked to send tank test results again. also asked to submit a detailed report including cause of tank system failure and summary of work performed. email copied to Ms. Law.

04/20/12–Hiralkumar Patel. 10:43 AM:– received email from Ray from PTC including closure report.

based on available information, case closed. 10:57 AM:– sent email to Ms. Law and informed her that the case is closed. email copied to PTC.

**Map Identification Number 51** **APARTMENT BUILDING** **Spill Number: 1104682** **Close Date: 09/20/2011**  
 202 WEST 78TH ST NY CITY, NY TT-Id: 520A-0265-914  
 202 WEST 78 ST TENANTS CORP.

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1055 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: CHRISTOPHER QUINTANA – 202 WEST 78 STREET TENANTS  
 Notifier Type: Other Notifier Name: Spiller Phone:  
 Caller Name: Caller Agency: Notifier Phone:  
 DEC Investigator: RVKETANI Contact for more spill info: CAROLINE Caller Phone:  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 07/25/2011       |                     | TANK TEST FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 0                 | GALLONS                 | 0                  | GALLONS             |                      |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method        | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 1           | 1080      | Horner EZ Check I or II | 0.00      | UNKNOWN               |

Caller Remarks:

repair/retest pending – unsure of status of cleanup

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DEC Investigator Remarks:

7/25/11 – Raphael Ketani. The spill was called in today as a tank test failure. The site is a 5 story early 1900s apartment building in the middle of the block.

The block and lot are 1169 and 35. The owners are 202 West 78 Street Tenants Corp., 10024. The building is a co-op and the management company is Merlot Management, 201 West 91 Street, Ste 1D, NY, 10024.

According to Donna Vieni of ABC Tank (718) 272–2800, the tank is a 1080 gal. with #2 oil. They don't know what part of the tank system failed. So they are going to isolate and retest. Right now, ABC crew can see the top of the tank through a 5 foot diameter hole on top. The tank is behind a wall. So they don't know whether it's on stilts or on the ground. It sits behind a wall which is also part of an apartment. So they're trying to avoid knocking down the wall in order to deal with the tank.

I sent a TTF letter to Merlot Management.

8/19/11 – Raphael Ketani. I spoke to Christopher Quintana of ABC about the tank test failure. He said that ABC went over there yesterday and tested the tank system. They used the E–Z horner test and noted a vacuum loss. This took place with the tank empty and clean. So they replaced most of the vent pipe, the fill and another pipe coming from the tank. They did the test again and the system still failed. So Mr. Quintana told Tom, the monitoring engineer for Merlot Management, that ABC would have to examine all of the fittings with a pressure test and soap to see where the leaks are. Tom agreed to the new test. Mr. Quintana added that the fittings on all of the old lines were so loose that he could hand turn them. Also, someone many years ago had made two cut outs on the tank in order to get inside and had reattached them with two part epoxy. The epoxy was porous. So this added to the failure. Mr. Quintana told Tom that ABC would have to knock down the sheetrock wall that closed off the tank in order to test all of the fittings. Tom was in agreement with this, too. With all of these loose fittings, I asked Mr. Quintana whether he could determine that oil had leaked from the tank system. He said that there was a slight odor of oil once you opened up the tank room, but nothing else. Also, he said that the white painted sheet rock did not show any signs of oil contamination or leakage. Lastly, he said that he steel welding crew had entered the empty tank and didn't see any holes. The two cut outs were properly welded to the tank. The new test will take place monday, 8/22/11. Mr. Quintana will inform me regarding the test results.

9/8/11 – Raphael Ketani. Mr. Quintana (718) 272–2800 of ABC called me today. He said that the tank passed the integrity test will all of the lines attached. He will send me the paperwork. He added that ABC repaired the top of the tank, the vent line and fill pipe fittings. The complete report will be sent to the DEC tomorrow.

Later, I received the tank integrity test report from Mr. Quintana by e-mail. The testing was performed by Estabrooks and the report was dated 8/26/11. The information showed a passing test with consistent results. I had no comments. Mr. Quintana wrote that the full report will be forthcoming soon.

9/16/11 – Raphael Ketani. I tried to contact Mr. Quintana, but I could only leave a message requesting the closure report.

9/19/11 – Raphael Ketani. Mr. Quintana called me back. He said that he will talk to the secretaries and have them send me the full closure report as they have all of the documentation. I asked him whether there are any odors or oil staining left. He said that there were no odors and the little staining that was present had been cleaned up.

9/20/11 – Raphael Ketani. Today I received a FAX containing the closure report for the work that was performed at the site. The FAX contained a cover page, a page explaining the work that took place, a copy of the passing 8/26/11 tightness test report and a diagram showing where the 1080 gal. tank was in relation to the building and the sidewalk. I reviewed the report and didn't have any comments.

Based upon the information in the case file and the database notes, it appears that ABC Tank made the necessary repairs to the tank system. Also, the system tested tight. Therefore, I have determined that there is no threat to the public or the environment. I closed the spill case.

**Map Identification Number 52**      **LEWIS BRANDEIS HIGH SCHOOL**      **Spill Number: 0210864**      **Close Date: 12/26/2014**  
      145 WEST 84TH STREET      NEW YORK, NY 10024      TT-Id: 520A-0098-744

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1132 feet to the N

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL      Spiller: JAMES MERLO – LEWIS BRANDEIS HIGH SCHOOL      Spiller Phone: (718) 391-6832  
 Notifier Type: Tank Tester      Notifier Name: SAME      Notifier Phone:  
 Caller Name: PHIL FAZIN      Caller Agency: CROWN LEAK DETECTION      Caller Phone: (516) 375-5890  
 DEC Investigator: VXBREVDO      Contact for more spill info: PHIL FAZIN      Contact Person Phone: (516) 375-5890

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 01/29/2003 |                     | TANK TEST FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

**TANK TEST INFORMATION**

| Tank Number | Tank Size | Tank Test Method        | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 1           | 20000     | Horner EZ Check I or II | 0.00      | UNKNOWN               |

Caller Remarks:

## TANK FAILED THE TEST.ABOVE GROUND TANK

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DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SAWYER 1/30/2003–Vought–Tank Test Failure letter sent by Vought by Fax and mail on 1/30/2003.

11/12/2003–Vought–Received affidavit from James Merlo (Bd. of Ed.). Affidavit was for temporary abandonment of one (2000–gallon) fuel oil UST located in a vault on saddles. Tank will remain out of service until funding becomes available for replacement. Contents of tank were removed, tank was thoroughly cleaned, fill line was cemented, oil lines were disconnected and capped and fuel oil tank was stenciled with out of service date. Vought called Merlo to find out extent of fuel release from vault (if any) and phone was repeatedly busy.

1/7/04–Vought–Spill transferred from Vought to Austin.

01/27/04 – Sawyer – Spill transferred from Austin to Sawyer.

07/16/13 – Spill Case is transferred from Leszek Zielinski (PBS Unit) to V. Brevdo (Section B) as per DER Region 2 decision – Tank Test Failure Spill Case. VB

12/26/2014 – V. Brevdo This spill is being closed due to no indication of a current release, no information indicating that there may have been a historical release, and no information that this tank test failure will be an issue in the future. Spill is closed effective 12/26/2014. No spill case closure letter is issued. VB

**Map Identification Number 53****EXXON CORP**

332 AMSTERDAM AVENUE

MANHATTAN, NY

**Spill Number: 9413181****Close Date: 09/16/1996**

TT–Id: 520A–0098–731

## MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 1138 feet to the W

## ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: GASOLINE STATION OR PBS FACILITY

Notifier Type: Responsible Party

Caller Name: SEAN ZHENG

DEC Investigator: SIGONA

Spiller: EXXONMOBIL CORP

Notifier Name:

Caller Agency: EXXON CORP

Contact for more spill info:

Spiller Phone:

Notifier Phone:

Caller Phone: (516) 876–4662

Contact Person Phone:

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/03/1995       |                     | TANK TEST FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| GASOLINE         | PETROLEUM           | 0                 | GALLONS                 | 0                  | GALLONS             | SOIL                 |

Caller Remarks:

DURING REMOVAL OF TANK & FOUND CONTAMINATED SOIL

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

**The following DEC Investigator Remarks were available prior to 1/1/2002:**

1/95 REMOVED 10 USTS, SOILS REMOVED TO BEDROCK.  
 5/96 BEDROCK CORING WAS COMPLETED TO ASSESS THE BEDROCK AND THE PRESENCE OF GROUNDWATER/ THE CORING WAS COMPLETED TO 10 FT. INTO THE BEDROCK AND NO GROUNDWATER WAS ENCOUNTERED.

**Map Identification Number 54**



**APRT**

141 WEST 73RD STREET  
 141 WEST 73RD ST

NEW YORK, NY 10023

**Spill Number: 0608521**

**Close Date: 02/11/2008**

TT-Id: 520A-0090-348

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1182 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: SFRAHMAN

Spiller: DAVID GILCREST – APRT  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: DAVID GILCREST

Spiller Phone: (212) 874-0300  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (212) 874-0300

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 10/25/2006       |                     | TANK TEST FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 0                 | GALLONS                 | 0                  | GALLONS             | SOIL                 |

Caller Remarks:

TANK IS LEAKING FOUND WHILE REMOVING- 7500 GALLON TANK

DEC Investigator Remarks:

Building is a senior citizens housing apartment. An above ground fuel oil tank was removed from the basement and the contractor discovered oil staining under the tank. They believe there is contamination under the tank location. They have already applied to the City for money to hire a contractor to locate and remove any contamination that may be there. CSL has been sent to: Mr. David Gillcrst Project Find 160 West 71st St - #2F New York, NY 10023 11/14/06 Rahman- RWP from Airtek Environmental tells about removal of contaminated soil from the former tank location. The former 7500 galon tank was partially buried and rested on a shallow bed of soil(6' deep). Above the level of the soil is a second layer of concrete. The UST was set into the upper concrete, was removed in October' 06, small holes were noted in the bottom. 10/19/07 Left a voice messege for Vic Ricchezza(Air Tek) asking status on this site. (SR) 02/11/08 Rec'd report from Airtek Environmental Corp. The UST was rested on concrete slab, which was removed. All soil between two concrete slabs were removed, no soils left for end point sampling. No breaks in the lower concrete slab was found and the standing water level did not decrease before removal. Therefore, no sample taken from the below concrete slab. Disposal manifest were provided. NFA required. SR

Map Identification Number 55



NATIONAL CAR RENTAL SITE

219 WEST 77TH STREET

MANHATTAN, NY

Spill Number: 0310460

Close Date: 01/14/2004

TT-Id: 520A-0098-708

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 1228 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Tank Tester

Caller Name: ANSIL ANTOINE

DEC Investigator: JMMROMMEL

Spiller: VANGUARD CAR RENTAL

Notifier Name: ANSIL ANTOINE

Caller Agency: TANKNOLOGY

Contact for more spill info: HELEN HONG

Spiller Phone:

Notifier Phone: (347) 728-4012

Caller Phone: (347) 728-4012

Contact Person Phone: (202) 508-9504

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 12/10/2003 |                     | TANK TEST FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units  | Quantity Recovered | Units  | Resource(s) Affected |
|------------------|----------------|------------------|--------|--------------------|--------|----------------------|
| GASOLINE         | PETROLEUM      | 1.00             | POUNDS | 0.00               | POUNDS | GROUNDWATER          |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|------------------|-----------|-----------------------|
| 1           | 2000      | VacuTest         | 0.00      | UNKNOWN               |

Caller Remarks:

tank test. failed unextinguished. no product lose.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was ROMMEL Sangesland sent a TTF letter to National Car Rental Agent:

Helen Hong Paul, Hastings, Janofsky & Walker LLP 1299 Pennsylvania Ave, N.W. – Tenth Floor Washington D.C. 20004

1/14/04 Reviewed 1/7/04 submittal from Paul, Hastings, Janofsky & Walker LLP who are working for Vanguard Car Rental. Helium test performed on 12/22 to isolate leak. No leak identified. Previous test failed due to ullage ingress via a remote pumping station. The station was isolated, system passed retest. Tank retested on 12/22/03, accepted by PBS Unit. spill closed. Rommel

Map Identification Number 56 AVIS RENT A CAR  
 216 W 76TH ST

NEW YORK, NY 10023

Spill Number: 0202743

Close Date: 03/05/2007  
 TT-Id: 520A-0098-715

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1275 feet to the W

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                        |                                                       |                                      |
|----------------------------------------|-------------------------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: AVIS RENT A CAR                              | Spiller Phone:                       |
| Notifier Type: Tank Tester             | Notifier Name: STEVE BROGAN                           | Notifier Phone:                      |
| Caller Name: BRIAN BERKLE              | Caller Agency: CROMCO                                 | Caller Phone: (610) 278-7203         |
| DEC Investigator: JMKRIMGO             | Contact for more spill info: ALVIN PETRO-MIKE PASCOFF | Contact Person Phone: (718) 461-5400 |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 06/14/2002 |                     | TANK TEST FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE         | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method        | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 1           | 4000      | Horner EZ Check I or II | 0.00      | FAIL                  |

Caller Remarks:

THE TANK IS O/S UNTIL A DECISION IS MADE ON HOW TO PROGRESS

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was ROMMEL 12/2/2003 Transferred from Sangesland to Rommel

Map Identification Number 57



APT BLD TTF

101 WEST 72ND ST  
A/K/A 260 COLUMBUS AVE

MANHATTAN, NY

Spill Number: 1003932

Close Date: 07/06/2012

TT-Id: 520A-0253-025

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 1311 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

|                                        |                                               |                                       |
|----------------------------------------|-----------------------------------------------|---------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: DOMINIC MORDATTO – APT BLD           | Spiller Phone:                        |
| Notifier Type: Tank Tester             | Notifier Name:                                | Notifier Phone:                       |
| Caller Name:                           | Caller Agency:                                | Caller Phone:                         |
| DEC Investigator: SMSANGES             | Contact for more spill info: DOMINIC MORDATTO | Contact Person Phone: (914) 774--3838 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 07/08/2010 |                     | TANK TEST FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #2 FUEL OIL      | PETROLEUM      | 0                | UNKNOWN | 0                  | UNKNOWN |                      |

Caller Remarks:

fill and vent line are in the ground and shows release although it does not look like loss of product.

DEC Investigator Remarks:

Spill initially reported at 260 Columbus Ave (corner building) PBS 2-360929 was traced back to PBS address – 101 West 72st. Sangesland left voice message with Prop Mgr Arthur Rauzman 212-344-1444

10/26/2011 Sangesland left ANOTHER voice message for Mr. Rauzman

1/19/2012 Sangesland spoke to Mr. Rauzman's supervisor... She promised a return call today... New Contact for the site is Dominic (Chase) 914-774-3838. He has hired John at NY Plumbing (917-440-2403) Old tank is out of service. Temp tanks set up and waiting to switch the building to Natural Gas. Bank is waiting for approval to fill the tank with foam and abandon the tank. Sangesland said I need info on the fill line and vent line.

1/26/2012 Sangesland inspected the basement. No staining on the basement walls. This whole area of Columbus Ave was dug up by the city about 5 years ago. New streets, curbs and sidewalks. Remote fill line was closed prior to this work. Can not identify where the remote fill used to be. No sign of spill, so DEC is closing this spill case out.

**Map Identification Number 58**

**BASEMENT**

**Spill Number: 1312078**

**Close Date: 06/12/2014**



12 WEST 72ND ST

MANHATTAN, NY

TT-Id: 520A-0297-283

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1555 feet to the SSW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Tank Tester  
 Caller Name:  
 DEC Investigator: HRPATEL

Spiller: AL SALSANO – AL SALSANO  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: AL SALSANO

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (917) 327-8851

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 03/26/2014 |                     | TANK TEST FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | UNKNOWN | 0                  | UNKNOWN |                      |

**Caller Remarks:**

10,000 gallon tank.

**DEC Investigator Remarks:**

04/21/14–Hiralkumar Patel. alternate address: 12–18 West 72nd Street

no other spills found.

PBS #: 2–241415. as per PBS record, the site has one 10,000 gal #2 oil AST on saddles. the tank was installed in Jan. 1952.

1:48 PM:– spoke with Protest front desk. the 10,000 gal tank system failed in dry portion during test on 03/26/14. Protest conducted partial isolation test on 04/07/14. they tested tank, remote fill and vent line together and found leak. Protest suspected leak in remote lines and has submitted work proposal about a week and half ago. Protest technician did not observed any contamination. the tank is in vault under the sidewalk.

2:06 PM:– spoke with Mr. Hinckley, property manager. he has no knowledge about the tank system test.

Oliver Cromwell Owners, Inc.

**\*\*property owner\*\*** c/o Tudor Realty Services 250 Park Avenue South New York, NY 10003 Attn.: Thomas Hinckley

**\*\*property manager\*\*** PH. (212) 557-3600 email: tomh@tudorrealty.com

2:12 PM:- spoke with Mr. Salsano, co-op board president. he mentioned that they have sealed the remote fill port and Protest will replace the leaking line. Mr. Salsano asked to send letter to his attention.

Oliver Cromwell Owners, Inc.

**\*\*property owner\*\*** c/o Al Salsano Co-Op Board President 12 West 72nd Street, Apt. 30A New York, NY 10023 Ph. (212) 813-3016

(917) 327-8851 email: alsalsano@aol.com

2:29 PM:- sent TTF letter to Mr. Salsano. letter emailed to Mr. Salsano.

06/06/14-Hiralkumar Patel. 10:36 AM:- received call from Rene Lewis (917-569-8323). he mentioned that the initial tank test failure was caused by a small leak in flange on fill line. the leak was inside the building. he will replace the leaking portion and will retest the system. he mentioned that report will be submitted by 06/13/14.

06/12/14-Hiralkumar Patel. received fax from Rene. he removed leaking 3 inch flange on fill line and replaced with 3 inch union. the tank system was retested and it passed.

based on available information, case closed. 12:13 PM:- sent spill closure letter to Mr. Salsano. letter emailed to Mr. Salsano.

**Map Identification Number 59**



**BELLECLAIRE HOTEL**  
250 WEST 77TH STREET

NEW YORK, NY 10024

**Spill Number: 0603441**

**Close Date: 06/01/2007**  
TT-Id: 520A-0098-743

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 1577 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
Notifier Type: Tank Tester  
Caller Name:  
DEC Investigator: BKFALVEY

Spiller: MARLIN JOSEPH - HOTEL  
Notifier Name:  
Caller Agency:  
Contact for more spill info: MARLIN JOSEPH

Spiller Phone: (718) 624-4842 ext. 1  
Notifier Phone:  
Caller Phone:  
Contact Person Phone: (718) 624-4842 ext. 1

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |         | Penalty Recommended |         |                      |
|------------------|---------------------|-------------------|-------------------------|---------|---------------------|---------|----------------------|
| 06/28/2006       |                     | TANK TEST FAILURE | NO                      |         | NO                  |         |                      |
| Material Spilled |                     | Material Class    | Quantity Spilled        | Units   | Quantity Recovered  | Units   | Resource(s) Affected |
| #6 FUEL OIL      |                     | PETROLEUM         | 0                       | GALLONS | 0                   | GALLONS | SOIL                 |

## TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method        | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 2           | 5000      | Horner EZ Check I or II | 0.00      | UNKNOWN               |

## Caller Remarks:

PETROLEUM TANKS WILL RETURN TO FIND PROBLEM:

TANK WAS EMPTY DURING TEST

## DEC Investigator Remarks:

need to send TTF letter 07/03/06–Hiralkumar Patel. Spoke to Diana at Petroleum. they haven't gone yet for isolation test. she gave me owner's information as: Hotel Belclair (212) 706–4476

tried number for owner, but no response. 07/05/06–Hiralkumar Patel. Left message for manager at hotel.

7/7/06 spoke with Paul Cadenas of Belleclaire Hotel. Petroleum Tanks coming next week to retest. he told me he would call regarding the results. sent TTF letter. bf.

7/7/06 left voice mail message for M. Salamack of Petroleum Tanks to ask for date of test and for results. bf.

5/24/07 bf: Called Mr. Cadenas and left message. Sent 2nd ttf letter to: John Huber Lophijo Realty 19 Dawson Lane Jamesburg, NY 08831

5/30/07 received message from mark Salamack of Petroleum Tank Cleaners. He said he's calling because they were frantic in response to my letter. Soil samples were taken. No work was done lately because the hotel wasn't paying PTC. Also received message from Tara Gowdy of Hotel Belleclair (212)706–4469. She requested a call back. I called her back and she states that she thought the spill was closed. She will make sure that PTC gives DEC what is required (the letter/report). bf

6/1/07 This case is to be combined into Spill 0603176 which is at the same site and is a result of the tank failure. Administratively closed. bf

**Map Identification Number 60** **BELLECLAIRE HOTEL**  
 250 WEST 77TH ST

MANHATTAN, NY

**Spill Number: 0509393**

**Close Date: 12/07/2005**  
 TT-Id: 520A-0097-826

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1577 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Tank Tester  
 Caller Name: CHRIS GORGA  
 DEC Investigator: JBVOUGHT

Spiller: CHRIS GORGA - HOTEL  
 Notifier Name: CHRIS GORGA  
 Caller Agency: PETROLEUM TANK CLEANERS  
 Contact for more spill info: CHRIS GORGA

Spiller Phone: (646) 772-1404  
 Notifier Phone: (646) 772-1404  
 Caller Phone: (646) 772-1404  
 Contact Person Phone: (646) 772-1404

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 11/04/2005 |                     | TANK TEST FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

**TANK TEST INFORMATION**

| Tank Number | Tank Size | Tank Test Method        | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
|             | 4000      | Horner EZ Check I or II | 0.00      | UNKNOWN               |

**Caller Remarks:**

east side tank. above liquid leak.

**DEC Investigator Remarks:**

11/7/05-Vought-Off-hours duty responder. Vought called Petroleum Tank Cleaners (Chris Gorga) and not sure if tank will be retested as they were subcontracting. West side tank may also need testing. Gorga requested Vought call Ray or Anthony Lara. Vought called PTC and left message for Ray to return call to provide info on owner and further action on UST. Vought received call from Ray and work was for Castle Oil Company (Jim Carey 718-579-3410). Vought called Jim Carey for contact info:

250 West 77th Street NY NY 10024 Attn: Sidney 212-706-4471 fax 212-362-1004

As per Jim, 2000-gallons of #6 fuel oil was delivered on 10/29/05 and Castle was notified that gauge did not record a delivery. Tank was opened and contents were gone as of 11/3/05. Basement was inspected and no odor, no oil was found. Vought ran PBS and contact info is Sidney Zimmer (212-362-7700). Vought called Zimmer and he was skeptical of spill amount lost. TTF letter to be sent to:

Belliclaire Hotel Lophijo Realty 250 West 77th Street New York, NY 10024 Fax: 212-362-1004

Vought sent out TTF letter to Zimmer.

12/06/05-Vought-Received call from and spoke to Paul Cardenas (Hotel Bel Claire 212-706-4476). TTF failed pressure test due to broken vent line that has been replaced. New system test was performed and passed. Missing 2000-gallons was siphoned over to west tank (3000-gallon #6 fuel oil) due to valve left open. Paul will fax in results to DEC.

12/7/05-Vought-Received faxed copy of test results from Hotel BelleClaire (Paul Cardenas). The vent line to this 4000-gallon tank has been replaced and the tank has passed the pressure test. As of the missing 2000-gallons of oil it has been determined that the main supply valve on Tank #1(4000-gallon) capacity was not completely in the closed position when Tank #2 (3000 gallon capacity) was switched over into service causing the product in Tank #1 to pump out with the product in Tank #2. There has been no evidence of any petroleum release or any damage to Tank #1 itself. Vought called Paul Cardenas and faxed him copy of closed spill report. Spill closed by Vought.

**Map Identification Number 61**



**TTF**

233 WEST 77TH STREET

NYC, NY

**Spill Number: 1305857**

**Close Date: 07/21/2015**

TT-Id: 520A-0289-137

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1586 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: SXMAHAT

Spiller: UNKNOWN  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: CHRIS STEELE

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (718) 624-4842

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 09/04/2013 |                     | TANK TEST FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 0                | UNKNOWN | 0                  | UNKNOWN |                      |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks:

9/6/13– ttf letter sent

4/9/15: Mahat DEC Mahat received a call from Donna ( ABC Tank ) inquiring about the spill case manager. Spill case is associated a above ground tank in the facility. There is no correpondance fulfilling the letter that was sent on 9/6/13.

However, the facility also has a 7,500 gallon UST ( non–spill related tank). ABC has been retained to abandoned the tank in place. Technical went down to the tank in order to collect three samples. Since the tank is sitting on tht water table, the tank was flooded with the water. ABC tank took the GW sample and it came out to be clean. ABC tank is preparing a tank abandon report to DEC PM attention for a review.

Also, Below is the point of contact for TTF for abaove ground tank:

Stahl Stahl LLC Jermy : 212.826.5487 John : 212.826.5486

4/9/15: Mahat Spill case has been reassigned to DEC Mahat as discussion with DEC Demeo.

Email confirmation was received that the tank has been repaired and retested with passing result. John, I'm not in the office right now, I know that the tank was tested and failed because of a defective vent pipe, the vent was replaced same day and tank was retested and passed. Second test should have cancelled out first. Let me talk to my installation Dept. And see why it didn't. Sounds like a paperwork problem here.

Kevin Amass Service Manager National Mechanical Services Inc. P–201–488–5151 X–102 F–201–488–5140 C–201–206–5051

DEC is waiting for a spill case closure report.

6/5/15: Mahat DEC Mahat has sent an email out to Mr. Amsaa requesting for a closure reprot for the spill case.

7/21/15: Mahat DEC Mahat received an email confirmation from Kevin Amass that the repair has been performed and tank passed the pressure test. Email :

John, I'm not in the office right now, I know that the tank was tested and failed because of a defective vent pipe, the vent was replaced same day and tank was retested and passed. Second test should have cancelled out first. Let me talk to my installation Dept. And see why it didn't. Sounds like a paperwork problem here.

Kevin Amass Service Manager National Mechanical Services Inc. P–201–488–5151 X–102 F–201–488–5140 C–201–206–5051

Based on the email confirmation, the Department does not warrant nay further investigation on the site. Spill case will be closed in DEC Spill Database.

**Map Identification Number 62** **CONDO 241 W 75TH ST**  
 241 W.75TH ST

NEW YORK, NY

**Spill Number: 9108242**

**Close Date: 12/06/1991**  
 TT-Id: 520A-0098-724

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1647 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Tank Tester  
 Caller Name: S LORIFICE  
 DEC Investigator: MCTIBBE

Spiller:  
 Notifier Name:  
 Caller Agency: TANK TEST INC  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (718) 789-3770  
 Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 11/01/1991 | 12/06/1991          | TANK TEST FAILURE | UNKNOWN                 | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units  | Quantity Recovered | Units  | Resource(s) Affected |
|------------------|----------------|------------------|--------|--------------------|--------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | -1.00            | POUNDS | 0.00               | POUNDS | SOIL                 |

**TANK TEST INFORMATION**

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|------------------|-----------|-----------------------|
|             |           | Unknown          | 0.00      | UNKNOWN               |

**Caller Remarks:**

E I & R REFER TO SPILL # 9108119, SP91283

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIBBE

**Map Identification Number 63** **APARTMENT BUILDING – TTF**  
 166 WEST 72ND STREET

MANHATTAN, NY

**Spill Number: 1215632**

**Close Date: 11/24/2015**  
 TT-Id: 520A-1000-803

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1693 feet to the SW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: TJDEMEMO

Spiller: PROPERTY OWNER  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: ROBERT HILL

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: 7188557272

**Category:** Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
**Class:** Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 02/15/2013       |                     | TANK TEST FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #6 FUEL OIL      | PETROLEUM           | 0                 | UNKNOWN                 | 0                  | UNKNOWN             |                      |

**Caller Remarks:**

Tank test failure, no known loss of product. 3000G tank

**DEC Investigator Remarks:**

2/15/13-Vought-Called and spoke to Rob Hill (Fax:718-855-7244)and they asked Riteway to pump and clean tank and they did tank test after the tank was pumped and cleaned. They installed temporary tanks and will isolate and retest. No spills noted in basement. Letter should go to:

3/27/13 AFrischeisen intern TTF letter sent.

4/02/13 AFrischeisen intern Telephone call with Rob Hill from Riteway for update. Rob said they will begin removal of existing tank in the middle of next week 4/ – 4/12, install new tank following removal, retest, etc.

11/24/15 TJD File review. Requested closure documentation from Riteway Tank on 11/9/15. The report is summarized below:

A tank test was performed on the above referenced property which failed on February 15, 2013. The NYSDEC was notified and spill# 1215632 was obtained. The tank was immediately evacuated, cleaned and temp tanks were installed. The existing 3,000 gallon AST

was removed (please see enclosed FDNY Affidavit). After the tank was removed, room debris was drummed up and the floor was leveled. 12 x 55 gallon drums (please see enclosed manifest) of debris were generated from the tank removal and the preparation of the floor for a new concrete pad. The room was clean and free from contamination. A new concrete pad was poured. A new 3,000 gallon AST was installed with new pipe work. Temporary tanks were pumped out, cleaned and removed. Based upon the above information – no further action is required. All received documentation has been uploaded to DECDOCS. Spill closed.

**Map Identification Number 64**

**176 WEST 87TH STREET**  
176 WEST 87TH STREET



MANHATTAN, NY

**Spill Number: 0611481**

**Close Date: 04/02/2008**  
TT-Id: 520A-0101-135

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 1824 feet to the N

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
Notifier Type: Other  
Caller Name:  
DEC Investigator: BKFALVEY

Spiller: CHRIS GORGA  
Notifier Name:  
Caller Agency:  
Contact for more spill info: CHRIS GORGA

Spiller Phone: (718) 624-4842 ext. 1  
Notifier Phone:  
Caller Phone:  
Contact Person Phone: (718) 624-4842 ext. 1

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 01/16/2007 |                     | TANK TEST FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

**TANK TEST INFORMATION**

| Tank Number | Tank Size | Tank Test Method        | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 1           | 5000      | Horner EZ Check I or II | 0.00      | UNKNOWN               |

**Caller Remarks:**

ABOVE LIQUID LEAK'

**DEC Investigator Remarks:**

1/23/07 sent ttf letter to: Michell Schamroth 176 West 87th Street Owners Corp. 176 West 87th Street New york, NY 10024

bf

3/5/07 Received tank test results for tank. Tank is AST in contact with soil. More info needed. Called Jack Terebelo of Halstead Management (212)508-7645 and left message that more information is needed. Also, tank may not be registered. Data base has 10K tank for #6 fuel at this location. PBS#2-214396. Tank test results state that it is a 5K tank for #2 fuel. bf

3/6/07 On 3/5/07 at 5:15 pm received message from Mr. Terebelo. (212)508-7391. Returned call and left message to call me back. bf

3/23/07 Received letter from Jack Terebelo of Halstead Management. Tank failed test on 1/16/07. Tank passed retest on 1/25/07. An opening was found at the top of the tank that was likely not plugged when the petrometer was changed in 2005. Expandable plug was inserted. He sent PTC numerous requests for a letter and they have not, so he is submitting the letter. Tank test results, invoice, and confirmation that the tank is 5K were enclosed. bf

2/28/08 Called Joe Ostrowski of Petroleum Tank Cleaners. Two old lines at manhole cover were never sealed. After they sealed them, the tank passed tightness test. Will talk to Mark Salamack tomorrow re: letter for DEC closure. bf

4/1/08 Sent fax to M. Salamack requesting response to ttf letter. bf

4/2/08 Received fax from M. Salamack of PTC. Gauge line was broken. Line repaired and tank passed test on 1/25/07. Passing test results attached. NFA. bf

**Map Identification Number 65**



**TTF - APARTMENT COMPLEX**

465 WEST END AVENUE

NEW YORK, NY

**Spill Number: 1403318**

**Close Date: 11/04/2014**

TT-Id: 520A-0300-649

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2005 feet to the NW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: HRPATEL

Spiller: A1 CROWN CORP  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: ROB HILL

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: 7188557272

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 06/26/2014 |                     | TANK TEST FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 0                | UNKNOWN | 0                  | UNKNOWN |                      |

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Caller Remarks:

Tank was empty upon failure. No material spilled as per caller.

---

DEC Investigator Remarks:

06/27/14–Hiralkumar Patel. alternate address: 301 West 82nd Street

no other spills found.

PBS #: 2–201685. as per PBS record, the site has one 5,000 gal #6 oil UST, installed in Jan. 1995.

as per NYC DOB record, a permit was approved on 05/13/14 to change fuel grade from #6 to #2.

2:27 PM:– spoke with Phil. he was hired by Riteway tank to conduct tightness test on recently cleaned #6 fuel oil tank system. Phil mentioned that no pressure built up during the test.

2:44 PM:– spoke with Rob at Riteway. they cleaned out tank yesterday as part of grade conversion.

3:20 PM:– left message for Mr. Ginsberg.

465 WEA Owners Corp.

\*\*property owner\*\* c/o Orsid Realty Corp.

\*\*property management\*\* 1740 Broadway, 2nd Floor New York, NY 10019 Attn.: Harvey Ginsberg

\*\*property manager\*\* PH. (212) 247–2603

(212) 484–3739

(212) 484–3720 Fax (212) 586–4524 email: hginsberg@orsidr.com

3:35 PM:– sent TTF to Mr. Ginsberg, requiring report submission by the end of 07/31/14. letter emailed to Mr. Ginsberg and Rob.

08/25/14–Hiralkumar Patel. 4:23 PM:– sent email to Mr. Ginsberg inquiring about the report. email copied to Rob.

08/27/14–Hiralkumar Patel. 10:51 AM:– received call from Dave. currently, they are cleaning the tank and will remove it soon. he will send email with more update and schedule. 12:16 PM:– received email from Dave. they did an isolation test and found leak in

dry potion. they are scarping and washing the tank today. tank removal will begin tommorrow.

09/26/14–Hiralkumar Patel. 2:47 PM:– spoke with Dave. they removed the tank and slightly contaminated vault material. after removing the tank, the floor was found in good condition and no signs of spill noted underneath the tank. asked Dave to submit closure report.

11/03/14–Hiralkumar Patel. 11:04 AM:– spoke with Dave and asked him to submit closure report. 3:07 PM:– received email from Dave including closure letter. the letter included information about tank’s removal and condition of floor underneath the tank (which was found sound). no contamination was observed underneath the tank. the letter does not include information about investigation along the piping. as per the tank removal affidavit, the fill line was cemented. the vent, suction and return lines were cut and capped or disconnected and removed from the premises.

11/04/14–Hiralkumar Patel. 8:04 AM:– sent email to Dave and asked him to submit documents related to investigation along the piping. email copied to Rob and Mr. Ginsberg. 10:17 AM:– received email from Dave. he mentioned that during isolation test, a leak was found in elbow on fill line coming off the top of the tank. all the piping associated with the system was aboveground.

based on available information, case closed. 10:34 AM:– sent spill closure letter to Ms. Ginsberg. letter emailed to Mr. Ginsberg and Dave.

**Map Identification Number 66**



**ABOVE GROUND**

473 WEST END AVE

NEW YORK CITY, NY

**Spill Number: 1206692**

**Close Date: 08/29/2013**

TT–Id: 520A–0278–043

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2033 feet to the NW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: HRPATEL

Spiller: CHRISTPHOR STEELE – UNKNOWN  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: CHRISTPHOR STEELE

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (718) 624–4842

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 10/05/2012       |                     | TANK TEST FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 0                 | UNKNOWN                 | 0                  | UNKNOWN             |                      |

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Caller Remarks:

failed tank test

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DEC Investigator Remarks:

10/09/12–Hiralkumar Patel. alternate addresses: 473–475 West End Ave, 300–308 W 83rd St PBS #: 2–266698. as per PBS record, the site has one 5,000 gal #6 oil AST in contact with soil. tank was installed on 02/04/1972.

no other spills found.

10:53 AM:– spoke with Mark at PTC. Mark mentioned that the site has one 5,000 gal AST in basement room. he doesn't know whether tank sitting on floor or on saddles. Chris was not in office. PTC was sub–contracted by Gee Cee Mechanical.

Vinny Col Gee Cee Mechanical Ph. (718) 258–9800 email: betternrg@aol.com

11:12 AM:– spoke with Vinny at Gee Cee. he mentioned that consulting firm hired them as part of boiler replacement project and asked for tank test. he asked to contact Earl Kirn, property manager.

11:15 AM:– spoke with Mr. Kirn. he mentioned that they are converting from #6 to #2 oil. they have cleaned out the tank and filled with #2 oil. Mr. Kirn mentioned that the tank was tested prior to filling with #2 oil. informed him that as tank system failed the test, the department required immediate action to stop any petroleum release from the system. asked him to either perform isolation test (and confirm that tank/supply/return lines are tight) or pump out the tank, by the end of tomorrow.

473 Owners Corp.

\*\*property owner\*\* c/o Midboro Management Inc.

\*\*management company\*\* 148 W 37th Street, 8th Floor New York, NY 10018 Attn.: Earl Kirn

\*\*property manager\*\* Ph. (212) 877–8500 Ext. 220 email: ekirn@midboro.com

11:20 AM:– left message for Vinny. 11:34 AM:– received call from Vinny. informed him about discussion with Mr. Kirn. 12:58 PM:– sent TTF letter to Mr. Kirn. asked him to submit report by 11/14/12. letter emailed to Mr. Kirn and Vinny.

10/16/12–Hiralkumar Patel. received message from Mark (at 12:22 PM on 10/15/12) from PTC. he mentioned that during isolation process, they found old tell–tale line connected to the tank. after disconnecting the tell–tale line, the remaining tank system passed the test. 10:09 AM:– spoke with Mark. asked him to submit result of tank system test. also asked him to investigate at the other end of the tell–tale line, as there might be contamination if tank overfilled in past. Mark mentioned that tank is wrapped in concrete. 10:14 AM:– spoke with Mr. Kirn. informed him about findings of tell–tale line and asked him to investigate at the other end of the tell–tale line. he will talk to contractor.

12/10/12–Hiralkumar Patel. 11:18 AM:– spoke with Mark. he mentioned that no further work is done. 11:24 AM:– spoke with Vinny.

he mentioned that due to storm, no work done on tank. currently, the building is using temporary boiler unit (with temporary day tank) as they are in process of replacing the boiler. 11:28 AM:– left message for Mr. Kirn.

01/07/13–Hiralkumar Patel. 11:36 AM:– left message for Mr. Kirn and asked to return call by the end of 01/09/13 to avoid enforcement.

01/08/13–Hiralkumar Patel. received fax from Mark from PTC including report. Mark mentioned that an old tell tale line was attached to the tank and terminated under the ground. old tell tale line was disconnected and the tank system tested tight.

10:54 AM:– left message for Mark. 10:56 AM:– received call from Mark. asked him about investigation at other end of tell tale line. he mentioned that no work has been done about that. 10:58 AM:– left message for Mr. Kirn and informed him that the department requires investigation at the other end of tell tale line. 12:31 PM:– received call from Mr. Kirn. discussed about investigation at the other end of tell tale line. he has spoke with engineer/contractor who are replacing boiler at the site and old tell tale line will be exposed in couple of days. asked him to submit results by the end of 01/18/13.

04/11/13–Hiralkumar Patel. 10:20 AM:– visited site. inspected tank room. site has aboveground tank wrapped in concrete. lines to and from tank are running aboveground except fill line that runs under the sidewalk. on–site person mentioned that a new set of fill/vent lines were installed after tank test failure in Oct. 2012. observed old fill/vent lines inside building. 10:39 AM:– left message for Mr. Kirn.

Kol

\*\*building super\*\* Ph. (646) 241–8010

3:17 PM:– spoke with Mark. he mentioned that proposal for tell–tale line investigation was sent to Gee Cee Mechanical but no response received yet. 3:20 PM:– spoke with John at Gee Cee Mechanical. he doesn't know anything and will ask Vinny to call back.

04/12/13–Hiralkumar Patel. 11:18 AM:– spoke with Kol, building super. he doesn't know anything about old tell–tale line. 11:20 AM:– spoke with Mr. Kirn. he mentioned that no investigation has done yet for any spill at other end of tell–tale line, which terminates in ground. asked him to provide work update by the end of 04/19/13.

06/24/13–Hirakumar Patel. 2:05 PM:– left message for Ms. Florence, new property manager.

Michele Florence Midboro Management Inc. Ph. (212) 877–8500 Ext. 206 Fax (212) 875–0808 email: mflorence@midboro.com

2:07 PM:– sent email to Ms. Florence and asked to call back. 2:35 PM:– received call from Ms. Florence. informed her that the department requires investigation at the other end of tell–tale line. she will contact contractor and will call back.

07/19/13–Hiralkumar Patel. 1:26 PM:– received email from Ms. Florence. she mentioned that building board has approved further investigation. they have sent deposit check to PTC and PTC will file permit application.

08/01/13–Hiralkumar Patel. 11:17 AM:– spoke with Mark at PTC. he got ok from management for further investigation. to continue work, they need NYC DOT permit and Mark is waiting for signed letter from management to include in permit application. 11:21 AM:– spoke with Ms. Florence. she will follow up with permit application requirements.

08/14/13–Hiralkumar Patel. 3:58 PM:– received email from Ms. Florence. they received permit and further investigation is scheduled for 08/21/13.

08/26/13–Hiralkumar Patel. 10:04 AM:– received message from Mark. 1:25 PM:– spoke with Mark. they exposed the old tale–tell line and found some contamination. they removed 4 drums of contamination. there is still some contamination in ground. asked Mark to take some pictures of excavation area and endpoint soil samples.

08/28/13–Hiralkumar Patel. 6:40 AM:– received email from Mark including three pics. he found coal dust and cinders while excavating near fill port. he inquired about excavation requirement. 1:31 PM:– left message for Mark. 2:46 PM:– received call from Mark. they found tale–tell line near fill port area. scheduled a site inspection at 9:30 AM tomorrow.

08/29/13–Hiralkumar Patel. 9:30 AM:– visited site. met Mark. inspected excavation around fill port, where tale–tell line ended. found end of tale–tell line sealed with cement. found backfill material in excavation, in top layer. no petroleum odors noted in backfill material or soil around fill port.

based on observations during the site visit, case closed. 12:56 PM:– spoke with Ms. Florence and informed her about case closure.

**Map Identification Number 67**



**RESIDENTS**

307 WEST 79 STRET

NEW YORK, NY

**Spill Number: 1407368**

**Close Date: 11/24/2014**

TT–Id: 520A–0305–036

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2063 feet to the WNW

**ADDRESS CHANGE INFORMATION**

Revised street: 307 W 79TH STREET  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: SXMAHAT

Spiller: DANIEL – PROPERTY OWNER  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: DANIEL

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (917) 257–3672

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 10/15/2014       |                     | TANK TEST FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #6 FUEL OIL      | PETROLEUM           | 0                 | UNKNOWN                 | 0                  | UNKNOWN             |                      |

Caller Remarks:

caller reporting a 5,000 gallon tank failed tank test, tank will be replaced

DEC Investigator Remarks:

10/17/14: Mahat A closure letter was sent out to the property owner ( PBS #  
 ). The PBS registration is expired on 2007. A letter including TTF and PBS Rgistration is sent out to the following address :

MICHAEL EDELSTEIN 307 WEST 79TH STREET

October 17, 2014 New York, NY 10024

Re: Spill Case: 1407368 307 West 79th Street, New York

DEC is waiting for a report from the property owner.

11/24/14: Mahat Fax: DEC Mahat received a fax from Mr. ( Gry Greene @ Imperial Realty ) including a closure request and TTF result. The leaking hole on the tank has been repaired and the tank passed the TT. Report has been uploaded on D2. Based on the report provided, the Department does not need any further investigation. Hence, the spill case will be closed in the database.

Map Identification Number 68

52 RIVERSIDE DR  
 52 RIVERSIDE DR

NYC, NY

Spill Number: 9106109

Close Date: 12/05/1991  
 TT-Id: 520A-0091-846

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2291 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Responsible Party  
 Caller Name: MITCH GELBERT  
 DEC Investigator: MCTIBBE

Spiller:  
 Notifier Name:  
 Caller Agency: BECKER, RUBIN & ASSOC  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (212) 580-2100  
 Contact Person Phone:

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 09/06/1991       | 12/05/1991          | TANK TEST FAILURE | UNKNOWN                 |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| PCB OIL          | PETROLEUM           | 75.00             | GALLONS                 | 0.00               | GALLONS             | SEWER                |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method | Leak Rate | Gross Leak or Failure |
|-------------|-----------|------------------|-----------|-----------------------|
|             |           | Unknown          | 0.00      | UNKNOWN               |

Caller Remarks:

SPILLAGE ON CONCRETE IN BASEMENT & SOME TO SUMP. A L EASTMOND TO DO CLEANUP 212-378-3000. EMPTIED 5K TANK. WILL REPAIR.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIBBE

Map Identification Number 69



RESIDENTS TTF

277 WEST END AVE

NEW YORK, NY

Spill Number: 1403485

Close Date: 07/02/2015

TT-Id: 520A-0300-653

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (3)  
 Approximate distance from property: 2299 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: vszhune

Spiller: ROB HILL - NONE  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: ROB HILL

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (718) 855-7272

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 07/01/2014 |                     | TANK TEST FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 0                | UNKNOWN | 0                  | UNKNOWN |                      |

Caller Remarks:

5,000 gallon tank failed tank test, no spill of material. tank is empty

DEC Investigator Remarks:

4/13/15–Riteway emailed the spill closure report. The letter stated that In July of 2014, Riteway Maintenance Corp. was contacted by Abilene Inc.to perform a tank cleaning and tank test on 1 x 5,000 gallon tank for a conversion. After the cleaning of the tank, a tank tightness test was performed on the tank and failed.

The tank failed with a dry portion ullage leak. there was no contamination present. As part of the remedy to the tank test failure, the property re–placed the entire bottom of the tank, installed new steel saddles and the new 2 vent.

The tank is scheduled to be retested next week. Riteway will submit the test results to the NYSDEC as soon as it is completed.

5/27/15–Riteway emailed the passed results of the tank tightness test. Spill Closed.

**Map Identification Number 70** **310 WEST 86TH ST** **Spill Number: 0701980** **Close Date: 08/29/2007**  
 310– 320 WEST 86TH STREET NEW YORK, NY TT–Id: 520A–0101–343  
 MAP LOCATION INFORMATION ADDRESS CHANGE INFORMATION  
 Site location mapped by: PARCEL MAPPING (1) Revised street: 314 W 86TH ST  
 Approximate distance from property: 2506 feet to the NNW Revised zip code: NO CHANGE  
 Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER Spiller: MARLIN JOSEPH Spiller Phone: (718) 624–4842 ext. 1  
 Notifier Type: Tank Tester Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: Caller Phone:  
 DEC Investigator: bkfalvey Contact for more spill info: MARLIN JOSEPH Contact Person Phone: (718) 624–4842 ext. 1

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 05/17/2007 |                     | TANK TEST FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #4 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

TANK TEST INFORMATION

| Tank Number | Tank Size | Tank Test Method        | Leak Rate | Gross Leak or Failure |
|-------------|-----------|-------------------------|-----------|-----------------------|
| 1           | 7500      | Horner EZ Check I or II | 0.00      | UNKNOWN               |

Caller Remarks:

ABOVE LIQUID LEAK

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DEC Investigator Remarks:

5/23/07 bf: Sent ttf letter to: Doug Weinstein Royal Summit Owners Corp. 310 West 86th St., New York, NY 10024

8/29/07 On 8/27/07, received letter from Mark Salamack of Petroleum Tank Cleaners. Tank failure was due to a fill line failure. Fill line was installed inside an old coal chute and no contamination was found other than the product that leaked down onto the floor. Fill line was replaced. Tank was retested and passed. Contamination on the floor and wall was cleaned up. Obtained 4 soil samples from floor of tank room. No excessive contamination found. NFA. bf



**Map Identification Number 72**      **204936; NE W 77 ST COLUMBUS AV**  
 NE W 77 ST COLUMBUS AV

**Spill Number: 0890009**

**Close Date: 03/15/2007**  
 TT-Id: 520A-0220-200

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 79 feet to the SW\*

ADDRESS CHANGE INFORMATION

Revised street: COLUMBUS AVE / W 77TH ST  
 Revised zip code: 10024

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Responsible Party  
 Caller Name:  
 DEC Investigator: Unassigned

Spiller: ERT DESK – CON EDISON  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: ERT DESK

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 03/15/2007 |                     | UNKNOWN        |                         |                     |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIELECTRIC FLUID | PETROLEUM      | 0.04             | GALLONS | 0.00               | GALLONS | UTILITY              |

Caller Remarks:

M51919 – NE W 77 ST COLUMBUS AV --- INSULATUM Closed: Agency Approval Not Required

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 73**      **51 WEST 81ST ST**  
 51 WEST 81ST ST

NEW YORK, NY

**Spill Number: 9612844**

**Close Date: 12/17/2004**  
 TT-Id: 520A-0092-392

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 157 feet to the NNE\*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                                  |                                            |                                      |
|--------------------------------------------------|--------------------------------------------|--------------------------------------|
| Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER | Spiller: UNKNOWN                           | Spiller Phone:                       |
| Notifier Type: Tank Tester                       | Notifier Name: PATRICK –                   | Notifier Phone: (212) 595-0446       |
| Caller Name: BOB DECK                            | Caller Agency: PETROLEUM TANK CLEANERS     | Caller Phone: (718) 624-4842         |
| DEC Investigator: JMKRIMGO                       | Contact for more spill info: PATRICK CLARK | Contact Person Phone: (212) 595-0446 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/29/1997 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

MR CLARK DISCOVERED OIL IN HIS SUMP PIT AND SMELL OF OIL. PETROLEUM TANK CLEANERS UMPED OUT PIT AND ARE REQUESTING DEC CONTACT.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was M TIBBE

5/12/04 –AUSTIN – SPOKE WITH SARA, THE MANAGING AGENT FOR THIS LOCATION (212-319-5000). SHE WANTED TO KNOW HOW TO REQUEST CLOSURE, SO I TOLD HER TO SEND A REPORT IN DESCRIBING THE CLEAN UP, AND DOCUMENTATION THEREOF, AND PHOTOS SHOWING THE RESULTS. SHE WILL FOLLOW UP AND SEND INFO TO ME. – END

12/17/04. J.Krimgold reviewed documentation submitted by Rudd Realty (212-319-5000) in their letter dated December 3, 2004. According to the letter, oil in sump pit originated from the leaky aboveground fill line located right above sump pit. All was cleaned up. Pipe was replaced. Pix and Manifests included. NFA letter.

|                                                                                    |                                              |                              |                               |
|------------------------------------------------------------------------------------|----------------------------------------------|------------------------------|-------------------------------|
| <b>Map Identification Number 74</b>                                                | <b>ONE GALLON FUEL OIL SPILL ON CONCRETE</b> | <b>Spill Number: 1510616</b> | <b>Close Date: 02/24/2016</b> |
|  | 101 WEST 78TH STREET                         | NEW YORK, NY                 | TT-Id: 520A-0313-273          |

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 164 feet to the WSW\*

ADDRESS CHANGE INFORMATION

Revised street: 101 W 78TH ST  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: JBVOUGHT

Spiller: 101 W 78TH LLC  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: MARK RISHE

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: 212 634 8927

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/01/2015 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #4 FUEL OIL      | PETROLEUM      | 1.00             | GALLONS | 1.00               | GALLONS | IMPERVIOUS SURFACE   |

Caller Remarks:

Caller advised older spill under 1 gal spilled onto concrete. Unknown contributing factor. Clean up is complete. Caller was advised by Jeff Vought to call in the spill.

DEC Investigator Remarks:

2/23/16–Vought–Received call from and spoke to Mark Rishe around time of spill. Rishe provided spill specifics and spill did not meet five Spills Notification requirements. Rishe however wanted DEC documentation that a spill report was not required and Vought noted that the only method of documenting was via the Spills Database and hence a Spill needed to be called in IF they wanted a written response. Vought received email dated 2/1/16 from:

Marc Rishe First Service Residential 622 Third Avenue 15th Floor New York, NY 10017 Email:marc.rishe@fsresidential.com Ph:(212)634–8927

Email noted Mr. Vought, thank you for speaking with me. As discussed, I reported a spill at the above location to the hotline. In October, there was a small amount of oil noticed on the concrete by the oil tank. A clean up firm (documents attached) was dispatched to clean and degrease the concrete where the oil was located. The oil was not near nor did it come into contact with any sewer drain on the premises. Please let me know if you have any further questions.

2/24/16–Vought–Added Riteway invoice and Approved Oil letter attached to email above to D2 in one document and reviewed:

Riteway Tank Maintenance Invoice – 10/30/15. Customer was Approved and invoice noted clean tank room of debris and wiped down tank/clean up old spill

Approved Oil Company (Eric Sutphen) letter to Mr. Robert Swiderski–11/9/15. Letter noted On October 29th, 2015, I retained the services of Riteway Tank Maintenance as per your request to inspect the tank room at 101 west 78th Street in New York City. The tank room was said to have less than a gallon of oil on the floor that accumulated from miscellaneous piping work previously completed and some debris that had to be removed as well. Riteway cleaned the room and properly and degreased the room as well to

ensure it was oil and odor-free.

Spill closed by Vought due to minimal spill on concrete and no impact to soil, groundwater, drains. Spill closure letter sent to Marc Rishe via email and via US Mail at address above. Vought also added closure letter to D2.

**Map Identification Number 75** **SERVICE BOX 4414** **Spill Number: 0401022** **Close Date: 07/20/2004**  
 35 WEST 81ST ST MANHATTAN, NY TT-Id: 520A-0091-517

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 172 feet to the NE\*

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                            |                                          |                                      |
|----------------------------|------------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN   | Spiller: BILL MURPHY – SERVICE BOX 4414  | Spiller Phone: (212) 580-6763        |
| Notifier Type: Other       | Notifier Name: BILL MURPHY               | Notifier Phone: (212) 580-6763       |
| Caller Name: BILL MURPHY   | Caller Agency: CONED                     | Caller Phone: (212) 580-6763         |
| DEC Investigator: JHOCONNE | Contact for more spill info: BILL MURPHY | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 04/29/2004 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 3.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

about 3 g gallons of fuel was spilled into about 20 gallons of water. took samples pcb,id,and flashpoint.clean up pending test results con ed reference# – 153134

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL e2mis no. 153134:

Approx. 3 gal. of fuel oil and 20 gals of water in sb 14414. Source and cause of spill is unknown. Liquid Samples will be taken for pcb, id, and flash point from the spill.

Lab Sequence Number: 04-03262-001: TOTAL PCB 2 ppm

Lab Sequence Number: 04-03263-001: Analysis indicates the presence of a substance similar to a light fuel oil.

4/29/04 21:28 Received a change in lab results, Notice of Change of Sample Matrix for PCB: Sample ID 04-03262-00, Lab Sequence Number: 04-03262-001: TOTAL PCB: 2 ppm NOTE: The chain-of-custody indicated the sample matrix as a LIQUID. Analysis determined the presence of oil in the sample and the sample was analyzed as an OIL.

Update- R.Saladino,620, @ 0700hrs. Flash Point result > 140 Deg F. Reported on LSN- 04-03262-002.

UPDATE: 04/30/ Pete Mulholland #18565 ogs reported that cleanup was completed at 13:00 hrs. Source of spill: Unknown, double washed with slix, removed one gal of oil, 150 gal of water with tank truck, removed tag #28761, removed 3 bag of ppe & debris from service box.

**Map Identification Number 76**      **118 W 79TH ST/MANHATTAN**      **Spill Number: 8905449**      **Close Date: 09/02/1989**  
 118 WEST 79TH STREET      NEW YORK CITY, NY      TT-Id: 520A-0091-721

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 262 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                 |                              |                              |
|---------------------------------|------------------------------|------------------------------|
| Source of Spill: UNKNOWN        | Spiller:                     | Spiller Phone:               |
| Notifier Type: Affected Persons | Notifier Name:               | Notifier Phone:              |
| Caller Name: MARGARET LOKE      | Caller Agency: CITIZEN       | Caller Phone: (212) 874-7752 |
| DEC Investigator: SIGONA        | Contact for more spill info: | Contact Person Phone:        |

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 09/02/1989 | 09/02/1989          | UNKNOWN        | UNKNOWN                 | NO                  |

| Material Spilled | Material Class     | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|--------------------|------------------|---------|--------------------|---------|----------------------|
| ASBESTOS         | HAZARDOUS MATERIAL | -1.00            | UNKNOWN | 0.00               | UNKNOWN | SOIL                 |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 77**

**GURBUZ RESIDENCE**

**Spill Number: 9614218**

**Close Date: 10/31/2003**



101 WEST 81ST ST APT 103

NEW YORK, NY

TT-Id: 520A-0097-832

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 293 feet to the N

**ADDRESS CHANGE INFORMATION**

Revised street: 101 W 81ST ST  
 Revised zip code: 10024

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Affected Persons  
 Caller Name: EGE GURBUZ  
 DEC Investigator: JMKRIMGO

Spiller: UNKNOWN  
 Notifier Name: EGE GURBUZ  
 Caller Agency: CITIZEN  
 Contact for more spill info: ABOVE

Spiller Phone:  
 Notifier Phone: (212) 769-8929  
 Caller Phone: (212) 769-8929  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Unable or Unwilling RP - DEC Field Response - DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/06/1997 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | AIR                  |

**Caller Remarks:**

CALLER SMELLING OIL TYPE FUMES FOR APROX 2 MONTHS ON AND OFF NOW ONLY IN BEDROOM  
 OCCASIONALLY GETS HEADACHES AND FEELS SICK REQUEST CALLBACK TONIGHT BLDG SUPER GAVE HER THE RUN-AROUND

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was KRIMGOLD MULQUEENM INSPECTED AND FOUND DEFINITE PETROLEUM ODOR IN RESIDENCE. BAD ODOR COMING FROM LOWER BEDROOM CLOSET UPON INSPECTION ON 3/06/97. RESIDENT HAS HAD PROBLEM SINCE MOVING IN, APPROX. 2 MONTHS AGO. NO EVIDENCE OF STAINING. FILL PIPES AND VENT PIPES ADJACENT TO RESIDENT. CONTACT IS:

BUILDING MANAGER: 718 229-2878

212 362-5108

PROBLEM IS COMING FROM SUBSURFACE PLUME FROM NYPD, AND IS BEING HANDLED BY DGS MONITOR.

**Map Identification Number 78** **SPILL NUMBER 0401041** **Spill Number: 0401041** **Close Date: 04/29/2004**  
 32 WEST 82ND ST MANHATTAN, NY TT-Id: 520A-0091-518

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 327 feet to the NE

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: PASCAL,NICK Spiller Phone: (201) 489-5100  
 Notifier Type: Other Notifier Name: MALLORY GILMORE Notifier Phone: (212) 689-1520  
 Caller Name: MALLORY GILMORE Caller Agency: DEP Caller Phone: (212) 689-1520  
 DEC Investigator: SMSANGES Contact for more spill info: PASCAL,NICK Contact Person Phone: (201) 489-5100

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 04/29/2004 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled | Units  | Quantity Recovered | Units  | Resource(s) Affected |
|-------------------|----------------|------------------|--------|--------------------|--------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 0                | POUNDS | 0                  | POUNDS | SOIL                 |

Caller Remarks:  
 AN UNKNOWN AMOUNT OF PETROLEUM WAS SPILLED. SPILL HASNT BEEN CLEANED UP

**DEC Investigator Remarks:**  
 Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SANGESLAND duplicate to spill # 0401035

**Map Identification Number 79** **SPILL NUMBER 0313030** **Spill Number: 0313030** **Close Date: 03/05/2004**  
 31 WEST 76TH STREET NEW YORK, NY TT-Id: 520A-0091-497

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 338 feet to the SSW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                            |                                             |
|-----------------------------------|--------------------------------------------|---------------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller:                                   | Spiller Phone:                              |
| Notifier Type: Citizen            | Notifier Name: GEORGE MILLER               | Notifier Phone: (212) 455-7065              |
| Caller Name: GEORGE MILLER        | Caller Agency:                             | Caller Phone: (212) 455-7065                |
| DEC Investigator: JMKRIMGO        | Contact for more spill info: GEORGE MILLER | Contact Person Phone: (212) 455-7065 ext. V |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/26/2004 |                     | OTHER          | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | AIR                  |

Caller Remarks:

CALLER STATES HE BELIEVES THE ODOR IS COMING FROM HIS NIEGHBORS HOUSE: IF YOU CALL OR GO TO HIS HOME YOU CAN SMELL IT: HAS BEEN AROUND 7-10 DAYS, OIL CO. CHECKED OUT CON ED CAME , BUT STILL STRONG ODOR:

NIGHT TIME 212-580-6065

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was KRIMGOLD 2/27/04. J.Krimgold at site. Met with Charlie from Ambassador Fuel. They provide maintenance and oil delivery for 33 West 76 street (adjacent property). No petrol. odor was found in the basement or ground floor. However, as a precautionary measure Ambassador Fuel will replace vent line which close proximity to the adjacent building may cause odor during delivery.

3/4/04. J.Krimgold spoke to George (Ambassador Fuel) 718-585-6200. He stated that a vent line was replaced and relocated further away from adjacent building and a fill line was dug out and replaced with a new one. No contamination was found during excavation. NFA.

**Map Identification Number 80** **ENNISMORE APARTMENTS INC** **Spill Number: 0411433** **Close Date: 08/23/2006**  
 124 WEST 79TH ST MANHATTAN, NY TT-Id: 520A-0091-578

**MAP LOCATION INFORMATION**  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 362 feet to the W

**ADDRESS CHANGE INFORMATION**  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: GARY – S J FUEL Spiller Phone: (718) 855-6060  
 Notifier Type: Responsible Party Notifier Name: GARY Notifier Phone: (718) 855-6060  
 Caller Name: ANTHONY LARA Caller Agency: PETROLIUM TANK CLEANERS Caller Phone: (718) 984-3978  
 DEC Investigator: qxabidi Contact for more spill info: MR. ARI PAUL Contact Person Phone: (212) -87-3-4919

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/22/2005 |                     | OTHER          | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 2500             | GALLONS | 0                  | GALLONS | SOIL                 |

**Caller Remarks:**

Caller reports the fill line was disconnected. Fuel was pumped into the basement. Unknow if any got into any drains or sewers. Callers company will be doing the cleanup.

**DEC Investigator Remarks:**

1/25/04 tiple updating/// 2500 gal in tank room and some in basement, PTC conducted initial cleanup Sat AM before the brunt of the Blizzard. work is continuing 1/25/05.

08/07/06: This spill is transferred from Mr. Koon Tang to Q.Abidi. Called Gary (718)855-6060 regarding spill information and left message to call me back. -QA

08/23/06: This spill occured in the basement of apartment building #6 oil 2,500 gallons oil spill caused by disconnected fill line notified to SJ Fuel Co. They hired Petroleum Tank Cleaners for clean up the spill. Fill line replaced and spill is cleaned up. So according to the letter of Mr. Peter D'Arco. The tank and fill line are located in the basement above the ground. There were no cracks in the basement floor. Based on the information staff closed the spill. -QA

**Map Identification Number 81** **20 RECINCT NYPD –DDC**  
 120 WEST 82ND STREET

MANHATTAN, NY

**Spill Number: 9512927**

**Close Date: 01/26/1996**  
 TT-Id: 520A-0101-368

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 416 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
 Notifier Type: Responsible Party  
 Caller Name: MURALI SAGAR  
 DEC Investigator: WEISSMAN

Spiller: DESK SSGT – NYC POLICE 20TH PCT  
 Notifier Name: MURALI SAGAR  
 Caller Agency: TONE TANK & PUMP  
 Contact for more spill info: DESK SSGT

Spiller Phone: (516) 678-5115  
 Notifier Phone: (718) 331-5003  
 Caller Phone: (718) 331-5003  
 Contact Person Phone: (516) 678-5115

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors),  
 contamination of drinking water supplies, or significant release to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/16/1996 |                     | OTHER          | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE         | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

tank removal, contaminated soil. see 9512346

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 82** **BET. COLUMBUS/ AMSTERDAM**  
 118 W. 76TH ST.

NEW YORK, NY

**Spill Number: 0511030**

**Close Date: 12/21/2005**  
 TT-Id: 520A-0095-762

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 520 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: UNKNOWN NAME – UNKNOWN Spiller Phone:  
 Notifier Type: Local Agency Notifier Name: UNKNOWN CALLER Notifier Phone: ( ) –  
 Caller Name: SEAN DONOHUE Caller Agency: NYC DEP Caller Phone: (212) 490-4161  
 DEC Investigator: JXZHAO Contact for more spill info: SEAN DONOHUE Contact Person Phone: (212) 490-4161

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/20/2005 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                   |                | Units            |         | Units              |         |                      |
| UNKNOWN PETROLEUM | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

Oil spill. All other info unknown.

DEC Investigator Remarks:

Building is abandoned and owned by the city of New York since 1976. Doors & windows are sealed.

Spill report was called in anonymously

**Map Identification Number 83** **SPILL NUMBER 0313954** **Spill Number: 0313954** **Close Date: 03/24/2004**  
 120 WEST 76TH ST. MANHATTAN, NY TT-Id: 520A-0091-502

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 533 feet to the SW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: DAVID LAVONTE – W. SIDE INSTITUT SYNAGOGU Spiller Phone: (212) 877-7652  
 Notifier Type: Other Notifier Name: SEAN DONOHUE Notifier Phone: (212) 689-1520  
 Caller Name: SEAN DONOHUE Caller Agency: NY DEP Caller Phone: (212) 689-1520  
 DEC Investigator: MXTIPPLE Contact for more spill info: MS. SAMUELS Contact Person Phone: (212) 580-6513

|                   |                                                                                                                                                                             |                  |                         |                    |                     |                      |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| Category:         | Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters. |                  |                         |                    |                     |                      |
| Class:            | Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency                                                               |                  |                         |                    |                     |                      |
| Spill Date        | Date Cleanup Ceased                                                                                                                                                         | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
| 03/22/2004        |                                                                                                                                                                             | OTHER            | NO                      |                    | NO                  |                      |
| Material Spilled  | Material Class                                                                                                                                                              | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM                                                                                                                                                                   | 0                | POUNDS                  | 0                  | POUNDS              | SOIL                 |

Caller Remarks:

unknown oil spilled possibly during delivery by oil company, possibly spilled into catch basin, no cleanup in progress yet, dwelling is apartment building

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIPPLE 3/22/04 tipple responded//the spill is in front of the West Side Institutional Synagogue apparently from an overflow of the tank spilling out the vent line. The building, sidewalk and roadway has been impacted. Tipple contacted David Lavonte at 212-877-0774 and was able to track down the oil company. Hess oil has the contract to supply the synagogue with oil and will clean the impacted areas in the AM.

3/24/04 – AM – Sangesland inspected –spill cleaned Spill Closed

|                                                                                    |                                             |                                      |                              |                               |
|------------------------------------------------------------------------------------|---------------------------------------------|--------------------------------------|------------------------------|-------------------------------|
| <b>Map Identification Number 84</b>                                                | <b>MANHOLE 57249</b>                        |                                      | <b>Spill Number: 0011975</b> | <b>Close Date: 07/11/2001</b> |
|  | 211 CENTRAL PARK WEST                       | MANHATTAN, NY                        |                              | TT-Id: 520A-0097-032          |
| <b>MAP LOCATION INFORMATION</b>                                                    |                                             | <b>ADDRESS CHANGE INFORMATION</b>    |                              |                               |
| Site location mapped by: PARCEL MAPPING (2)                                        |                                             | Revised street: NO CHANGE            |                              |                               |
| Approximate distance from property: 542 feet to the ENE                            |                                             | Revised zip code: 10024              |                              |                               |
| Source of Spill: UNKNOWN                                                           | Spiller: UNKNOWN                            | Spiller Phone:                       |                              |                               |
| Notifier Type: Affected Persons                                                    | Notifier Name: JOHN MORAN                   | Notifier Phone:                      |                              |                               |
| Caller Name: ANTHONY NATALE                                                        | Caller Agency: CON EDISON                   | Caller Phone: (212) 580-6763         |                              |                               |
| DEC Investigator: OKWUOHA                                                          | Contact for more spill info: ANTHONY NATALE | Contact Person Phone: (212) 580-6763 |                              |                               |

|           |                                                                                                                                                                             |  |  |  |  |  |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| Category: | Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters. |  |  |  |  |  |
| Class:    | Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency                                                                         |  |  |  |  |  |

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 02/07/2001        |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | 1.00             | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

## Caller Remarks:

2 PINTS OF UNKNOWN OIL ON 10 GALLONS OF WATER. CLEAN UP PENDING ANALYZES. NO EFFECT TO OUTSIDE PROPERTY.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

**The following DEC Investigator Remarks were available prior to 1/1/2002:**

E2MIS Notes 2/7/01: 2 pints of unknown oil with 10 gallons of water in manhole. No waterways affected. No smoke or fire. No environmental or outside impact. An analysis is not possible due to the insufficient amount of material recovered.

LSN 01-01292

Type unkonwn, PCb count <1ppm

Liquid amount 100gals water/oil

Walls and floor were double washed with degreaser. Spill source unknown.

**Map Identification Number 85**

**7 WEST 82ND ST/MANHATTAN**  
7 WEST 82ND STREET

NEW YORK CITY, NY

**Spill Number: 8903584**

**Close Date: 07/11/1989**

TT-Id: 520A-0091-714

## MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 617 feet to the ENE

## ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
Notifier Type: Citizen  
Caller Name: P O LEO  
DEC Investigator: TOMASELLO

Spiller: UNKNOWN  
Notifier Name:  
Caller Agency: USCG  
Contact for more spill info:

Spiller Phone:  
Notifier Phone:  
Caller Phone: (212) 668-7938  
Contact Person Phone:

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 07/10/1989       | 07/11/1989          | UNKNOWN          | UNKNOWN                 |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN MATERIAL | OTHER               | -1.00            | UNKNOWN                 | 0.00               | UNKNOWN             | SOIL                 |

Caller Remarks:

NRC NOTIFIED, REFER TO SPILL # 8903548. 7/11/89 : 0900- SERGIO MATOS OF DEP ASBESTOS UNIT WILL HANDLE.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 86** **TOWNHOUSE** **Spill Number: 0011330** **Close Date: 04/08/2009**  
 144 WEST 82ND ST NEW YORK CITY, NY TT-Id: 520A-0098-746

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 621 feet to the NNW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                            |                                            |                                      |
|----------------------------|--------------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN   | Spiller: UNKNOWN FOR NOW                   | Spiller Phone:                       |
| Notifier Type: Other       | Notifier Name: SAME                        | Notifier Phone:                      |
| Caller Name: STEVEN ABRAMS | Caller Agency: FOUNTAINHEAD CONSTRUCTION   | Caller Phone: (212) 724-7018         |
| DEC Investigator: SFRAHMAN | Contact for more spill info: STEVEN ABRAMS | Contact Person Phone: (212) 724-7018 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/17/2001       |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 0                | GALLONS                 | 0                  | GALLONS             | SURFACE WATER        |

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**Caller Remarks:**

THEY WERE DIGGING AND FOUND WATER WITH OIL APPEARS OLD SPILL.

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**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was KRIMGOLD 01/29/01

Brownstone: basement 19 by 55 feet.

broke through concrete for new elevator shaft and encountered oil/water. Went back, no oil. They will do borings around the hole to delineate oil/water. No evidence of tank. Building gas powered. May underpin entire basement and lower floor a few feet. He will hire contractor who will keep me apprised of situation.

01/26/04

Transferred from Rommelto Austin 02/17/04: Reassigned from AUSTIN to KRIMGOLD. To Albany

9/7/06 – Austin – Assigned from Albany to Region 2 staff (Rahman) for review and closure – end

03/31/09 No documents available in edocs. Unsure if borings were done. Letter was sent to

Wayne C Wilkey 144 West 82nd Street New York, NY 10024(sr)

04/08/09 Rec'd letter response from Wayne Wilkey. There was no tank on that property when the spill was called in. Petroleum odor was discovered from a pit excavated for an elevator. Athenica submitted soil samples for testing. Concentrations were below RSCO. Soil with petroleum odor was disposed by 'Industrial Waste Technologies'. As per the letter, the smell of petroleum odor could be coming from residual oil left after an old heating oil tank had been removed. Case closed. (sr)

**Map Identification Number 87****SPILL NUMBER 0107348**

160 WEST 78TH ST

NEW YORK, NY

**Spill Number: 0107348****Close Date: 10/01/2002**

TT-Id: 520A-0098-714

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 667 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: UNKNOWN Spiller Phone:  
 Notifier Type: Police Department Notifier Name: HAROLD CASSEMERE Notifier Phone: (212) 580-6411  
 Caller Name: HAROLD CASSEMERE Caller Agency: NYC POLICE 20TH PRICENT Caller Phone: (212) 580-6411  
 DEC Investigator: MXTIPPLE Contact for more spill info: HAROLD CASSEMERE Contact Person Phone: (212) 580-6411

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/17/2001 |                     | OTHER          | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| UNKNOWN MATERIAL | OTHER          | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

CALLER STATES THEY FOUND A SUSPICIOUS CONTAINER THAT IS LABELS PISONOUS – FIRE DEPT AND HAZ MAT ON SCENE – AWAITING DEC REP TO RESPOND AND PICK UP THE CONTAINERS – 917-548-8988 IS THE CALLERS CELL NUMBER ON THE SCENE

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIPPLE Hazardous materials lead is the DEP HAZMAT TEAM

**Map Identification Number 88** **AMERICAN MUSEUM HISTORY** **Spill Number: 9704989** **Close Date: 12/31/1997**  
 81ST ST & CENTRAL PK WEST NEW YORK CITY, NY TT-Id: 520A-0097-030

MAP LOCATION INFORMATION  
 Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 675 feet to the E

ADDRESS CHANGE INFORMATION  
 Revised street: W 81ST ST / CENTRAL PARK W  
 Revised zip code: 10024

Source of Spill: COMMERCIAL VEHICLE Spiller: SAME – MORRIS DIESEL Spiller Phone: (212) 484-0300  
 Notifier Type: Responsible Party Notifier Name: SAME Notifier Phone:  
 Caller Name: CLAUDE WUYTACK Caller Agency: MORRIS DIESEL Caller Phone: (212) 496-3362  
 DEC Investigator: MMMULQUE Contact for more spill info: SAME Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 07/25/1997       |                     | OTHER            | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| DIESEL           | PETROLEUM           | 70.00            | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

they had a pile driver roll over due to the soft ground there they are at the construction area.diesel went onto the ground into a puddle of water.ab oil services ltd enroute to clean up spill phone 516-567-6545

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was MULQUEEN NO INQUIRIES, A & B PUMP OUT HOLE TONIGHT CONTAMINATED SOIL TO BE EXCAVATED.

**Map Identification Number 89**  **79TH ST TRANSVERSE** **Spill Number: 9105945** **Close Date: 09/03/1991**  
 79TH ST TRANSVERSE NYC, NY TT-Id: 520A-0090-007  
 CENTRAL PK W

MAP LOCATION INFORMATION  
 Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 675 feet to the E

ADDRESS CHANGE INFORMATION  
 Revised street: W 81ST ST/CENTRAL PARK W  
 Revised zip code: 10024

Source of Spill: UNKNOWN Spiller:  
 Notifier Type: Local Agency Notifier Name:  
 Caller Name: LIONEL MCKENZIE Caller Agency: NYCDEP Spiller Phone:  
 DEC Investigator: WILSON Contact for more spill info: Contact Person Phone: (718) 595-4654

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 08/30/1991        | 09/03/1991          | UNKNOWN          | UNKNOWN                 |                    | NO                  |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | -1.00            | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

CAUSED TRAFFIC ACCIDENT. CONTAINED ON ROADWAY. SANITATION INVOLVED.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 90**

**SPILL NUMBER 0101436**

**Spill Number: 0101436**

**Close Date: 07/17/2003**



CENTRAL PARK W/ W 81ST ST

MANHATTAN, NY

TT-Id: 520A-0090-726

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 675 feet to the E

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Other  
 Caller Name: BILL MURPHY  
 DEC Investigator: JHOCONNE

Spiller: UNKNOWN  
 Notifier Name: MR PELIGRINO  
 Caller Agency: CON ED  
 Contact for more spill info: BILL MURPHY

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (212) 580-6763  
 Contact Person Phone: (212) 580-6763

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 05/07/2001 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 8.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

oil found in an excavation for telecommunications duct installation. 3rd party spill. clean up pending. con ed 136-902

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL Con Ed e2mis #136902:

5/07/01 11:55 hrs. James Delia, Inspector for Construction Mgmt., reported at 10:41 hrs. that Kevin McCormack of RCI (a Contractor) found at 10:25 hrs. approx. 8 gallons of an unknown oil and no water in an excavation located on Central Park West

306 ft. south of the south corner of West 81 Street, 1 ft. east of the west corner of Central Park West. The contractor was installing telecommunication ducts when he discovered the oil.

NOTE: James Delia will be used as the Finder since the contractor's name is not in our database. Contractor believes that the unknown oil is possibly fuel oil. The source and cause of the spill is unknown. No samples taken. No cleanup action except all work was stopped. The Environmental Desk (E.D.) was asked to call the Chem Lab to take samples. The E.D. requested that samples be taken for PCB and Oil Id.

UPDATE @ 17:03 hrs. Environmental Desk (E.D.) made arrangements for Chemist to take samples tomorrow, 5/08/01 at 07:00 hrs.. Samples to be taken for PCB, Oil ID and Flash Point. E.D. made recommendation to Construction Mgmt. personnel to have excavation barricaded and made safe to prevent unauthorized access. It was made clear to James Delia that no one should be allowed access to this excavation until the results of the lab analysis reports have been received.

05/06/03 8:45hrs – As per James Delia on 05/02/03, the clean up was complete in about two weeks from the date of test results and 4 drums of non haz oily soil was transported by Astoria transportation for disposal. This incident is being closed – updated by Bharat Mukhi, M&C – EHS.

**Map Identification Number 91** **SPILL NUMBER 9914163** **Spill Number: 9914163** **Close Date: 03/16/2000**  
 W 77TH ST/CENT PARK W MANHATTAN, NY TT-Id: 520A-0093-091

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 676 feet to the SSE

ADDRESS CHANGE INFORMATION

Revised street: W 77TH ST / CENTRAL PARK W  
 Revised zip code: 10024

|                                   |                                          |                                      |
|-----------------------------------|------------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN          | Spiller:                                 | Spiller Phone:                       |
| Notifier Type: Federal Government | Notifier Name: GWEN HAWKINS              | Notifier Phone: (718) 595-6777       |
| Caller Name: GWEN HAWKINS         | Caller Agency: DEP                       | Caller Phone: (718) 595-6777         |
| DEC Investigator: JMROMMEL        | Contact for more spill info: MISS LAYTON | Contact Person Phone: (212) 753-5245 |

Category: Investigation indicates there was no spill.  
 Class: Any Type of RP, Including No RP – DEC Field Response – Corrective Action Not Required or Not Possible

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 03/15/2000       |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN MATERIAL | OTHER               | 0                | GALLONS                 | 0                  | GALLONS             | SURFACE WATER        |

Caller Remarks:

unknown chemical sheen on the pond

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was ROMMEL 3/15/00 Spoke to DEP. They received the report from Miss Laughton, a citizen. No one from DEP is responding. 3/16/00 Inspected pond. No sheen. Spill Closed. JMR

**Map Identification Number 92**      **BASMENT**      **Spill Number: 0708989**      **Close Date: 11/19/2007**  
 148 W 76TH ST      MANHATTAN, NY      TT-Id: 520A-0211-139

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 686 feet to the WSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING      Spiller: GARCIA, CESAR – UNKNOWN      Spiller Phone: (212) 689-1520  
 Notifier Type: Other      Notifier Name:  
 Caller Name:      Caller Agency:  
 DEC Investigator: hrpatel      Contact for more spill info: GARCIA, CESAR      Contact Person Phone: (212) 689-1520

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 11/17/2007 |                     | OTHER          | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

caller reports spill due to removal of old fuel tank. bldg evac and fdny o/s and left.

DEC Investigator Remarks:

11/19/07-Hiralkumar Patel. spoke with manhattan FDNY. as per FDNY, building was evacuated due to smoke for unknown reason, but they didn't noticed any oil spill.

insufficient information. case closed.

**Map Identification Number 93** **163 WEST 76TH ST/MANH**  
 163 WEST 76TH STREET

NEW YORK CITY, NY

**Spill Number: 9002134**

**Close Date: 11/14/1991**  
 TT-Id: 520A-0098-719

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 757 feet to the WSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Local Agency  
 Caller Name: TOM THOMAS  
 DEC Investigator: SULLIVAN

Spiller:  
 Notifier Name:  
 Caller Agency: NYCDEP  
 Contact for more spill info:

Spiller Phone: (212) 787-3829  
 Notifier Phone:  
 Caller Phone: (212) 669-8928  
 Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 05/23/1990 | 11/14/1991          | UNKNOWN        | UNKNOWN                 | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | -1.00            | UNKNOWN | 0.00               | UNKNOWN | SEWER                |

Caller Remarks:

DEC (SULLIVAN) TO INVESTIGATE.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 94** **55 W 74 ST**  
 55 W 74TH ST

MANHATTAN, NY

**Spill Number: 0805106**

**Close Date: 08/06/2008**  
 TT-Id: 520A-0220-645

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 778 feet to the SSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Responsible Party  
 Caller Name:  
 DEC Investigator: vszhune

Spiller:  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: RAE BARLOW

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (212) 580-0443

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/02/2008 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

OIL SPILL IN FRONT OF BUILDING RUNNING DOWN STREET. SOURCE UNKNOWN.

DEC Investigator Remarks:

08/02/08–Zhune spoke to Rai Barlow (212) 580–0443. I saw spill on the street. It does not smell oil but look like oil. It have a brown color. I asked her to go outside and check it because, probably it was wash out with the heavy rain . She said I will go out in an hour call me back.

Zhune called back Rai and she said There is no much anymore, the spill was gone with the rain

08/04/08–Sharif Rahman visited the site. He did not see any spill on the street

**Map Identification Number 95** **DECLERCQ RESIDENCE** **Spill Number: 0607638** **Close Date: 10/17/2006**  
 48 WEST 84TH STREET MANHATTAN, NY TT-Id: 520A–0090–340

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 784 feet to the NE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                  |                                             |                                      |
|----------------------------------|---------------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN         | Spiller: NYC DEP HAZMAT – UNKNOWN           | Spiller Phone: (718) 595–4784        |
| Notifier Type: Police Department | Notifier Name:                              | Notifier Phone:                      |
| Caller Name:                     | Caller Agency:                              | Caller Phone:                        |
| DEC Investigator: JBVOUGHT       | Contact for more spill info: NYC DEP HAZMAT | Contact Person Phone: (718) 595–4784 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 10/04/2006       |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN MATERIAL | OTHER               | 0                | GALLONS                 | 0                  | GALLONS             | AIR                  |

Caller Remarks:

CALLER REPORTS A CALL COMING INTO TO HAZMAT BY MATTHEW DECLERCQ AT 212-496-9607 COMPLAININ OF A STRONG OIL SMELL IN THE AREA OF HIS RESIDENCE, POSSIBLY COMING FROM HIS NEIGHBOR AT THIS LOCATION:

DEC Investigator Remarks:

10/4/06-Vought-Off hours responder. Performed site visit with DEC Zhune due to vapor complaint. Vought called Mathew de Clercq who stated that he lived at 50 West 48th Street and he was smelling strong petroleum vapors from the next door residence that was currently vacant and that had a prior oil spill (see closed spill #0650371). When Vought and Zhune arrived on site, resident of basement of 50 West 48th Street stated that he had not smelled any petroleum fumes in since previous winter. Inspection of basement of 50 West 84th Street was performed and no USTs, old fills, oil stains, vapors were noted. 50 West 84th Street currently using natural gas for heating. Vought and Zhune also interviewed residents at 46 West 48th Street (Douglas King) and they had also not detected petroleum odors. Ling and King were provided with DEC information in case they detected odors in the future. Douglas King provided contact information for owner of 48 West 84th Street:

Suzanne R Holmes 790 Riverside Drive #10E New York, NY 10032 Phone:(212)368-8880

Zhune and Vought inspected 48 West 84 via a small hole in basement window. Petroleum odors were noted emanating from the basement. A portion of a suspected 275-gallon #2 fuel oil AST was visible and had some oil staining. A portion of the poured concrete floor was also visible with no signs of spillage.

10/5/06-Vought-Received call from Bob Ling and realtors contact info for 48West84th Street is John Bowe(646-613-2711) and Stan Ponte(646-613-2756). Vought called Holmes to require visit and send soil contamination letter. Vought called back Suzanne Holmes and informed her of odor complaint and she stated that you are full of shit and hung up on me. Vought called her back and left message that if call back was not received in 10 minutes case would be referred to ECO's for enforcement. Vought referred case to ECO's for enforcement. Note following violations: Navigation Law: Article 12 Section 173-Prohibition of discharge, Article 12 Section 176-Removal of prohibited discharge. Vought called Schildwalker (spiller for spill #0650371 Schildwalker-800.642.3546) and number is wrong number. Vought called Mathew deClercq and left message updating him with information. Vought set up appointment with ECO Loriso for 10/10 at 9am at 48 W84th Street. Vought received call from Ling and updated him on site.

10/11/06-Vought. Site visit by Vought with ECO Lorioso to both site and owner's address. Visit to site to confirm presence of odors from basement with ECO. After confirmation of odors, site visit was performed with ECO to residence Suzanne Homes. Holmes

immediately agreed to site access and set up appointment with super (Orlando 917-886-4788). Vought handed her copy of soil contamination letter. Site visit showed stained concrete and some stained debris (dust and dirt on concrete) around two (275-gallon) #2 fuel oil UST and some oil on USTs. Poured concrete floor and no pathways to subsurface. DEC required: 1)closing of basement window 2)Sweeping of oil contaminated dust 3)painting of floor. Vought spoke with Orlando and Holmes regarding requirements and Holmes agreed to send in letter stating such. Vought called Mathew DeClercq and updated him on information and DeClercq informed Vought that window was sealed.

11/17/06-Vought-Received message from Holmes and Orlando that DEC requirements of 1)closing of basement window 2)Sweeping of oil contaminated dust 3)painting of floor were performed. Spill closed by Vought.

**Map Identification Number 96** **MULTI-DWELLING RESIDENCE** **Spill Number: 0203985** **Close Date: 09/18/2002**  
 171 W. 81TH ST MANHATTAN, NY TT-Id: 520A-0097-834

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 814 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: 171 W 81ST ST  
 Revised zip code: NO CHANGE

|                                   |                                             |                                      |
|-----------------------------------|---------------------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: UNKNOWN                            | Spiller Phone:                       |
| Notifier Type: Fire Department    | Notifier Name: UNIT ON SCENE                | Notifier Phone:                      |
| Caller Name: DISPATCHER 476       | Caller Agency: NYC FIRE DEPT                | Caller Phone: (212) 570-4300         |
| DEC Investigator: JXZHAO          | Contact for more spill info: DISPATCHER 476 | Contact Person Phone: (212) 570-4300 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 07/16/2002 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 2500             | GALLONS | 0                  | GALLONS | SOIL                 |

**Caller Remarks:**

SPILL IN BUILDING. NO CALL BACK NEEDED. FD ON SCENE.

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was ZHAO/DEMEO 7/16/2002 - 21:20: Zhao and Demeo responded on

scene off hours. A 5,000 gallon #6 fuel oil AST vaulted in basement. The tank was overfilled, and also leaked from a patch on upper tank. NYC Fire HazMat on scene stopped the leak. There were about 40 gallons oil spilled out in the tank vault from the leaked patch some of them contained in buckets, About 20 gallons oil was found in the building backyard vent pipe area, A puddle in drain in front of the basement door, a couple of spill evidences found on walls along the fillline. – Site superintendent Jesus stated to the DEC representatives and Hess Oil Corp representative that he ordered the 2,500 gallons oil and he was in control of transfer as he was present and pumped the petrometer. – A. L. Eastmont was contracted for removal all tank oil by building representative (we were told that super called contractor). Eastmont went there around 12:00am with a 5,000 gal tanker truck. The pumped oil was let to send back to Hess to be reused. There were about 4,500 gal oil removed from tank.

7/17/2002 – A L Eastmond pumped out the remained oil in the tank.

7/18/2002 and 7/19/2002 – A L Eastmond continues working to remove the pooled product. Ms Zhao has informed the Eastmond site manager Rene Lewis (also Stellar Management) to clean up the spills immediately in the rear of the building the vent area, which has not been done yet. By 3:30pm, information received by a follow-up call to Eastmond manager, A L Eastmont has checked the backyard spill and will clean up ASAP. They will continue to cleaning and testing tank next Monday from their schedual.

7/19/2002 – Work-to-do letter has been sent accompany with PBS NOV to Stellar Management by fax and certified mail.

7/23/02 – A L Eastmond will continue work starting tomorrow for this week. Backyard spill still need to be cleaned up. The DEC will follow up next week.

8/5/2002 – Tank tightness test failed.

8/26/2002 – Tank has been removed last week by New York Combustion. A L Eastmond continued to dig contaminant soil last Friday.

#### Map Identification Number 97



#### PARKING GARAGE

150 WEST 83RD STREET

NEW YORK, NY

Spill Number: 0611800

Close Date: 07/30/2008

TT-Id: 520A-0098-752

#### MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 850 feet to the N

#### ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER

Notifier Type: Other

Caller Name:

DEC Investigator: hrpatel

Spiller: STEVEN – PARKING GARAGE

Notifier Name:

Caller Agency:

Contact for more spill info: STEVEN

Spiller Phone: (516) 576-8844

Notifier Phone:

Caller Phone:

Contact Person Phone: (516) 576-8844

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date        | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |         | Penalty Recommended |         |                      |
|-------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 01/24/2007        |                     | OTHER          | NO                      |         | NO                  |         |                      |
| Material Spilled  |                     | Material Class | Quantity Spilled        | Units   | Quantity Recovered  | Units   | Resource(s) Affected |
| UNKNOWN PETROLEUM |                     | PETROLEUM      | 0                       | GALLONS | 0                   | GALLONS | SOIL                 |

Caller Remarks:

SOIL TESTING SHOWED FULE IN SEVERAL LOCATIONS:

DEC Investigator Remarks:

Sangesland spoke to Steve Malinowski at CA Rich. The property is being sold and he works for the current owner. A phase 1 was done by someone else and identified possible petroleum tanks on site. Steve was hired to do a phase 2 which he started. They did find contaminated soil and hit what he assumes is a buried tank. The property is being sold and will be torn down for redevelopment in the spring (2007). They would like to hold off doing any major remedial work on the site until that time.

CSL sent to current owner: Marc Ravner EZ Group 1220 Broadway – suite 408 NY NY 10001

1/25/07–Vought–Received call and spoke to Malinowski and building will not be torn down but will be rehabilitated in place and foundation will stay in place. Building is four story garage with plans for garage on bottom and top four floors will be gutted and rehabed. Basement is parking garage and some vents present. Geoprobe borings were performed (seven borings) and three appeared contaminated with odors from 3.5–8' with highest PID of 1275ppb. No groundwater encountered in borings. Samples currently being analyzed and further delineation will be performed to decide on remedial action (most likely excavation). Geoprobe performed through tank showed no indications of product other than one inch of sludge. Four vent pipes present and GPR survey performed and pipes connected to tank area. Possibly additional tanks. Second floor. Vought requested site visit for vapor inspection in addition to approval of further delineation.

04/12/07–Vought–Received call from Stephen Malinowski to discuss site. Heavy soil contamination noted under garage floor. Site will be sold once spill closed and site may be developed for residential. No groundwater samples collected to date. RAP will contain contingency to install SSDS if endpoint samples are contaminated. Gym to the right and retail to left. Decision on street well location pending submission of soil endpoint samples and site visit. Malinowski will send in proposed RAP for excavation.

DEC requires: 1)collection of groundwater sample 2)vapor barrier/possible SSDS 3)site visit to inspect excavation before backfill 4)collection of soil endpoints 5)surrounding area site plan.

05/14/07–Vought–File update by Vought.

Phase II Environmental Investigation Report (CA Rich–Stephen Malinowski) dated 3/20/07 and received on 3/22/07. Phase I showed four vent pipes in roof of building, evidence of floor restoration of concrete floor in garage, presence of three abandoned fill

ports with concrete, presence of former dispenser islands and piping. Five soil borings performed on 1/24/07. Report recommends excavation and removal of at least one confirmed UST, excavation of all impacted subsurface soils along with preparation of Health and Safety Plan (HASP). HASP will include provisions for air monitoring and ventilation during removal of USTs. Soil analyticals show: 3900ppb benzene(B1 3.5–4'bg), 4900ppb toluene(B1 3.5–4'bg), 10000ppb ethylbenzene(B1 3.5–4'bg), 32000ppb xylene(B1 3.5–4'bg), (note that B1 9–10'bg was below TAGM 4046 for VOCs and SVOCs), 2800ppb benzene(B2 5–6'bg), 28000ppb toluene(B2 5–6'bg), 130000ppb ethylbenzene(B2 5–6'bg), 770000ppb xylene(B2 5–6'bg), 8000ppb xylene(B2 9–10'bg), 4500ppb 1,3,5-trimethylbenzene(B2 9–10'bg), 13000ppb 1,2,4-trimethylbenzene(B2 9–10'bg), 11000ppb benzene(B5 4.5–5.5'bg), 50000ppb toluene(B5 4.5–5.5'bg), 72000ppb ethylbenzene(B5 4.5–5.5'bg), 280000ppb xylene(B5 4.5–5.5'bg).

Email from CA Malinowski to DEC Vought–4/13/07/ I just wanted to let you know that we checked the NYC website and confirmed that the above–referenced site is not identified with an E–designation .

Remedial Workplan (CA Malinowski) dated 4/19/07 and received on 4/25/07. An approximate 400 square foot area surrounding tank location will be saw cut and excavated. Soils will be segregated and contaminated soil will be disposed of. Excavator has a reach of 8.5 feet and if contamination extends beyond this depth, ramp will be built for excavator to enter excavation. Contaminated soil excavation and removal will continue until all of the impacted soil has been removed, until contamination exceeds the depth capabilities of the equipment, or proximity to load bearing structures (building walls, etc.) precludes further safe excavation. Proposal also includes collection of endpoint samples (five samples). If all contamination cannot be removed then piping for sub–slab venting system into excavation. As per our recent conversation, we understand that based on the extent of the soil contamination observed during the remediation NYSDEC may require the collection of groundwater quality samples. If required the work will be performed as a separate follow–up task to the proposed cleanup activities detailed in this Work Plan .

Email from CA Malinowski to DEC Vought–5/9/07. Please acknowledge that it is okay to proceed with the scope of work .

Email from CA Malinowski to DEC Sangesland–5/9/07/ Request to contact Vought for approval.

5/14/07–Vought–Called CA Malinowski (cell 631–974–5755) and he is onsite and work is beginning today. Vought discussed below requirements and sent letter to above address as per Malinowski.

DEC requires: 1)investigation of remote fill ports and piping 2)PBS registration 3)collection of groundwater samples 4)collection of endpoint samples from limits of excavation as per DER–10 frequency 5)submission of plans for SSDS to DEC if necessary.

Vought sent residential construction soil contamination letter with above requirements and one month due date.

05/16/07–Vought–Received call from Malinowski that UST pull scheduled for 5/18 and DEC site visit requested. Malinowski also submitting letter with more description of SSDS. Vought called Malinowski and requested that DEC site visit be performed upon reaching terminus of excavation. Vought called Malinowski and he will send in plans for SSDS and call DEC Vought upon reaching excavation limits.

05/17/07–Vought–Received plans for SSDS from Malinowski including installation of 4 perforated PVC pipe in 3/4 inch stone, .6 mil vapor barrier under concrete slab. Site plan shows SSDS to be installed around perimeter of UST pad but notes that The actual size of the SSDS to be installed will be directly based upon the extent of the excavation . Vought approves scope of SSDS system however no formal approval issue given as extent of SSDS system not known. <-----

05/22/07–Vought–Received message from CA Rich Malinowski that owners will be onsite today however endpoint samples are not be ready to be collected as further excavation is planned. Vought called and left message for Malinowski to return call to Vought with endpoint sampling date so that a site visit may be scheduled. Vought spoke to CA Malinowski and tanks have been removed and sewer line in east side of excavation but has clean soil. Western most tank had holes and continuing excavation to west. Groundwater in hole previously due to broken sewer pipe. Excavation will continue to the west and the tanks will be removed. Possible fourth tank located (four vents and only three tanks found).

05/24/07–Vought–Site visit by Vought with Malinowski. During excavation activities, a backhoe ran over a can of primer that released vapors into building. Building was ventilated. Supply/return lines for fourth tank were followed approximately 40' to rear of building and UST not found as of yet. UST may be located behind wall in unexplained room (or brick enclosure that has no doors, connecting pipes or indication of tanks). Groundwater present in excavation. DEC required installation of wells to groundwater in excavation and Malinowski will install two groundwater monitoring points (for treatment and/or monitoring). Malinowski also installing four vertical extraction wells and groundwater at depth of 6' below grade. No official plans for property as of yet. Visibly contaminated soil under floor and DEC suggested additional excavation to structural limits. Four endpoint soil samples will also be collected. Remote fill and fourth tank will be investigated using Geoprobe. Pilot test for extraction system will also be run and vapor barrier will be installed in excavation. RAP will be submitted including soil endpoint samples and SSDS by 7/14/07.

8/3/07 – Austin – Transferred from Vought to Patel for further review and action – end

Stephen Malinowski CA Rich Consultants, Inc. Ph. (516) 576–8844 (O)

(631) 974–5755 (C) FAX (516) 576–0093 email: smalinowski@carichinc.com

08/16/07–Hiralkumar Patel. received tank closure report. abstract:

– removed three USTs enclosed in concrete – found contaminated soil under western tank and under fill line for eastern tank – approx. 6 ft bg, water began entering the excavation – installed four 2–inch dia pieces of 20–slot PVC in the perimeter of the western side of the excavation and an additional point beneath the former leaking fuel fill lines – vapor barrier was placed over the entire excavation – endpoint soil samples were collected from the southern, northern and eastern sides of excavation – no endpoint sample collected from western side as that area still contaminated <----- – no further excavation possible – water sample was collected from one of the two–inch dia slotted pipes installed in the western side of the excavation <----- – removed 1,675 gal of contaminated water and 47.28 tons of impacted soil – recommends further soil and groundwater delineation – heavy contamination in sample from north, south and pipe trench area

soil analytical data: -----north-----south-----pipe trench  
 Benzene-----1,700-----1,400-----4,000 Toluene-----14,000-----55,000-----50,000  
 Ethylbenzene-----9,700-----110,000-----68,000 Xylene-----52,000-----900,000-----372,000  
 1,2,4–Trimethylbenzene-----32,000-----550,000-----220,000 1,3,5–Trimethylbenzene-----9,900-----200,000-----76,000  
 Naphthalene-----53,000-----21,000

groundwater analytical data: -----GW-1 Benzene-----2,500 Toluene-----4,700  
 Ethylbenzene-----1,100 Xylene-----6,200 1,2,4–Trimethylbenzene-----1,600

1,3,5-Trimethylbenzene-----560 MTBE-----180 Naphthalene-----320

recommendations:

- installation of soil borings and soil sample collection in north, south and west areas to delineate the extent of residual contamination – proposed borings should be installed to a final depth of approx. 10–12 ft below the surface (not acceptable, need boring to depth of clean soil or termination) – installation of two soil borings in the extreme southern end of the basement – installation of one well beneath the sidewalk immediately north of the building along West 83rd street adjacent to the former remote fuel fill ports

spoke with Mr. Malinowski. they have installed well on sidewalk along West 83rd Street and will take sample next week. took some soil samples also. will submit delineation report by end of month. the well, installed on sidewalk, is on north side of tank area. based on endpoint analyticals, found heaviest contamination on south side. asked Mr. Malinowski to define site specific groundwater flow direction. Mr. Malinowski mentioned that there is one well in middle of excavation and they have installed one on sidewalk. due to space restriction, they can't installed anymore wells inside building. asked Mr. Malinowski to installed third well on same sidewalk to define groundwater flow direction. sent email to Mr. Malinowski with same requirement.

08/22/07–Hiralkumar Patel. received email from Mr. Malinowski. as drilling equipment was removed from site, they are not able to install third well now and to include site specific groundwater flow direction in next report. Mr. Malinowski will send supplemental delineation report by end of month. spoke with Mr. Malinowski. he is preparing report. regarding third well, he mentioned that potential purchaser is doing geotechnical investigation and will install four borings which could be used as well. he is in contact with another consultant and will use their boring points to find groundwater flow direction.

09/05/07–Hiralkumar Patel. received call from Mr. Malinowski. he mentioned that potential buyer will not do any investigation at site. Mr. Malinowski is going to install two micro wells (one on eastern boundry, more towards southern end of excavation boundry, and one on western boundry) inside basement. he will survey this wells to define groundwater flow direction and will send investigation report with proposed remedial action plan. investigation report will also include soil delineation data as they did about 14 borings inside basement to define area of soil contamination.

10/11/07–Hiralkumar Patel. left message for Mr. Malinowski. 10/12/07–Hiralkumar Patel. received investigation report from Mr. Malinowski. abstract:

- installed 14 soil borings through the basement floor – install one well on sidewalk adjacent to former fill port – install two wells inside basement – at each boring locations, soil samples were continuously collected until shallow groundwater was reached at approx. 6–7 ft below the basement floor – groundwater, in monitoring well installed on sidewalk, was encountered at approx. 15.5 ft below street grade – three soil samples were collected during well installation on sidewalk (no contamination found) – well on sidewalk was installed to depth of 25 ft bg – no floating product found in monitoring well on sidewalk – no floating product was observed in any well inside basement but a petroleum odor was noted in well MCW-1 – groundwater flow direction at the site is west–northwest

summary:

- no contamination found at former fill port – contamination doesn't not exceeds more than 10–20 ft from previous excavation limit on south side – contamination along western edge is limited to immediate vicinity of the sidewall of former excavation –

found contaminated area at the southern edge of property, around suspected UST area – constituents commonly associated with gasoline was detected in upgradient well MCW-1 to the south-southeast of the former excavation area

soil analyticals values: -----S1-B1-----S1-B5-----S1-B8-----S1-B13-----limit

|                        | 4-6 ft  | 4-7 ft  | 4-7 ft | 2-4 ft  |        |
|------------------------|---------|---------|--------|---------|--------|
| Benzene                | 1,400   |         |        | 740     | 60     |
| Toluene                | 28,000  |         |        | 24,000  | 1,500  |
| Ethylbenzene           | 42,000  | 8,400   |        | 37,000  | 5,500  |
| Xylene                 | 1,600   | 168,000 | 1,800  | 147,000 | 1,200  |
| 1,2,4-Trimethylbenzene | 110,000 |         |        | 100,000 | 10,000 |
| 1,3,5-Trimethylbenzene | 5,900   | 48,000  |        | 43,000  | 3,300  |
| Naphthalene            | 20,000  |         |        | 18,000  | 13,000 |

– only contamination found in groundwater was Naphthalene (240 ppb) in upgradient well MCW-1. – no contamination found in groundwater sample from previous groundwater sampling point which was inside previous excavation area

10/15/07–Hiralkumar Patel. sent email to Steve requiring submission of RAP. received call from Steve. he has submitted report to current owner and currently owner and potential buyer is reviewing this report. Steve is not sure when property closing will happen, if happen. and remediation will be depend on type of future use of this property. he will talk to his client regarding time duration for closing of the property. informed Steve that if closing doesn't happen in a month, then owner has to start remediation to prevent further damage. got property owner's information:

Marc Ravner MARGLO, LLC. 1220 Broadway, Suite 408 New York, New York 10001 Ph. (917) 743-1553 email: marc@ravner.com

10/31/07–Hiralkumar Patel. sent email to Mr. Ravner requiring RAP submission. 11/26/07–Hiralkumar Patel. spoke with Steve at CA Rich. he mentioned that site will be used as garage as buyer is not instrested in property. Steve is going to site this week to track fourth tank for abandoned line in ground, and if finds tank then based on tank location, Steve will submit a RAP (most probably by Dec. 7, 2007).

11/28/07–Hiralkumar Patel. received email from Steve. he is going to site on 11/30/07.

01/02/08–Hiralkumar Patel. received project update from Steve. they did not find any tank for pipe that runs from former tank excavation towards and below rear wall near the southern edge of the site.

01/14/08–Hiralkumar Patel. received message from Ivy Olberding (631-589-6353, IvyO@pwgrosser.com) from PW Grosser. they been contacted by owner for further work. Ivy will call once they get hired.

01/30/08–Hiralkumar Patel. spoke with Ivy at PW Grosser. they been hired by owner. Ivy will submit RAP.

02/05/08–Hiralkumar Patel. received call from Ivy. they are planning for further excavation. Ivy will submit work plan.

02/12/08–Hiralkumar Patel. received email from Eric. spoke with Eric. he has been contacted by property owner regarding remediation at site. Eric asked what needs to be done to close the case. explained Eric that the department is waiting for RAP

from owner. Eric will submit RAP, if get hired.

Eric Telemaque, President EMTEQUE Corporation New York, NY 10018 Ph. (212) 631-9000 Fax (212) 631-8066 email: eric@emteque.com

spoke with Mr. Ravner. he has hired PW Grosser. asked him to submit RAP by Feb. 22, 2008.

03/14/08-Hiralkumar Patel. spoke with Mr. Ravner. PW Grosser has prepared RAP and will submit by March 18, 2008.

03/20/08-Hiralkumar Patel. received work plan from Ivy from PW Grosser. abstract:

- proposed additional subsurface investigation will be performed to excavate the identified contaminated soil - soil and groundwater endpoint samples will be collected - ORC treatment will be used as expecting groundwater at bottom of excavation - will sample existing wells (MCW-1 and MCW-2) approx. one month after excavation and application of ORC

Ivy Hidalgo-Olberding P.W. Grosser Consulting Ph. (631) 589-6353 (O)

(516) 424-1984 (C) email: ivyo@pwgrosser.com

Ivy proposed to take endpoint samples from three sidewalls only and groundwater sample from bottom of excavation where tanks were. there will be no samples taken from eastern sidewall as no contamination found in eastern endpoint sidewall sample after tank removal work.

sent email to Ivy approving proposed plan with only change that endpoint soil samples must be taken from all sidewalls. also mentioned that the department may require further soil/groundwater delineation/remediation based on result of remedial activities.

03/27/08-Hiralkumar Patel. received message from Ivy. will start excavation on 03/31/08. 04/10/08-Hiralkumar Patel. received call from Ivy. they are excavating area. Ivy found that previous tank location area excavation was backfilled with clean soil and there is now two feet thick concrete. Ivy asked if they need to remove that concrete. told Ivy that during tank removal, previous contractor removed soil to the depth of water table and backfilled with clean soil so no meaning of removing that thick concrete and clean soil. mentioned to her that if any groundwater is contaminated under previous tank location, they can be treated with other wells in area. asked Ivy to collect endpoint soil and groundwater samples and submit sample analyticals with site map. told her that sample analyticals must be submitted prior to any backfilling, so if needed wells could be installed inside excavation alongwith vapor barrier and possible SSDS. Ivy will screen top soil and will use clean soil from excavation to backfill it.

04/18/08-Hiralkumar Patel. received call from Ivy. they took samples for waste characterization and asked whether need TAGM or STARS. asked Ivy to run samples for full list. Ivy mentioned that they dug most of area and found contamination below water table. they can't dig any more. asked Ivy to collect endpoint soil and groundwater samples and asked to keep excavation open, if possible, until receive and review the endpoint analyticals. based on endpoint analyticals, will submit RAP.

04/23/08-Hiralkumar Patel. received call from Ivy. she got verbal information from lab. found some contamination in north and west sidewall samples. no further excavation is possible in these areas due to foundation wall and electric vault. excavation done to depth of groundwater. as no further excavation possible, they area injecting ORC in soil. asked Ivy to submit sample analyticals for review, once available, before any backfilling.

04/24/08–Hiralkumar Patel. received site map with sampling locations and endpoint sample analyticals. collected one sidewall samples from East, South and North side of excavation and two sidewall samples from West side of excavation. northern most section of the East Wall could not be sampled because it was excavated to the brick wall; therefore no soil to sample. found contamination in samples from northwest corner (where stairs and auto elevator located).

|                        |        |        |                        |        |        |
|------------------------|--------|--------|------------------------|--------|--------|
|                        | NW-1   | WW-1   | Ethylbenzene           | 10,100 | 8,860  |
| Xylene                 | 12,960 | 11,450 | 1,2,4-Trimethylbenzene | 9,970* | 9,370* |
| 1,3,5-Trimethylbenzene | 4,590  | 4,380  | Naphthalene            | 6,190* | 3,980* |

\* compounds found under TAGM limit

Regenox, was applied immediately after a second round of VEFR of groundwater in the open excavation.

spoke with Ivy. she mentioned that due to surrounding utilities and buidling structure foundation, no further excavation is possible. they have took groundwater sample from excavation and waiting for results. they also excavated area in southern end, as proposed in plan and took samples. waiting for endpoint sample analyticals from southern excavation. Ivy mentioned that currently there are two wells available inside basement, which were installed during earlier study and one well outside on sidewalk along W 83rd street. due to sidewall contamination in northwest corner, they will install one more temporary well in northwest corner. as no further excavation possible, regenox has applied and as consultant will install temporary well in contaminated zone, approved Ivy's request to backfill excavation, to prevent any accident. asked her not to put concrete slab until the department reviews groundwater analyticals and endpoint soil analyticals for samples from southern excavation.

04/30/08–Hiralkumar Patel. received sample analytical for endpoint soil and groundwater samples taken from southern excavation and groundwater analyticals for sample from northern excavation. no contamination found in endpoint soil samples from southern excavation. minor contamination found in groundwater sample from southern excavation. found some contamination in groundwater sample from northern excavation (area of previous tank location).

|                        |                    |             |       |
|------------------------|--------------------|-------------|-------|
|                        | N. Excavation GW-1 | Xylene      | 1,394 |
| 1,3,5-Trimethylbenzene | 426                | Naphthalene | 196   |

as per Ivy, groundwater sample from north excavation was taken at same location where previous water sample taken after tanks removed. compared to earlier analyticals, found low contamination in recent groundwater sample.

sent email to Ivy approving backfilling of each excavations, as no further excavation possible. asked Ivy to submit RAP, based on endpoint sample analyticals, to address remaining contamination. asked Ivy to hold any concrete floor work inside basement until gets approval for RAP (as requires vapor barrier and possibly SSDS).

received message from Ivy. spoke with Ivy. they will use ORC and will collect groundwater samples, from all existing well and one temporary well that they will install in northwest corner, after a month. and based on that analyticals, may requires further work.

Ivy mentioned that there is thick layer of clay which is holding contamination in sidewalls. asked Ivy to include this information in report and as soil has high contamination, even with clean groundwater sample after a month, the department may

requires monitoring of groundwater for a year and have quaterly samples collected.

05/01/08–Hiralkumar Patel. received message from Ivy.

05/05/08–Hiralkumar Patel. spoke with Ivy. she inquired about what guidelines should be used in reference to backfill material. asked Ivy to use TAGM. Ivy also asked whether crushed stone be used as backfill near footings. Ivy sampled some backfill soil and found five SVOC compounds over TAGM limit (highest was 3600 ppb). Ivy asked whether this soil can be used as backfill (as no VOCs, PCBs, Pesticides found).

discussed with DEC Austin regarding use of crushed stone for backfilling. Austin asked to consult with NYC DOB as they regulates backfilling at any site. Austin also mentioned that as only SVOCs found slightly over limit and as SVOCs generally stick with soil, he approved to use such soil, but again after consulting with NYC DOB (in reference to type of soil).

06/06/08–Hiralkumar Patel. received message from Mr. Sharma from UTB.

Mohan Sharma UTB PH. (516) 326–1160 Ext. 106 email: msharma@utb1.com

spoke with Mr. Sharma. he asked to close the case based on decrease in groundwater contamination from starting of this case. explained to Mr. Sharma that there is still some contamination left in sidewalls and PW Grosser is using ORC to treat that contamination. to know effectiveness of ORC and to confirm containment of contamination in soil itself and not impacting groundwater anymore, the department requires groundwater monitoring. asked Mr. Sharma to submit report for work done till date.

06/26/08–Hiralkumar Patel. received remedial action report. abstract:

– neither the current manager nor the owners have stored or dispensed petroleum products at the site – surficial geological materials at the site consist of approx. one ft of backfill below a concrete slab. a native clay layer was encountered below the backfill and was overlying silty sands – the water table was encountered within the silty sands – performed excavation in two different areas: northern excavation and southern excavation – the northern excavation was approx. 60 ft in length by 40 ft in width and the southern excavation was approx. 20 ft in diameter – the northern excavation includes the areas adjacent to the former USTs – both the northern and southern excavations were excavated to groundwater which was encountered between the depths of 5–7 ft below the concrete slab of basement floor – the northernmost portion of northern excavation was approx. 9–10 ft bg – removed approx. 8,086 gal of free product/water during removal of impacted soils – applied Regenox – in order to determine the effectiveness of chemical application, collected four rounds of groundwater samples – one partially exposed fill line was observed along the length of the western wall during excavation activities – three temporary monitoring wells (TW–1 and TW–2 in northern excavation and TW–3 in southern excavation) were installed, which will supplement the already existing three monitoring wells (MW–1, MCW–1 and MCW–2) – monitoring wells were strategically installed in the groundwater flow direction at the site (west–northwest) <----- – temporary wells were installed to depth of 7 ft bg; wells consisted of 6 ft of screen and 2 ft riser which allowed for the screened zone to be approx. 3 ft into water table <---- – groundwater sample was collected from within the excavation pits after visible contaminated soil removed and before application of Regenox – first round of groundwater samples collected two weeks after application of Regenox; no floating product observed in any well – based on analytical result of first round of groundwater sampling, TW–1 and TW–2 were sampled on weekly basis to monitor degradation of residual contamination – found contamination in endpoint samples from northwest corner NW–1 and WW–1 (analyticals listed above) – NW–1: north wall of the northern excavation was excavated to average of approx. 2 ft from the building's outer brick wall; north wall could not be excavated further due to exposed bedrock at the western portion of the wall and a water main at the

eastern portion of the wall; excavation in this location was to the water table with the exception of the northernmost section which was excavated below the water table to approx. 9–10 ft bg; small area (approx. 20 linear ft) of soil remains on the north wall and was the location of the soil collected for sampling – WW–1: soil remaining in the north portion of western sidewall in northern excavation could not be further excavated due to the electric panel and two structural columns

summary:

– found high VOC contamination in soil endpoint samples from northern and northwestern sidewall in northern excavation (previous tank location area) – sidewall from northern section of excavation was taken from soil left adjacent to brick wall (due to structural stability reasons) – monitoring well MW–1 is located downgradient from the northern sidewall sampling location and during well installation, no soil contamination found. no groundwater contamination found from MW–1 – well MCW–2 is located in area of northwestern sidewall sampling location (where contamination found), but no contamination found in recent groundwater sample from MCW–2 – no downgradient well from northwestern sidewall, where contamination found in sidewall samples

discussed with DEC Vought. he mentioned that to confirm natural attenuation of contamination, groundwater must be monitored for pH, temp., dissolved oxygen and RedOx potential.

07/11/08–Hiralkumar Patel. spoke with Mr. Sharma at UTB. asked him to sample all wells again for VOCs and SVOCs along with following parameters: pH, temperature, dissolved oxygen and RedOx potential. sent email to Mr. Sharma, Ivy (at PW Grosser) and Mr. Ravner (owner) requiring the same.

07/28/08–Hiralkumar Patel. received closure letter from Ivy. they sampled monitoring wells MW–1, MCW–1, TW–1 and TW–2. wells MCW–2 and TW–3 were destroyed during backfilling. no contamination found in sample analyzed. dissolved oxygen was found more than 3 mg/l in each wells and RedOx potential was more than zero.

07/30/08–Hiralkumar Patel. discussed with DEC Vought. as no further excavation possible in any area and no groundwater contamination found in wells during recent sampling and based on DO, pH and RedOx potential values, Vought suggest to close the case.

case closed. NFA sent to Mr. Ravner. letter emailed to Mr. Ravner, Ivy at PW Grosser and Mr. Sharma at UTB.

**Map Identification Number 98**



**215875; 136 W 75 STREET**

136 W 75 STREET

NEW YORK, NY

**Spill Number: 0914061**

**Close Date: 03/13/2009**

TT–Id: 520A–0248–768

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 862 feet to the SW

**ADDRESS CHANGE INFORMATION**

Revised street: 136 W 75TH ST

Revised zip code: 10023

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: ERT DESK – CON EDISON Spiller Phone:  
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: Caller Phone:  
 DEC Investigator: DMPOKRZY Contact for more spill info: ERT DESK Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/08/2009 |                     | UNKNOWN        |                         |  |                     |  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 1.00             | GALLONS | 0.00               | GALLONS | UTILITY              |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 99** **140 W 75TH ST** **Spill Number: 9513823** **Close Date: 02/11/2003**  
 140 W 75TH ST MANHATTAN, NY TT-Id: 520A-0092-279

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 889 feet to the WSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: UNKNOWN Spiller Phone:  
 Notifier Type: Local Agency Notifier Name: FIRE HAZMAT Notifier Phone: (917) 769-0483  
 Caller Name: MS BAILEY Caller Agency: DEP Caller Phone: (718) 595-6700  
 DEC Investigator: TOMASELLO Contact for more spill info: MR KELLER Contact Person Phone: (917) 769-0483

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 01/31/1996 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled | Material Class     | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|--------------------|------------------|---------|--------------------|---------|----------------------|
| MERCURY          | HAZARDOUS MATERIAL | 1.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

DEP NOTIFIED BY FIRE DEPT THAT ABOUT 2 OZ MERCURY SPILLED AT APT DWELLING CIRCUMSTANCES AND CLEANUP STAUUS UNKNOWN

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 100** **W 83RD ST& CENT PARK WEST** **Spill Number: 8907311** **Close Date: 10/24/1989**  
 W 83RD ST& CENT PARK WEST NEW YORK CITY, NY TT-Id: 520A-0102-143

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 898 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: W 83RD ST / CENTRAL PARK W  
 Revised zip code: 10024

|                                  |                              |                              |
|----------------------------------|------------------------------|------------------------------|
| Source of Spill: UNKNOWN         | Spiller:                     | Spiller Phone:               |
| Notifier Type: Police Department | Notifier Name:               | Notifier Phone:              |
| Caller Name: OFFICER CATHY BRADY | Caller Agency: NYCPD         | Caller Phone: (212) 374-5580 |
| DEC Investigator: TOMASELLO      | Contact for more spill info: | Contact Person Phone:        |

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/24/1989 | 10/24/1989          | UNKNOWN        | UNKNOWN                 | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN MATERIAL | OTHER          | -1.00            | UNKNOWN | 0.00               | UNKNOWN | SOIL                 |

Caller Remarks:

WATER MAIN BROKE, NYCPD, NYCFD ON SCENE, STREET IS BLOCKED OFF, CLEAN UP & TESTING FOR ASBESTOS & HAZARDOUS MATERIALS WILL BE DONE.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 101** **MICHAEL DONOVAN**  
 175 WEST 76TH ST

MANHATTAN, NY

**Spill Number: 1306921**

**Close Date: 10/08/2013**  
 TT-Id: 520A-0293-318

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 901 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: HRPATEL

Spiller: FORMER DRY CLEANERS  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: MICHAEL DONOVAN

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (718) 974-3373

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/01/2013 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled    | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|---------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DRY CLEANING FLUIDS | OTHER          | 0                | UNKNOWN | 0                  | UNKNOWN | SOIL                 |

**Caller Remarks:**

while removing dry cleaning equipment loss occurred to sidewalk.

**DEC Investigator Remarks:**

10/02/13-Hiralkumar Patel. 1:34 PM:- left message for Mike. 1:38 PM:- received call from Mike. he lives on fourth floor of the building. he mentioned that dry cleaning facility on ground floor was closed for about six months and currently contractor is removing equipments. Mike mentioned that unknown amount of dry cleaning fluid spilled while moving equipments and there is strong odors in building. Mike is concernd about health impact to his family. 2:30 PM:- visited site with DEC Mahat. its 15 story mixed use building with basement. met with Mike and Fidel Colonio (building super). Fidel mentioned that yesterday around 10 AM, they noticed strong chemical odors in building for about two hours. he stated that odors originated from a out-of-business dry cleaner located along Amsterdam Ave. Fidel immediately informed building management about the odors. he was asked to open lobby doors on all floors for ventilation. odor level reduced after two hours.

inspected building's main lobby and Mike's apartment on fourth floor. no odors noted in building. found chemical odor at the door of the dry cleaner. the dry cleaner was closed and there was no access for inspection. inspected basement. found chemical odors only in water main room which is located just beneath the dry cleaner.

spoke with David Goldberg at management office. informed him about chemical odors in building and complaints from tenants. asked him to set up ventilation system inside the dry cleaner shop immediately to prevent any more accumulation of odors inside the building. Mr. Goldberg mentioned that outgoing tenant hired AARCO Environmental to remove dry cleaning machinery.

spoke with Steve at AARCO Environmental. he mentioned that AARCO Environmental was hired by building management and not by the tenant. he confirmed that there was odors during removal operation. machine is partially removed.

found two vent ducts in backyard of the building. Fidel mentioned that one vent duct, which ends at roof top, belongs to restaurant and the other vent duct, which ends in backyard close to first floor level, belongs to dry cleaner.

spoke with Mr. Goldberg. he mentioned that Bestway will install ventilation by tonight.

spoke with Shalom at Bestway, who is responding this evening to set up ventilation system inside the dry cleaner. informed him that system must run continuously until its removal is approved by the department.

met with Mike, before leaving the site. he confirmed that situation is much better compared to yesterday. his wife has scheduled a physical checkup, due to possible adverse effect of chemical vapors in building.

during inspection, noted an active fill port and vent pipe in front of dry cleaner.

Michael Donovan Apt. 4B Ph. (718) 974-3373 email: mike.donovan.design@gmail.com

Lichter Real Estate Number One, LLC.

\*\*property owner\*\* c/o Lichter & Lichter, L.P. 850 West 176th Street New York, NY 10033 Attn.: Claire Eisenberg

\*\*property manager\*\* Ph. (212) 927-7088 email: alflichter@yahoo.com

David Goldberg Lichter & Lichter, L.P. Ph. (212) 927-7088 email: alflichter@yahoo.com

Fidel Colonio

\*\*building super\*\* PH. (212) 787-3054

Steve AARCO Environmental Ph. (631) 586-5900

Shalom Asbestway Abatement Corp. PH. (718) 858-2600

(917) 361-8882 (C)

7:25 PM:- received message from Shalom. they finished installation of air scrubbers in the building.

10/04/13-Hiralkumar Patel. alternate address: 341-347 Amsterdam Avenue, 175-179 W 76th Street

no other spills found.

PBS #: 2-609418. as per PBS record, the site has one 5,000 gal #6 oil AST on saddles. the PBS registration expired on 12/26/2012.

9:30 AM:– visited site. met Fidel. he mentioned that total five air scrubbers installed in the building: one inside the dry cleaner, one in water main room in basement and one each on 4th floor, 6th floor and 9th floor. exhaust from all air scrubbers discharge into backyard. air scrubber in dry cleaner is connected to vent duct from the dry cleaner. no odors noted in main lobby, in water main room or at dry cleaner door. no access to the dry cleaner.

11:20 AM:– spoke with Mr. Goldberg. informed him about expired PBS registration. he mentioned that the building is using 5,000 gal #6 oil (which will be converted to #2 oil in spring of 2014) tank. he will check with building manager regarding registration renewal. Mr. Goldberg also mentioned that there is another tank inside the dry cleaner which was used for steam generation as part of dry cleaning process. informed Mr. Goldberg that the second tank, on the site, is not registered. he stated that he saw tank registration for dry cleaner tank and will provide registration number.

asked Mr. Goldberg to run scrubber continuously until the project is over and confirmed no more issues in building. also asked him not to paint any part of dry cleaner store prior to the Department's inspection, as need to confirm condition inside the store.

11:53 AM:– spoke with Heiki at AARCO. she confirmed that all machinery and dry cleaning related items were removed yesterday. she mentioned that there was no spill, but odors were generated from the machine itself, during removal.

discussed with DEC Nirangan Gandhi. he mentioned that the department requires submission of Notice of Equipment Shutdown prior to removal of dry cleaning equipment. Mr. Gandhi checked database and could not find registration of the dry cleaning facility at the site. he asked for joint inspection by spills and dry cleaning section. he also mentioned that NYC DEP dry cleaning unit may be informed.

DEC Benedicto Loreda of dry cleaning section will join in inspection.

1:26 PM:– spoke with Mr. Goldberg and scheduled a site inspection at 2:30 PM on 10/08/13. informed Mr. Goldberg that the department requires presence of representative of building owner/manager and project manager from AARCO Environmental, during the site inspection.

1:54 PM:– discussed case with NYS DOH Mike Hughes. due to short period of time when vapors noted inside the building, absence of odors in building and corrective actions taken including removal of source and installation of air scrubbers, NYS DOH does not require any action at this time. future investigation(s) of indoor air may be required based on further inquiries, if received.

3:03 PM:– sent email to NYSDOH Hughes and NYCDOH D'Andrea including copy of spill report and available pics.

3:05 PM:– sent email to DEC Gandhi and DEC Loreda including copy of spill report and available pics.

10/08/13–Hiralkumar Patel. 2:10 PM:– visited site with DEC Mahat and DEC Loreda. met Joshua Schwartz (management representative), Steve (AARCO) and Fidel. inspected dry cleaner location. no odors found inside the store. no signs of spill noted inside the store. DEC Loreda asked Steve to submit disposal manifests for solvent and dry cleaning machine. he also asked to submit required paper work reference to registration and closure of dry cleaning facility.

inspected 4th floor. no odors noted in lobby. spoke with lady in Mike's apartment, who confirmed no odors.

inspected basement. no odors noted in water main room. no chemical odors noted in sewer trap pit, located inside the water main room.

site has one 5,000 gal AST on saddles, inside a secondary vault with access. the tank is located along southern foundation wall, along W 76th Street. found oil stain on tank wall, but no odors noted inside the tank room. the fill port is at the curb along W 76th St. vent pipe is located in alley, along eastern edge of property, behind the alley door. as vent pipe is not visible from the fill port location, suggested Mr. Schwartz to relocate it.

searched for other tank, associated with fill/vent located outside the dry cleaner. no other tanks found at the site. Mr. Schwartz and Fidel does not know about previous tank. asked them to seal the fill port, located in front of the dry cleaner, to prevent misdelivery.

based on observations during site visits and information available to date, case closed.

**Map Identification Number 102** **BROKEN DUCT FOUND IN EXCAVATION** **Spill Number: 0801224** **Close Date: 07/29/2008**  
 52 WEST 74TH STREET MANHATTAN, NY TT-Id: 520A-0214-961  
 52 W. 74TH ST

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 939 feet to the SSW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: ERTSDESK – CON EDISON Spiller Phone:  
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: Caller Phone:  
 DEC Investigator: RWAUSTIN Contact for more spill info: ERTSDESK Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 04/30/2008       |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 2.00             | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

FOUND IN EXCAVATION , WONT MAKE 2 HOUR CLEAN UP.

211117

DEC Investigator Remarks:

211117. see eDocs

7/22/08: Due to possible third party responsibility, spill referred to R. Austin for re-assignment and follow up. (JHO)

7/29/08 – Austin – Product traced back to fuel oil fill line at 52 W. 74 St. According to con Ed, owner repaired the line, and Con Ed completed cleanup of spilled 2.5 gals. of fuel. closed – end

**Map Identification Number 103** **135 WEST 74TH ST**  
 135 WEST 74TH ST

MANHATTAN, NY

**Spill Number: 0102621**

**Close Date: 06/11/2001**  
 TT-Id: 520A-0091-227

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 947 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Local Agency  
 Caller Name: CHERELLE MAYFIELD  
 DEC Investigator: JHOCONNE

Spiller: SAME – CON ED  
 Notifier Name: MR WILLIAMS  
 Caller Agency: NYC DEP  
 Contact for more spill info: MR WILLIAMS

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (718) 595-6777  
 Contact Person Phone: (212) 442-7090

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 06/08/2001        |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | 0                | GALLONS                 | 0                  | GALLONS             | SEWER                |

Caller Remarks:

CALLER STATES THAT CONTACT PERSON IS FROM DOT STATING THAT CON ED IS DUMPING OIL IN SEWER LINE AT LOCATION.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL DEC INSPECTOR'S NOTES Tried to contact Kay Williams, Dispatcher said there was no one by that name at that number. Left my name and number for call back. DEP dispatcher corrected the name to Mr. Williams, called him but he was out to lunch, I left a message. Contacted ERT Kessler, he has no report of incident at that location but he will call Manhattan #9 crew.

Call back from Ray Lo ERT- Crew got summons from DOT for improperly closing the street. They have a vactor on scene which is pumping debris and water from structure.

Called DOT and asked for Mr. Williams, he will not be in all week.

Called ERT- spoke with Bill Capune. He was at scene , crew had removed transformer and were vactoring debris from vault, no oil spilled in vault. Crew had street and sidewalk blockaded. City DOT worker walked inside barricade, he wa stold he could not enter work zone without hard hat. He wrote them a tickrt for closing street/sidewal without a permit.

No spill.

**Map Identification Number 104** **MANHOLE #25889** **Spill Number: 9910327** **Close Date: 02/06/2004**  
 **AMSTERDAM AV & 80TH ST** **MANHATTAN, NY** **TT-Id: 520A-0101-348**

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 949 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: AMSTERDAM AV / W 80TH ST  
 Revised zip code: 10024

|                                 |                                            |                                      |
|---------------------------------|--------------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN        | Spiller: UNKNOWN                           | Spiller Phone:                       |
| Notifier Type: Affected Persons | Notifier Name: JUAN MEJIS                  | Notifier Phone: (212) 580-6763       |
| Caller Name: RICHARD ROACH      | Caller Agency: CON EDISON                  | Caller Phone: (212) 580-6763         |
| DEC Investigator: COMENALE      | Contact for more spill info: RICHARD ROACH | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 11/29/1999 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 10.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

CONED SPILL #129115 / WORKERS DISCOVERED 10 GALS OF PETROLEUM FLOATING ON 10 GALS OF WATER IN A MANHOLE – CLEAN UP WILL BEGIN PENDING TEST RESULTS

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 105** **VACANT BUILDING** **Spill Number: 0604606** **Close Date: 10/27/2010**  
 36 WEST 74TH ST. MANHATTAN, NY TT-Id: 520A-0097-570

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 964 feet to the SSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: VINNY LOVARI – VACANT BUILDING Spiller Phone: (718) 708-3425  
 Notifier Type: Local Agency Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: Caller Phone:  
 DEC Investigator: RVKETANI Contact for more spill info: VINNY LOVARI Contact Person Phone: (718) 708-3425

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 07/24/2006 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

DURING TANK REMOVAL CONTAMINATED SOIL WAS DISCOVERED ON TOP OF CEMENT SLAB: OIL WAS MIXED IN WITH SAND:

DEC Investigator Remarks:

08/2/06–Zhune Spoke to V. Lovari from Island Tank. Soil samples were performed (1 bottom, 2 end–points, 2 sites). 08/2/06 sent CSL to Owner Mr. Bill Carr at: 236 West 26 Street, Suite 605 New York, NY 10001

08/10/06–Vought–Received message from Dan (Alliance Builders 212–463–9229) looking for contact info for DEC Zhune. Vought returned call and provided information and Dan indicated that he was already able to contact DEC Zhune.

8/6/10 – Raphael Ketani. I received this case from Jeff Vought who transferred to the Superfund, Brownfield Unit in Region 2 DER.

The spill took place on 7/24/06 and consisted of the discovery of contaminated soil on top of a concrete slab when a UST was removed. The UST had contained an oil and sand mix inside. The contractor was Vinny Lovari of Island Tank (718) 967–9424/cell (347) 416–9961.

The site location is 36 West 74th Street, Manhattan. The block and lot are 1126 and 52. The property was sold to the Bikuben Foundation New York, Inc., c/o Holland & Knight, LLP, 195 Broadway, NY, 10007 on 10/11/05.

I could not find a PBS registration, nor any additional cases with the above address. There is no paper file. The E–docs contain just the CSL. I tried the Alliance Builders number, but it was out of service.

As there has been no response from the owner regarding the cleanup of the soil contamination, I sent a standard followup letter to the Bikuben Foundation.

8/19/10 – Raphael Ketani. Vinny of Island Tank (347) 416–9961 called me and told me that he will look for the file folder that contains the documentation showing that the cleanup was completed.

9/21/06 – Raphael Ketani. Michael Di Paolo (212) 513–3319 of Holland and Knight (attorneys for the Bikuben Foundation) called. He said that he had represented the Bikuben Foundation in the past and he was trying to find his client in order to respond to the DEC's letter. He asked that I give him more time to locate them and get the necessary cleanup documentation to the DEC. We agree to a deadline of 9/28/10.

10/25/10 – Raphael Ketani. Today I received the tank replacement and soil investigation report dated July 19, 2006 from Island Environmental Tank. The report was sent to me by Mr. Di Paolo. The report contained an affidavit of tank removal, the full soil analytical report, and the tank closure report. I began my review.

10/27/10 – Raphael Ketani. I finished my review of the tank replacement and soil investigation report. The soil end point analytical results were almost entirely non–detect. There were only two benzene hits that were very slightly above the TAGM limits.

As the data in the tank removal and soil investigation report indicates that virtually all of the oil contamination had been removed, I have determined that there is no threat to the public or the environment. Therefore, I am closing the spill case.

**Map Identification Number 106** **MANHOLE 29424**  
 W 75TH ST & CEN PRK W

**Spill Number: 9808719** **Close Date: 11/04/2003**  
 MANHATTAN, NY TT-Id: 520A-0092-965

MAP LOCATION INFORMATION  
 Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 965 feet to the S

ADDRESS CHANGE INFORMATION  
 Revised street: W 75TH ST / CENTRAL PARK W  
 Revised zip code: 10023

|                                        |                                         |                                      |
|----------------------------------------|-----------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller:                                | Spiller Phone:                       |
| Notifier Type: Affected Persons        | Notifier Name: MR MCHUGH                | Notifier Phone: (212) 338-3352       |
| Caller Name: JOE DEVOTI                | Caller Agency: CON EDISON               | Caller Phone: (212) 580-6763         |
| DEC Investigator: JHOCONNE             | Contact for more spill info: JOE DEVOTI | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/14/1998 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 1.00             | GALLONS | 0.00               | GALLONS | GROUNDWATER          |

Caller Remarks:

APPROX 1/2 GAL OF WATER IN MAN HOLE WITH ONE QUART OF UNK TYPE OIL ON IT. SAMPLE TAKEN FOR TESTING. 120500 CON ED SPILL NUMBER.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL e2mis 120500

10/14/98 00:40 MAXWELL(RW) REPORTS WHILE CHECKING MANHOLES FOR BLOWN LIMITERS FOUND SPILL OF 1 QUART OF UNKOWN OIL MIXED WITH 1/2 GALLON OF WATER IN MH29424 LOCATED S/W/C W 75 ST & C.P.W. SPILL APPEARS TO BE SOME TYPE OF OIL. THE SPILL IS CONTAINED, THERE WAS NO ENTRY TO ANY SEWERS OR WATERWAYS. THERE ARE NO SEWER CONNECTIONS IN THE MANHOLE AND NO VISIBLE CRACKS. MR MAXWELL INSTALLED PIGS AND DIAPERS AROUND SPILL, TOOK SAMPLE AND INSTALLED SPILL TAG #17209. THE STRUCTURE POSSIBLY CONTAINES PILC CABLE DISTRIBUTION FEEDER CABLE, BUT NO LEAKS FROM THE DISTRIBUTION FEEDER CABLES WERE OBSERVED. SPILL WAS REPORTED TO MCHUGH IN THE CONTROL CENTER AT ));40 HRS ON 10/14/98. LOGGER PGM

If this is a Con Edison manhole it contains electrical cable and splices. Many manholes have a sealed sump in the floor which is used to allow runoff when pumping the structure. A hose is place in this sump and water on the floor will flow into the sump allowing the floor to be cleaned. If cleaned prior to analysis of the fluid, the structure will be cleaned as >50 PPM and all liquid and waste will be manifested accordingly. The structure will be double washed with a degreaser, i.e. Slix. All cleaning

material and PPE will also be treated as >50. If any sludge is found within a manhole it is treated as lead contaminated and manifested accordingly. The spill identification tag will remain secured to the structure until the analysis is completed and if <500 PPM the signage will be removed. If the analysis is >499 PPM, a grid will be prepared for wipe testing the area. Until the analysis of the wipes are proven to be <10ugs/100cme2 all additional waste produced from the structure will be treated as the original analysis. If this spill occurred in a transformer vault containing a sump pump and there was a possible release, the drainpipe trap will be dismantled to determine if oil was released. Sludge found in a vault, through historical analysis, has been determined not to contain lead.

LOGGER PGM 10/14/98 03:00 hrs. Astoria Chem-Lab called Russo #45348 @ MCC #9 desk and reported that the sample taken will req 48 hrs to do analysis.

10-16-98 11:05 Cleanup complete on 10-15-98 at 13:30 hours, supervised by J.McCabe 00305. 1-quart oil removed with absorbant, mh was then double washed. No results available cleaned as 50-499 PPM. 3-55 gallon drums hazardous waste generated. NYP004019162. Tag left in place pending sample analysis. Crew: J.Rivera 16937, E.Sims 37665, and R.Calderon 19847.

10/17/98 21:37 RECEIVED LAB RESULTS AT 21:14 LAB SEQUENCE # 98-11007 AROCLOR - 1254 PCB - 9 PPM R.BRUNS # 21106

10-19-98 10:45 Tag removed 10-19-98 at 0800 hours by M.Brotko 10504.

**Map Identification Number 107** **214656; WEST 75 ST AND CENTRAL PARK WEST** **Spill Number: 0814608** **Close Date: 11/25/2008**  
 WEST 75 ST AND CENTRAL PARK WEST NEW YORK, NY TT-Id: 520A-0249-518

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 965 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: W 75TH ST / CENTRAL PARK W  
 Revised zip code: 10023

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: ERT DESK - CON EDISON Spiller Phone:  
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: Caller Phone:  
 DEC Investigator: DMPOKRZY Contact for more spill info: ERT DESK Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 11/19/2008       |                     | UNKNOWN          |                         |                    |                     |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| DIELECTRIC FLUID | PETROLEUM           | 0                | GALLONS                 | 0                  | GALLONS             | UTILITY              |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 108** **MANHOLE #2119** **Spill Number: 0112175** **Close Date: 01/12/2004**  
 475 AMSTERDAM AVE MANHATTAN, NY TT-Id: 520A-0101-352

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 992 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                 |                                        |                                      |
|---------------------------------|----------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN        | Spiller: UNKNOWN                       | Spiller Phone:                       |
| Notifier Type: Affected Persons | Notifier Name: MR CURTIS               | Notifier Phone: (212) 338-3352       |
| Caller Name: JIMMY FOX          | Caller Agency: CON EDISON              | Caller Phone: (212) 580-6763         |
| DEC Investigator: KMFOLEY       | Contact for more spill info: JIMMY FOX | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/26/2002 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 15.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

ABOVE MATERIAL DISCOVERED AT ABOVE LOCATION ON TOP OF 5 GALLONS OF WATER. SAMPLE HAS BEEN TAKEN AND CLEANUP IS PENDING CREW RESPONSE. CON ED #141978.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was FOLEY E2MIS #141978 NOTES

Mr.V.Mirance # 58484 operating supv.cable dept. At the location of 475 W.159 & Amsterdam Ave. Was replacing transformer in TM-2119 on feeder 1m14 that is now out on OOE/2 Reports that in process of removing the transformer, found approx. 15 gallons of Unknown oil mixed with approx. 5 gallons of water. Tag #18589 was placed. Two samples taken one for PCB, and one for ID. Chain

of custody # AA-19938 Acct #F3246 No sewers or waterways affected Weather conditions did not contribute to this spill. No injuries related to this spill. No fire or smoke No private property affected Tanker and crew will be scheduled on 11:00-07:00 shift starting 03/26/02

Update 3-27-02 @ 01:50 Lab Sequence Number: 02-02530-001 Date Approved: 3/26/2002 E2 Incident Number: 141978 Date Received: 3/26/2002 Chain of Custody ID: AA19938 Date Sampled: 3/26/2002 Analysis indicates the presence of a substance similar to a lubricating oil.

Update 3-27-02 @ 02:35 Lab Sequence Number: 02-02529-001 Date Approved: 3/27/2002 E2 Incident Number: 141978 Date Received: 3/26/2002 Chain of Custody ID: AA19938 Date Sampled: 3/26/2002 Aroclor 1242 < 1.0 ppm EPA 608/8082 Aroclor 1254 < 1.0 ppm EPA 608/8082 Aroclor 1248 < 1.0 ppm EPA 608/8082 Aroclor 1260 1.1 ppm EPA 608/8082 ----- TOTAL PCB  
1 ppm

UPDATE 3/27 @ 08:10 HRS Spoke to J Ligouri # 14084 and he informed me that the cleanup was completed @ 07:10 HRS. The structure was double-washed and Flushed by Environmental services because Lab results indicated less than one(1) PPM PCB's. There was no solid waste to remove. Removed Environmental tag # 18589. Cleanup Supervisor - J Liqouri # 14084 Cleanup crew - T Lynch # 10878.....J Kelly # 15634

1/12/04 Transformer replaced on 3/27/07 per 1/14/03 update to e2mis.

**Map Identification Number 109**

**LOSS TO ROADWAY**  
82ND AND AMSTERDAM

MANHATTAN, NY

**Spill Number: 1400018**

**Close Date: 05/21/2014**  
TT-Id: 520A-0297-775

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
Approximate distance from property: 1004 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: W 82ND ST / AMSTERDAM AVE  
Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
Notifier Type: Other  
Caller Name:  
DEC Investigator: SXMAHAT

Spiller: TIFFANY CHAG - UNKNOWN  
Notifier Name:  
Caller Agency:  
Contact for more spill info: TIFFANY CHAG

Spiller Phone:  
Notifier Phone:  
Caller Phone:  
Contact Person Phone: (617) 943-0005

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 04/01/2014        |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | 0                | UNKNOWN                 | 0                  | UNKNOWN             | SOIL                 |

Caller Remarks:

loss to roadway, oily sheen, near construction site pouring down the road

DEC Investigator Remarks:

4/1/14: Mahat

DEC Mahat left a voice message to Ms. Tiffany Chang ( 617.943.0005 ) inquiring more about the spill.

5/21/14: Mahat Spilled was on the roadway. No further information could obtained from the contact information provided. Spill will be close in the data base.

Map Identification Number 110

MANHOLE 13704

Spill Number: 0009011

Close Date: 04/11/2001



76TH/AMSTERDAM

MANHATTAN, NY

TT-Id: 520A-0095-746

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 1007 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: W 76TH ST/AMSTERDAM AV  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Affected Persons  
 Caller Name: ANTHONY NATALE  
 DEC Investigator: KMFOLEY

Spiller: UNKNOWN - Unknown  
 Notifier Name: ANTHONY NATALE  
 Caller Agency: CON EDISON  
 Contact for more spill info: CALLER

Spiller Phone:  
 Notifier Phone: (212) 580-6763  
 Caller Phone: (212) 580-6763  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 11/03/2000       |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN MATERIAL | OTHER               | 30.00            | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

DISCOVERED A GEL LIKE SUBSTANCE IN A MANHOLE CLEAN UP IS PENDING TEST RESULTS. CON ED#143237

## DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was FOLEY DEC INSPECTOR'S NOTES Ref.# 134236, DEC #0009010 Results PCB 1ppm J& D Waterproofing.

CON ED E2MIS REPORT 11-03-00

This service is approx. 50 feet from SB13705 ( See Incident #134236) for reference.

Approx. 30gals. of unknown substance in approx. 2ft of mud and debris and approx. 10 gal. of water in service box SB 13704 located first service box east of Amsterdam Ave. and West 76th St. There was a contractor cleaning the building and using a gel type substance. The contractor packed up and left before MR. Driskill could get his identification or the type of substance used.

The unknown substance is approx. 30 gal. of mud (paint, debris and gel). there was smoke/steam involved when discovered. There is standing water but no visual movement. There is no sump pump running and a sewer connection connection and concrete sump cannot be verified.

Contractor has returned to this location and is cleaning again. The unknown substance has been reported running down the street and around the corner by our field crews.

Update Notified the DEP hazmat Team of the subject events and they will respond. Requested that they try to protect the sewer drains and our service boxes and manholes from becoming contaminated with this unknown substance. We also requested that the service boxes be barricaded until Clean Harbors starts the cleanup.

10:35 Received lab results of the oil ID extraction of submitted sample yielded an insufficient amount of material for an oil identification analysis.

PCB <1.0ppm X-ray fluorescence and microscopic spot testing indicate that their submitted material consist mainly of silica. Significant amount of calcium carbonate titanium, iron, zinc, lead and organic matter were also present.

Flash Point 201 Deg. F

The following information is from the Clean Harbors Work Sheet. 2 service boxes cleaned. Disposal: six solid drums, weight 1,800lbs.

**Map Identification Number 111****MANHOLE 13705**

76TH ST/AMSTERDAM

MANHATTAN, NY

**Spill Number: 0009010****Close Date: 04/11/2001**

TT-Id: 520A-0095-747

## MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 1007 feet to the WSW

## ADDRESS CHANGE INFORMATION

Revised street: W 76TH ST/AMSTERDAM AV

Revised zip code: NO CHANGE

|                                 |                                     |                                |
|---------------------------------|-------------------------------------|--------------------------------|
| Source of Spill: UNKNOWN        | Spiller: UNKNOWN – Unknown          | Spiller Phone:                 |
| Notifier Type: Affected Persons | Notifier Name: ANTHONY NATALE       | Notifier Phone: (212) 580-6763 |
| Caller Name: ANTHONY NATALE     | Caller Agency: CON EDISON           | Caller Phone: (212) 580-6763   |
| DEC Investigator: KMFOLEY       | Contact for more spill info: CALLER | Contact Person Phone:          |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 11/03/2000 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| UNKNOWN MATERIAL | OTHER          | 4.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

DISCOVERED A GEL LIKE SUBSTANCE IN THE MANHOLE. CLEAN UP IS PENDING TEST RESULTS CON ED#134236

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was FOLEY DEC INSPECTOR'S NOTES

Reference #0009011 (E2MIS #134237) Results<1ppm PCBs

CON ED E2MIS REPORT 11-03-00

Approx. 4gals. of unknown substance and approx. 2gals. of water in service box SB13705 located along the building line 170-174 West 76 St. Contractor cleaning building 170 W. 76 Street using a gel type substance. The contractor hosed the gel off the building and then hosed the street down which is the possible source of the unknown substance in our service box. The contractor left before Mr. Driskill could get his identification or the type of the substance used. The unknown substance is approx. 4gals. of paint, debris and gel. There was smoke/steam involved when discovered. No evidence of any release to sewer or waterway.

11-03-00 13:35hrs. Contractor has returned to this location and is cleaning again.

Update 14:10hrs. ERT Akbar notified DEp Hazmat team of the subject events and they will respond and deal with the contractor. The Environmental Desk updated #9 Supervisor Jim McCutchen and requested that he inform our field crews that the DEP was on the way and also requested that they try to protect the sewer drains and our service boxes and manholes from becoming contaminated with this unknown substance.

Update 20:40 hrs. DEP rep Stanley Siebenberg gave his permission for Con Ed to barricade the service boxes and return at 14:00hrs on 11-04-00 for the cleanup by Clean Harbors.

11:16 Lab Seq#00-10583-001 The oil extracted from the soil does not match any of our standards and may be too degraded to make an identification. Aroclor 1254 PCB 1ppm

Update 11-06-0 Clean harbors Work Sheet 2 service boxes cleaned. Break down equipment and move in between each service box. Depart site at 11:15pm Disposal: 6 solid drums, weight 1,800lbs

**Map Identification Number 112** **214793; 141-150 CENTRAL PARK WEST** **Spill Number: 0814637** **Close Date: 02/17/2009**  
 141-150 CENTRAL PARK WEST NEW YORK, NY TT-Id: 520A-0248-446

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (4)  
 Approximate distance from property: 1020 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                        |                                       |                                      |
|----------------------------------------|---------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: ERT DESK - CON EDISON        | Spiller Phone:                       |
| Notifier Type: Responsible Party       | Notifier Name:                        | Notifier Phone:                      |
| Caller Name:                           | Caller Agency:                        | Caller Phone:                        |
| DEC Investigator: DMPOKRZY             | Contact for more spill info: ERT DESK | Contact Person Phone: (212) 580-8383 |

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 12/04/2008        |                     | UNKNOWN          |                         |                    |                     |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | 0                | GALLONS                 | 0                  | GALLONS             | UTILITY              |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 113 215460; 424-246 AMSTERDAM AVENUE**

 424-246 AMSTERDAM AVENUE NEW YORK, NY

**Spill Number: 0914003**

**Close Date: 03/25/2009**  
TT-Id: 520A-0248-463

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (2)  
Approximate distance from property: 1037 feet to the NW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
Notifier Type: Responsible Party  
Caller Name:  
DEC Investigator: DMPOKRZY

Spiller: ERT DESK - CON EDISON  
Notifier Name:  
Caller Agency:  
Contact for more spill info: ERT DESK

Spiller Phone:  
Notifier Phone:  
Caller Phone:  
Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 02/06/2009        |                     | UNKNOWN          |                         |                    |                     |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | 2.00             | GALLONS                 | 0.00               | GALLONS             | UTILITY              |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 114 COMMERCIAL/DWELLING**

 424 AMSTERDAM AVE NEW YORK, NY

**Spill Number: 0708720**

**Close Date: 12/11/2007**  
TT-Id: 520A-0211-130

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 1038 feet to the NW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
Notifier Type: Local Agency  
Caller Name:  
DEC Investigator: RMPIPER

Spiller: UNKNOWN  
Notifier Name:  
Caller Agency:  
Contact for more spill info: 11TH BATTALION CHIEF

Spiller Phone: ( ) -  
Notifier Phone:  
Caller Phone:  
Contact Person Phone: (212) 570-4311

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 11/10/2007 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 50.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

CALLER FROM APPROVED OIL RECEIVED NOTIFICATION FROM FIRE DEPARTMENT OF LARGE SPILL AT ABOVE LOCATION. APPROVED OIL HAS NOT MADE A DELIVERY THERE SINCE THURSDAY 11/8 AND THERE HAS BEEN NO EVIDENCE OF A SPILL UNTIL TODAY. APPROVED OIL CLAIMS NO RESPONSIBILITY. SPILL MOSTLY CONFINED TO BASEMENT, BUT SOME HAS GONE OUT INTO THE STREET. FIRE DEPT ON SCENE.

DEC Investigator Remarks:

DEC Piper received call off hours. I contacted Battalion Chief and he stated oil was on sidewalk and into street. I informed him that I will have approved oil clean up spill. I called Vincent and instructed him to clean spill immediately. He obliged. Later I recieved a call from the Chief. He drove by site and it is cleaned up. closed.

**Map Identification Number 115**     **HOUSE**     **Spill Number: 0713512**     **Close Date: 03/27/2008**  
 67 WEST 73RD ST     NEW YORK, NY     TT-Id: 520A-0214-810

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1040 feet to the SSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                       |                                      |
|-----------------------------------|---------------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller:                              | Spiller Phone:                       |
| Notifier Type: Other              | Notifier Name:                        | Notifier Phone:                      |
| Caller Name:                      | Caller Agency:                        | Caller Phone:                        |
| DEC Investigator: SFRAHMAN        | Contact for more spill info: ROB HILL | Contact Person Phone: (718) 579-3413 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 03/22/2008       |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 10.00            | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

Trying to make delivery and the oil came out of vent after delivering 13 gallons. Unable to access the basement of the apartment building. Spill is being cleaned.

DEC Investigator Remarks:

03/24/08 I spoke with Millie Lopez of Castle Oil. She said they cleaned the spill which came out the vent, but not sure if there was any release in the basement. Castle and myself left messages for the home owner requesting call back. sr. 03/27/08 Spoke with Castle Oil, tank room was inspected by Castle crew, there was no oil spill in the tank room. No drain/soil impacted. Spill closed.

Map Identification Number 116



**BROWNSTONE**

52 W. 85TH ST APT 1R

MANHATTAN, NY

Spill Number: 9712452

Close Date: 10/09/2003

TT-Id: 520A-0098-751

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1052 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: 52 WEST 85TH ST  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Citizen

Caller Name: COMERFORD, KATHLEEN

DEC Investigator: RWAUSTIN

Spiller: UNKNOWN

Notifier Name:

Caller Agency: CITIZEN

Contact for more spill info: KATHLEEN

Spiller Phone:

Notifier Phone:

Caller Phone: (212) 787-9803

Contact Person Phone: (212) 787-9803

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/03/1998 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

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**Caller Remarks:**

CALLER STATES THAT THE NEIGHBORS OIL IS LEAKING INTO HER VAULT CAUSING STRONG ODOR . CALLER REQUEST A CALL BACK

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**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was AUSTIN KATHY H:212-787-9803 W:212-250-2789

2/7/98 mmm:MULQUEEN & SACCACHIO INSPECTED LOCATION AND SURROUNDING NEIGHBORHOOD. FOUND OIL ODOR IN FRONT BEDROOM OF 52 WEST 85TH AND TRACE OF OIL ODOR IN FRONT OF HOUSE BY HOUSE TRAP. HOUSE HAS NEW OWNERS THAT MOVED IN JULY '97. STATED THAT ODORS STARTED IN OCTOBER. HOUSE HAS NEW GAS FIRED HEATING SYSTEM IN REAR EASTERN ROOM. OLD OIL TANKS WERE LOCATED IN THE FRON WEST SIDE OF HOUSE ADJACENT OT COAL SHOOT WHICH HAS BEEN FILLED. INSPECTED #50 WITH SUPER, GEORGE. NO OIL ODORS OR OIL STORAGE IN #50. FLOOR IS SOFT IN AREA WHERE OLD TANKS USED TO BE. INSPECTED SURROUNDING HOUSES AT CURBLINE. MANY OF THE HOUSES HAVE ABANDONED FILL PORTS. DOES NOT APPEAR TO BE GROUNDWATER PROBLEM AT THIS TIME. 3/2/98 mmm: KATHY CALLED AND STATED THAT THE ODORS ARE BACK. 11:00 INSPECTED HOUSEHOLD WITH PID AND FOUND 0-2 PPM IN LIVING SPACE AND 10-15 PPM IN HOUSE TRAP. NOTICABLE FUEL OIL ODOR IN FRONT BEDROOM AND IN FRONT ROOM OF BASEMENT. HIGHEST ODORS BY HOUSE TRAP. INPSECTED #54 AND FOUND NO OIL ODORS IN HOUSE OR BASEMENT. NO PID READINGS. INSPECTED SEWERS AND FOUND THAT EACH MANHOLE HAD 10-15 PPM HEADSPACE. COULD NOT PULL MANHOLES DUE TO ALTERNATE SIDE REGULATIONS. FOUND EVIDENCE OF RECENT FUEL OIL DELIVERY IN FRONT OF #36, AND EVIDENCE OF PAST FUEL OIL DELIVERIES AT #22, & 30. TRIED TO INSPECT THE LARGER BUILDING ON CENTRAL PARK WEST AND W. 85TH BUT COULD NOT GAIN ACCESS. APPEARS THAT PETROLEUM IS ENTERING SEWERS DURING DELIVERIES, AND THAT AP HAS PROBLEM WITH HOUSE TRAP AND VENT. TOLD AP TO GET PLUMBER TO LOOK AT HOUSE TRAP AND POSSIBLY INSTALL CHECK VALVE TO BLOCK VAPORS. CALLED DEP AND SPOKE TO ALBERT GORDON WHO SEEMED TO THINK THAT THIS HAS BEEN A LONGTIME PROBLEM AND THAT THE SOURCE HAS BEEN UNDER INVESTIGATION FOR ABOUT 2 YEARS. CALLED DEP BACK ON MARCH 9TH. SAGAR WENT TO SITE IN PM AND ODORS HAD DISSIPATED. DID NOT GET ANY READINGS IN SEWER.

10/9/03 - AUSTIN - SOURCE NOT FOUND, VAPORS FROM SEWER, NO FURTHER INFO - CLOSED - ORIG. ASSIGNED TO MULQUEEN - END

**Map Identification Number 117**

**VAULT 9190/8884/9463**

200 WEST 79TH ST

MANHATTAN, NY

**Spill Number: 0908602**
**Close Date: 11/19/2009**

TT-Id: 520A-0233-932

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 1064 feet to the WNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE

Revised zip code: NO CHANGE

|                                        |                                  |                                      |
|----------------------------------------|----------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: CON ED                  | Spiller Phone:                       |
| Notifier Type: Other                   | Notifier Name:                   | Notifier Phone:                      |
| Caller Name:                           | Caller Agency:                   | Caller Phone:                        |
| DEC Investigator: RWAUSTIN             | Contact for more spill info: ERT | Contact Person Phone: (212) 580-8383 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 09/30/2009 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                   |                | Units            |         | Units              |         |                      |
| UNKNOWN PETROLEUM | PETROLEUM      | 6.00             | GALLONS | 0.00               | GALLONS |                      |

Caller Remarks:

contained to vault area/3 gals cleaned up/ clean up pending for remaining oil

DEC Investigator Remarks:

minor spill contained in vault – question why they waited 1 month to report?

Austin – 11/19/09 – Discovery of trans. oil in vault – cleanup done, but field workers neglected to inform Con Ed CIG until 10/30/09 – Spill cleaned up by Con Ed – See final EMIS in eDocs – spill closed – end

**Map Identification Number 118**    **200 W. 82ND ST**  
 200 W. 82ND ST

MANHATTAN, NY

**Spill Number: 9706531**

**Close Date: 09/02/1997**  
 TT-Id: 520A-0101-351

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1081 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
 Notifier Type: Citizen  
 Caller Name: ROBIN RAY  
 DEC Investigator: MCTIBBE

Spiller:  
 Notifier Name: ROBIN RAY  
 Caller Agency: CITIZEN  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone: (212) 724-2835  
 Caller Phone: (212) 724-2835  
 Contact Person Phone:

Category: Investigation indicates there was no spill.  
 Class: Any Type of RP, Including No RP – DEC Field Response – Corrective Action Not Required or Not Possible

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 08/23/1997 |                     | OTHER          | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | AIR                  |

Caller Remarks:

CALLER STATES THAT THE BUILDING ON AMSTERDAM AVE IS PUTTING OUT TOXIC ODOR FROM CHIMENY FLUE – MGR IS AWARE OF PROBLEM AND HAS NOT DONE ANYTHING YET – MGR STATES THAT IT WILL CLEANED UP ON TUESDAY

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIBBE CC AIR UNIT SUPER SAID IT WILL BE FIXED ON TUESDAY. REFER TO AIR UNIT AND DEP.

**Map Identification Number 119** **PARKING GARAGE** **Spill Number: 9808769** **Close Date: 12/14/2000**  
 348–354 AMSTERDAM AVE NEW YORK, NY TT-Id: 520A–0095–764

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1097 feet to the W

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                        |                                                  |                                      |
|----------------------------------------|--------------------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: ARNOLD PENNER – REAL ESTATE INVESTMENTS | Spiller Phone: (212) 980–6000        |
| Notifier Type: Other                   | Notifier Name:                                   | Notifier Phone:                      |
| Caller Name: BRIAN COSTELLO            | Caller Agency: NAC ENVIROMENTAL                  | Caller Phone: (212) 219–0880         |
| DEC Investigator: SIGONA               | Contact for more spill info: BRIAN COSTELLO      | Contact Person Phone: (212) 219–0880 |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/14/1998 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE         | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

ABANDONED TANK FIELD AT LOCATION – SOIL SAMPLES WERE DONE AND READINGS CAME BACK HIGHER THAN THEY SHOULD BE–TANKS HAVE BEEN PREVIOUSLY ABANDONED – GEO PROB WAS DONE

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

**The following DEC Investigator Remarks were available prior to 1/1/2002:**

TANK ABANDONED 6 YEARS AGO. CHANGED from Mulqueen to Sigona on 3/30/2000.

DEC Sigona conducted site investigation on September 26, 2000, and verified locations of monitoring wells and soil sampling locations. Former 4 x 550 gallon USTs closed in-place. The tanks were not registered. DEC (sigona) sent a letter to Real Estate Investments, Inc. on December 14, 2000 to close the spill. Requested registration of the USTs.

**Map Identification Number 120**      **NORTHEAST CORNER**      **Spill Number: 9513873**      **Close Date: 02/05/1996**  
 COLUMBUS AVE/EAST 73RD ST      NYC, NY      TT-Id: 520A-0092-908

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 1126 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: COLUMBUS AVE / W 73RD ST  
 Revised zip code: 10023

|                                        |                                      |                       |
|----------------------------------------|--------------------------------------|-----------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: UNKNOWN – Unknown           | Spiller Phone:        |
| Notifier Type: Citizen                 | Notifier Name: UNKNOWN               | Notifier Phone:       |
| Caller Name: JOHN BRUSEL               | Caller Agency: CITIZEN               | Caller Phone:         |
| DEC Investigator: JMKRIMGO             | Contact for more spill info: UNKNOWN | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 01/30/1996 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 1000             | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

super said that fuel co made delivery of 1,000 gals fuel no oil is getting to the tank-bldg owner is a john brausco asked dec for help- info recevd via fax dec rep

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was KRIMGOLD

**Map Identification Number 121**     **200 WEST 76TH ST**     **Spill Number: 0102998**     **Close Date: 01/19/2007**  
 332 AMSTERDAM AVENUE     , NY     TT-Id: 520A-0098-713

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1138 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                            |                                          |                                      |
|----------------------------|------------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN   | Spiller: UNKNOWN                         | Spiller Phone:                       |
| Notifier Type: Other       | Notifier Name: MR MORAN                  | Notifier Phone: (212) 580-6765       |
| Caller Name: BILL MURPHY   | Caller Agency: CON ED                    | Caller Phone: (212) 580-6763         |
| DEC Investigator: JAKOLLEE | Contact for more spill info: BILL MURPHY | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 06/18/2001 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE          | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |
| UNKNOWN PETROLEUM | PETROLEUM      | 10.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

ABOVE MATERIAL REPORTED DISCOVERED AT ABOVE LOCATION 3RD PARTY TO CON EDISON. SAMPLES BEING TAKEN BY CON ED FOR PCB. UNCONFIRMED INFORMATION THAT SITE WAS A FORMER GASOLINE STATION. UNKNOWN AT TIME OF CALL WHO IS RESPONSIBLE FOR CLEANUP.

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DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was VOUGHT Referred to Tim DeMeo for follow up (JHO 6/18/01)

Con Ed e2mis #137718:

6-18-01 @ 12:15

While working at 200 w 76 st K Watts # 19705 of construction management reports that Felix contractors while digging an excavation on customers property to install an a.c. service they discovered 10 gallons of an unknown oil & gasoline mix. Felix was working for Con Ed at the time the spill was discovered.

05/06/03 @ 9:30 – As per Jimmy Delia on 05/02/03 the clean up was completed by the contractor and 6 drums of non-haz contaminated soil was transported by Astoria Transportation for disposal.

04/12/04

TRANSFERRED FROM DEMEO TO VOUGHT. ROMMEL

10/13/06: This spill is transferred from Mr. Koon Tang to Q.Abidi. Contacted Mr. Tony Delgado at (212)580-6763 he said he will find out about the spill and he will call me back. –QA

10/25/06: Called Mr. Tony Delgado and talked to Mr. Stephen Martis he said he will find out information of spill and he will call me back. –QA

11/10/06: Called at (212)580-8383 and talked to Mr. Dave Duke (Con Edison Environmental). He said Mr. Kerry Watt, Construction Manager knows about it. He was involved in cleanup of this spill. Mr. Dave Duke already e-mail to him. Mr. Kerry Watt will be available on November 13. As soon as Kerry Watt will reply to Mr. Dave he will contact me regarding spill. –QA

11/14/06: Mr. Dave Duke called me and said he needs more time to dig out the information of the spill. In next week he will send information to me about the spill. –QA

11/16/06: Called Mr. Bharat Mukhi he said he will fax me the lab results of soil sample. –QA

11/20/06: Talked to Mr. Mike Daughtrey about spill that this spill was previous gas station it needs additional investigation. Mr. Mike will find out the owners name of the spill and he will call me back. Mr. Bharat Mukhi called me he said he will find out the name and address of the spill and he will call me back. –QA

12/13/06: I wrote a letter to Mr. Paul Wertheimer on dated 12/12/06 at the address: Jewish Community Center / The Upper West

Side, Inc. 332 Amsterdam Avenue, New York, NY 10023–8205. The Department requires additional investigation to determine if there has been an impact to groundwater and to fully delineate soil and groundwater contamination. Prepare a Work Plan and submit it for review of Department. –QA

01/12/07: This spill case transferred to J. Kolleeny. Spoke to Paul Wertheimer of Jewish Community Center in Manhattan (JCC) in mid–December, asked for info about this spill and activities associated with removal of Exxon Station from this site. He mentioned that a vapor extraction system had been installed, said he would get back to me. On Jan. 5, 2007, received letter from Mr. Wertheimer (in eDocs) stating spill of 50 gallons occurred during filling of generator storage tank in basement, spill was contained and cleaned up. Also stated there is a vapor barrier under building. I sent email back (in eDocs) saying 50–gal spill in basement is not related to this spill case, which is related to contamination from former gas station. Asked if JCC has any documentation on actions taken to address contamination from gas station – phase I & II envt'l site assessment reports, UST closure reports, etc. PW faxed me a report by AKRF, Inc. (Env't'l Consultants) addressed to Kerry O'Dowd of DEC, dated Jan. 18, 2000, with cover letter to Anthony Sigona of DEC dated May 8, 2000. Report states that 10 USTs were removed from Exxon sta. in 1995, contam. soil found, spill reported no. 9413181. Exxon removed some contaminated soil and spill was closed in 9/96.

In July 1999 during groundbreaking for new JCC building, old fuel oil UST and O/W separator tanks found, with large amounts of contaminated soil. This, along with a series of odor complaints by neighbors during construction activities, led to spate of new spill reports: 9904938, 9904995, 9904998, and 9905193, under address 332 Amsterdam Ave. All were subsequently closed, mostly by Sigona in '03, one by Dave Harrington (Central Office) in '04.

AKRF rpt. (in eDocs) goes on to summarize removal of old tanks, removal of soil/rock to depth of 35 feet, extending a little beyond site boundaries. Rpt. states they are in process of removing add'l contaminated soil, down to bedrock and curb line. Said end–pt. samples will be taken, and proposed installing geonet vapor barrier on exterior of foundation walls down to competent rock, with vapor collection pipes within geonet layer connected to header pipes near top of foundation walls. Pipes to be connected to blower which will discharge to carbon treatment system. Also, underslab drainage sump will be enclosed and connected via vacuum pipe to vapor treatment system. Cover letter to Sigona states that vapor extraction piping system was installed around foundation exterior, is about to be covered in concrete, and that K. O'Dowd had verbally approved system but they never set up formal stip. agreement, and JCC would like to have written DEC approval for system. I spoke with PW on 1/12/07, asked if there's any follow–up documentation from AKRF for proposed add't'l soil removal/end–pt. sampling, and to confirm if vapor system has active blower, in which case discharge must be sampled and regulated. He said he will contact AKRF and get back to me. – J. Kolleeny

01/19/07: On 1/16/07, received fax from Paul Wertheimer of JCC with basement sump water analytical results (in eDocs) for sample taken in July 2004 to see if discharge to sewer is in compliance with NYCDEP requirements; sample results show target compound levels well below DEP limits. Also, received email from PW saying he checked venting system, which does have blowers, but he confirmed that blowers were off and looked like they'd been off for quite a long time. Based on AKRF report's description of excavation work done and fact that water in basement sump did not appear to have any petroleum contamination when sampled in July 2004, it appears that contamination at this site caused by former gasoline station has been adequately addressed, and it seems likely that discovery of gasoline/oil mix in soil by Con Ed workers that lead to this spill report was a small pocket of residual contamination, which was then dug out and drummed. No further action is required, and this spill is closed. See also related spills 9904938, 9904995, 9904998, and 9905193, all of which have been closed. – J. Kolleeny

**Map Identification Number 122** **HERTZ RENT A CAR**  
 210 W. 77TH ST.

MANHATTAN, NY

**Spill Number: 0706612**

**Close Date: 09/24/2009**  
 TT-Id: 520A-0089-860

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1176 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: hrpatel

Spiller: C/O CHAPMAN CONSULTING – RICLAND LLC.  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: JEFF ANDERSON

Spiller Phone: (212) 888-7400  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (201) 876-9400

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 09/13/2007 |                     | OTHER          | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE         | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | GROUNDWATER          |

**Caller Remarks:**

26ppm of gasoline detected in soil. Groundwater showed 101ppb of benzene. Caller believes spill was caused by historical spillage on property.

**DEC Investigator Remarks:**

09/14/07–Hiralkumar Patel. spoke with Mr. Anderson. asked him to send analytical data with site plan including sampling locations, for review. he will send full report lateron.

Jeff Anderson Atlantic Environmental Ph. (201) 876-9400 Ext. 303

(201) 918-1218 (C) email: janderson@solutionsenvironmental.com

spoke with Joel Weinstein (212-888-7400) at Chapman consulting. as per Mr. Weinstein, they used to manage this property, but no more. he asked to contact Hertz.

PBS #: 2-453277. as per PBS record, site has two in-service 1000 gal gasoline USTs and three closed out 550 gal gasoline USTs.

left message for Tracy Masella (201-307-2423) at Hartz corp.

spoke with Ms. Masella. she asked to contact Tim Egan. as per Mr. Egan, Hertz has leased this site.

Tim Egan

**\*\*tank owner's representative\*\*** The Hertz Corporation Environmental Program Manager 225 Brae Blvd Park Ridge, NJ 07656 Ph. (201) 307-2526 email: [tegan@hertz.com](mailto:tegan@hertz.com)

asked Mr. Egan to provide property owner's information. Mr. Egan also mentioned that there is an excavation going on at next door property (don't know which side).

alternate add: 206-210 W 77th Street

spill reported in neighbourhood:

1. 219 W 77th Street: National car rental. Spill #: 0312284. this site is in front of Hertz car rental site. found groundwater contaminated during tank removal. DEC Ketani has asked for another set of groundwater sampling. spill still open.

2. 348-354 Amsterdam Avenue. alternate add: 202-204 W 77th Street. spill #: 9808769. spill was reported as found contaminated soil. case closed. no notes. [propertyshark.com](http://propertyshark.com) shows garage at site. <-----

received call from Mr. Egan. as per their records, property owner is:

Richard Chapman

**\*\*property owner\*\*** Ricland LLC. (owner of property) Chapman Consulting LLC. 770 Lexington Avenue 18th Floor New York, NY 10021 Ph. (212) 319-0939 Ext. 306 Fax (212) 319-1841 email: [richard159@usa.net](mailto:richard159@usa.net)

left message for Mr. Chapman.

received call from Mr. Chapman. he is property owner. they did investigation as planning to convert existing building into residential complex with offices on ground floor. they are also planning to add floors to it. ask him to do further delineation of soil and groundwater contamination.

received phase II summary report from Mr. Anderson. abstract:

- installed six borings (SB-1 to SB-6) adjacent to the two 1000 gal gasoline USTs, located in the basement - two sump wells (BW-01, BW-02) are located within the UST tank field in basement. <----- - installed three additional borings (SB-7 to SB-9) in the vicinity of the heating oil UST located under the sidewalk in front of the building, along W 77th st - borings SB-1 to SB-6 were advanced to depth of between 2.5 ft bg and 9.5 ft bg - borings SB-7 to SB-9 were advanced to depth of between 4 ft bg and 7 ft bg (unknown depth of heating oil UST invert) - one soil sample was collected from each borings (total of 9 soil samples) and one water sample was collected from each sump well (total 2 samples) - PID readings during boring, were between non-detect and 15 ppm except SB-4 (300 ppm) <----- - sample SB-4 was taken at 2.5 ft bg <----- - found high Xylene contamination in sample SB-04 (26,000 ppb at 2.5 ft bg) <----- - found contaminated water from sump well BW-02 (Benzene: 101 ppb, Toulene: 196 ppb) <-----

report missing following: – site map is missing locations of dispenser islands, remote fill ports, previously closed 550 gal gasoline USTs, fill port for fuel oil UST, fuel oil UST invert depth – detailed soil boring logs – depth of sump wells – analytical data package from laboratory

requires following: – registration of 1000 gal heating fuel oil UST – sampling, at least 5 ft, below depth of abandoned UST invert under sidewalk as samples taken to max depth of 7 ft (tank invert could be at 6 ft and was abandoned)

spoke with Mr. Anderson. he mentioned that submitted report was just a summary, not full report. he will send detailed report soon (by Sep. 31). asked him to include boring logs, well depth, how wells were installed etc. he also mentioned that Phase I was done at site. asked Mr. Anderson to submit Phase I report.

10/11/07–Hiralkumar Patel. spoke with Mr. Anderson. he is no longer working on this project. he will provide contact number for person working on–site.

left message for Mr. Egan to submit Phase I and detailed Phase II report. spoke with Mr. Chapman. he will send copy of previous reports.

10/15/07–Hiralkumar Patel. received message from Mr. Egan. left message for Mr. Egan to submit previous reports and RAP based on investigation work done till date.

10/18/07–Hiralkumar Patel. received Phase I and previously submitted Phase II summary report (not full Phase II). abstract of Phase I:

– local topography generally slopes to south – property has been graded with an average elevation of approx. 77 ft above mean sea level – shallow groundwater in the site area is expected to flow in general west, northwest direction – subject property is improved with a six story commercial building – fill cap was observed in sidewalk on the north side of building – it appears that heating oil tank is located beneath the sidewalk – historically, a carpet cleaning was located on the site and dwelling/stables – since 1929, the site has functioned as a car garage – identified two active 1000 gal gasoline USTs and three former 550 gal gasoline USTs <----- – based on historical sanborn maps, observed that the former location of three 550 gal USTs appears to be the same location as the currently active 1000 gal USTs

received email from Mr. Egan. he mentioned that Atlantic environmental did work for building owner and he only has summary report. he also sent letter with current tank test on two 1000 gal gasoline USTs. he also mentioned that during construction on adjacent property, which surrounds subject site on two sides, they noticed petroleum odor and found crushed tanks at site. Hertz tested entire gasoline tank systems and found tight.

spoke with Jeff at Atlantic environmental. as per Jeff they were hired to do certain work and they don't have full report.

spoke with Blaise Turi at Chapman consulting. asked him to provide complete Phase II report (instead of summary) with all missing information.

received call from Jeff from Atlantic. he will send missing information in Phase II.

10/18/07–Hiralkumar Patel. visited site. met Abdul at site. he showed locations for gasoline tanks in basement. no oil stains on

top of tank location. no odors inside basement.

visited next door construction site, which is located at 348 Amsterdam Avenue. met Dan Kerendi (212-362-9605), construction supervisor at site. as per Dan, they removed about 12 tanks from site. no contamination was found around those tank. found contamination in only one corner of site but it was too deep than tank located. currently they are removing soil from area which is close to Hertz's site and along foundation wall where gasoline tanks are on Hertz's property. asked Dan to monitor site for any contaminated soil. they dug remaining site to about 30 ft bg and did not encountered any groundwater. asked Dan to register removed tanks.

10/22/07-Hiralkumar Patel. received letter from Mr. Egan. abstract:

- site has two double walled fiberglass gasoline USTs in basement. - dispenser island is located on first floor. - USTs and lines are continuously monitored by a Veeder Root in-tank gauging system. - Hertz tested their tank system including pipings and all passes. - no current leak from existing gasoline system. - groundwater samples from sump wells, during Phase II, were collected by simply lowering bailer down and no purging was completed prior to sample collection and no sheen or product was observed

no word about fuel oil system under sidewalk.

spoke with Mr. Egan. asked him to find depth of sump well and see if there is a true groundwater in sump well (as no groundwater encountered in next door construction site which has excavated below subject site basement). also asked him to see if heating oil tank is active or not and to test heating oil system. Mr. Egan mentioned that they installed gasoline tanks at site, but not sure about heating oil tank. he will find who installed heating oil tank (owner or Hertz). they will register heating oil tank.

10/26/07-Hiralkumar Patel. received call from Jeff. he will send detailed report soon. he asked for responsibility of spill cleanup based on letter from Hertz submitted earlier. explained to Jeff that the department consider both owner and tenant responsible for cleanup.

received call from DEC Urda. he received call from owner's attorney Mr. Periconi asking for STIP.

James J. Periconi, Esq. Periconi, LLC PH. (212) 213-5500 Fax (212) 213-5030 e-mail: jpericoni@periconi.com

11/01/07-Hiralkumar Patel. left message for Mr. Egan regarding information about sump well and heating oil UST.

spoke with Mr. Egan. as per him, they never used heating oil tank and don't know who installed it. they are using gas heating system since they are on-site. he measured depth of sump well and found bottom at about 9 ft and less than an inch of water. Mr. Egan believes that water in sump well could not be true groundwater and could be surface water from basement floor.

sent STIP to Mr. Egan and Mr. Chapman with DEC Urda's review and approval. emailed copy of STIP to Mr. Egan, Mr. Chapman and Mr. Periconi.

11/23/07-Hiralkumar Patel. DEC Urda received STIP and DEC Region 2 Director signed the STIP. DEC Urda send email to Mr. Periconi with copy of fully executed STIP.

12/03/07–Hiralkumar Patel. received letter from Neale Bedrock, attorney representing Hertz. as property owner signed a STIP, Hertz is not taking responsibility of any contamination.

01/11/08–Hiralkumar Patel. received work plan from Mr. Anderson from Atlantic environmental. they will install 6–8 soil borings around tanks and piping. they proposing to install borings to depth equivalent to tank bottom and piping. he only proposes investigation around gasline tank and piping, but no indication about investigation around heating oil tank undre sidewalk. proposing to convert one boring, closest to tank field, into temporary well.

from previous investigation report, found that soil samples were taken from only three sides of heating oil tank. there was no sample from south side of tank. previous boring SB–4, where high xylene found, was located on south side of heating oil tank.

Mr. Anderson submitted boring logs for previous borings. from boring logs, groundwater was encountered at depth of 9 ft bg. but as per construction site next door, they did not found groundwater to depth of 30 ft.

received call from Mr. Anderson. as per Mr. Anderson, previous soil samples around heating oil tank were taken at 7 ft depth and after that they got refusal due to rock. aksed Mr. Anderson to take soil samples at least one foot below tank and piping bottom, if no refusal encounteres. also asked to take soil sample on south of heating oil tank, if possible. and to take groundwater sample from boring closest to previous boring SB–4, if they hit groundwater. Mr. Anderson mentioned that today during borings, they went deeper than previous borings and haven't found any groundwater. so previous groundwater in boring could be perched groundwater. asked Mr. Anderson to check for any perched groundwater and if not, take deepest dry and most contaminated soil samples at previous boring SB–4. asked Mr. Anderson to submit revised work plan.

01/31/08–Hiralkumar Patel. received call from Mr. Anderson. they got analytical results. asked Mr. Anderson to send sample analyticals and site map with sampling locations, for review.

02/08/08–Hiralkumar Patel. sent email to Mr. Anderson requiring report submission. received email from Mr. Anderson. will submit report by end of Feb. 2008.

03/18/08–Hiralkumar Patel. received investigation report from Mr. Anderson. abstract:

– topography of the surrounding area is generally flat and depth to groundwater at the site is estimated to 35 ft bg (based on information from adjacent construction site, where groundwater was found at 35 ft bg) – soil borings were advanced around the USTs and product supply lines – soil borings SB–10 through SB–18 were advanced to depths of between 1 ft bg and 8 ft bg due to mechanical refusal – PID readings were between non–detect and 15 ppm for all borings – no viable soil samples were recovered from the borings B–15 or 16 due to sand (no recovery) and in SB–17 or 18 due to sampling equipment refusal onto soild bedrock – soil samples collected from boring SB–10 to SB–14 – due to shallow refusal, unable to advance borings below the groundwater table

conclusions: – determined that the contamination is limited to immediate area of the USTs – as bedrock was encountered at less than 2 ft below floor level and soils encountered were found to be limited to sand and gravel in the UST excavation, the amount of soil contamination is minimal – determined that groundwater is more than 30 ft bg, it is clear that the tank wells contain trapped water and not waters connected to groundwater

recommendations: – current tenant lease is due to expire in Feb. 2009; as part of lease, the tenant is required to remove the tanks. – remedial activities relating to sand/gravel and trapped rain water will be conducted at that time

no contamination found in any samples taken recently. samples SB-10 and SB-11 were taken close to previous boring SB-04. both samples taken deeper than SB-04. during previous Phase II investigation, found black sand and fill material in SB-04 and found 300 ppm PID reading in that boring. so contamination in SB-04 was found right above bedrock.

spoke with Blaise Turi (Ext. 301) at Ricland LLC. explained him that contamination has found in only one sample SB-04 at 2.5 ft depth and that is on top of bedrock. to confirm containment of such contamination, the department requires true groundwater sample at the site. or else they can excavate soil and remove that contamination. if takes groundwater sample and finds clean then only the department can wait for a year before tenant's lease expires and remove tanks and contaminated soil in Feb. 2009. also mentioned to Mr. Turi that depth of tank bottom under sidewalk is still unknown and that tank might be causing contamination at the site. asked Mr. Turi to talk to Mr. Anderson and to call back with decision about either bedrock well or excavation at the site.

left message for Mr. Anderson at Atlantic environmental.

received call from Mr. Anderson. he mentioned that an employee, working at the site, confirmed that there was an aboveground heating oil tank in basement and was removed long time back. there was no tank under a sidewalk. Mr. Anderson mentioned that excavation around SB-04 is not possible without removing existing tanks. with these provided information, asked Mr. Anderson to install well for groundwater sample. if groundwater finds clean then only the department can wait for another year or else remediation must be started.

spoke with Mr. Turi. asked him to schedule well installation and to provide work schedule.

03/25/08-Hiralkumar Patel. spoke with Mr. Turi. he will call back with work schedule for well installation.

03/28/08-Hiralkumar Patel. received call from Mr. Anderson. he asked for letter for well requirement. sent email to Mr. Chapman and Mr. Anderson mentioning that as per CAP for STIP, the department requires complete (horizontal and vertical) delineation of contamination. and under that requirement, the department requires monitoring well. no separate letter will be issued.

04/24/08-Hiralkumar Patel. received call from Mr. Anderson. he mentioned that Hertz require confirmation from the Department regarding installation of well.

Neil Bedrock law dept. at Hertz PH. (201) 307-2902 email: nbedrock@hertz.com

left message for Mr. Egan and Mr. Bedrock requiring installation of monitoring well.

received message from Mr. Periconi, attorney representing owner. he mentioned that Hertz refusing access to site for well installation. received Mr. Bedrock's email address from Mr. Periconi.

04/25/08-Hiralkumar Patel. left message from Mr. Egan regarding well installation. sent email to Mr. Egan, Mr. Bedrock, Mr. Chapman and Mr. Periconi regarding requirement of well installation.

05/16/08-Hiralkumar Patel. spoke with Mr. Anderson. they installed well yesterday and will sample next week. they installed well inside basement to depth of 35 ft below basement floor.

06/19/08–Hiralkumar Patel. received call from Mr. Anderson. they received sample analyticals and found Benzene contamination. asked Mr. Anderson to submit report. asked him to include all previous and current borings/well locations on same map.

06/30/08–Hiralkumar Patel. received groundwater investigation report. abstract:

– topographic elevation at the site is approx. 77 ft above mean sea level – one groundwater monitoring well was advanced in the area of former soil boring SB–04 – well was installed to a depth of approx. 30 ft below basement floor; well screen was installed from 10 ft below surface to 30 ft – subsurface morphology consisted of cobbles and fill material with sand and gravel to approx. 6 ft, followed by weathered bedrock to approx. 24 ft and competent bedrock was encountered at 24 ft – petroleum odors were encountered for the initial 10–15 ft below the floor surface – groundwater was encountered during well installation at approx. 19 ft below basement ground surface; static well after well development was at approx. 24 ft below the basement floor – found VOC contamination in groundwater

-----MW-1 Benzene-----227 Toluene-----33 Ethylbenzene-----87  
Xylene-----147 Naphthalene-----209

summary:

– no PID found in soil from 0 to 6 ft below basement floor – highest PID values found at 7 ft depth, below basement floor, in weathered bedrock

spoke with Jeff at Atlantic regarding machine used to install deep bedrock well inside basement. he mentioned that rock hammer was used for well installation. as per Jeff, current building will be demolished and then will be redeveloped.

left message for Mr. Chapman to know proposed redevelopment plans.

01/14/09–Hiralkumar Patel. received email from Mr. Turi and Mr. Anderson (Atlantic environmental). Hertz hired Envirotrac to remove gasoline tanks and they are removing now.

02/20/09–Hiralkumar Patel. received UST removal report. abstract:

– removed two 1000 gal gasoline USTs, three dispensers, one remote fill and associated lines – elevation of site is approx. 78 ft above mean sea level – USTs and pipings were inspected and found in good condition; no holes or cracks were observed – UST excavation consisted of dry, light brown, engineered pea gravel to a depth of approx. 7 ft bg – underground piping and remote fill excavations consisted of apparent competent bedrock – no groundwater was encountered in any excavations – in order to determine the depth of bedrock beneath the removed tanks, the UST excavation was continued vertically beyond the initial pea gravel layer to an approx. depth of 8 ft bg, where competent bedrock was encountered – during additional excavation activities under tanks, moist/grey pea gravel, exhibiting a slight odor and a PID reading of 193 ppm was encountered from approx. 7.5 to 8 ft bg, approx. 6 inches beneath the initial dry/light brown pea gravel layer located immediately beneath the removed tanks <----- – sample of pea gravel exhibiting a PID response was collected for analysis – no other soil samples collected as pipings were on bedrock – groundwater sample was collected from previously installed well MW–1 – groundwater was detected at 12.57 ft below the top of well casing – no contamination found in soil sample – VOC contamination found in groundwater sample

-----MW-1 (sampling in Jan. 2009) Benzene-----130 Ethylbenzene-----120

02/24/09–Hiralkumar Patel. spoke with Mr. Turi. mentioned to him that based on submitted tank closure report, no further action required in referenced to previous gasoline tanks. but the department still requires cleanup of contamination soil found in previous boring SB–04. Mr. Turi mentioned that they are selling property. told him that spill cleanup is required under the signed STIP agreement. mentioned to him that new owner must be informed about signed STIP. Mr. Turi asked to talk to Mr. Anderson.

spoke with Mr. Anderson. he mentioned that previous boring SB–04 was located in area of tank excavation. he mentioned that tanks were installed in bedrock and during tank removal, no soil was found, but only pea gravels. asked him to submit scaled site plan with excavation boundaries and previous boring and well locations.

03/03/09–Hiralkumar Patel. received message from Mr. Anderson. will excavated soil, around previous soil boring SB–04, on 03/05/09.

03/05/09–Hiralkumar Patel. received message from Mr. Anderson. they started removing contaminated soil in area of previous boring SB–04. during excavation they found old abandoned gasoline tank. they continue excavation and will remove tank and any contaminated soils.

03/19/09–Hiralkumar Patel. received report from Mr. Anderson. abstract:

– excavated area around previous boring SB–04 and found previously unknown 550 gal tank – UST was encased in concrete with some areas free of concrete, where steel was visible – thick layer of concrete was the cause for refusal of SB–4 – top of UST was located below a concrete pad approx. 4 ft bg – UST was approx. 3.5 ft in diameter and 7 ft long – approx. 80 gal of gasoline/water and sludge were removed – slight evidence of discharge was observed in material found between the bottom of tank and concrete base – concrete base was removed and found bedrock directly below the concrete base, no soil was present <-----  
– if there was a release at the tank, it would pass through bedrock, then to the water table <----- – excavation of UST removal was approx. 20 ft long, 15 ft wide and 7 ft deep – excavation was deepened in one area to a depth of 9 ft and confirmed no groundwater present within 2 ft of base of excavation

03/23/09–Hiralkumar Patel. received call from Mr. Anderson inquiring status of the spill case. mentioned to him that based on all available reports, the department requires three more quarterly groundwater sampling from an existing well.

sent email to Mr. Chapman requiring three round of groundwater sampling on a quarterly basis. email copied to Mr. Anderson.

05/05/09–Hiralkumar Patel. DEC Urda received request from property owner's attorney regarding letter for requirement of three rounds of quarterly groundwater sampling.

05/14/09–Hiralkumar Patel. sent letter to Mr. Chapman requiring three rounds of quarterly groundwater sampling for analysis of dissolved oxygen, pH, redox, alkalinity, VOCs and SVOCs. letter emailed to Mr. Chapman, Mr. Periconi, Mr. Leland (richard.leland@friedfrank.com) and DEC Urda.

after sending letter, found DEC Urda's email with the same letter that he sent out yesterday as I was out of office. spoke with Urda. he sent out email to involved parties to disregard letter from me.

05/15/09–Hiralkumar Patel. received groundwater monitoring report from Mr. Anderson. groundwater sample from an existing well was collected on 04/16/09 and found some contamination in it. will continue quarterly groundwater monitoring.

groundwater analyticals:

-----MW-1 Benzene-----187 Ethylbenzene-----336 Xylene-----112

08/19/09–Hiralkumar Patel. 4:08 PM:– received GW monitoring report from Mr. Anderson. groundwater sample from existing monitoring well was collected on 07/16/09.

groundwater analyticals:

-----MW-1 Benzene-----132 Ethylbenzene-----219  
Xylene-----15 1,2,4-Trimethylbenzene-----349

four rounds of groundwater sampling conducted since May 2008: 05/29/08, 01/19/09, 04/16/09 and 07/16/09. concentration for benzene, toluene, xylene and naphthalene has been reduced but concentration for ethylbenzene and 1,2,4-trimethylbenzene has been increased.

09/17/09–Hiralkumar Patel. 3:50 PM:– spoke with Jeff regarding current status of the site. Jeff mentioned that site has been sold and new owner will redevelop the site.

Jewish Board of Family & Children's Services, Inc.

**\*\*new owner\*\*** 120 W 57th Street New York, NY 10019–3320 Attn.: Ellen Josem PH. (212) 582–9100 email: Ejosem@jbfcs.org

09/23/09–Hiralkumar Patel. 3:22 PM:– spoke with Ms. Josem. due to financial conditions, they choose to keep garage business (Hertz rental) at the site for few years and will redevelop this site once have enough source. she asked to contact Susan Bear (212–632–4706, email: SBear@jbfcs.org) regarding future plans and any tank that will be installed at the site for Hertz's use.

4:10 PM:– received message from Jeff. he mentioned that Hertz is not planning to install any more tanks at the site.

09/24/09–Hiralkumar Patel. case closed based on following:

– all tanks removed from site – no contamination found during tanks removal – groundwater at site is 24 ft below basement floor (approx. more than 35 ft bg) – contamination in groundwater decreased

NFA sent to Ms. Bear. letter emailed to Ms. Bear, Mr. Chapman, Mt. Egan and Jeff.

**Map Identification Number 123**

**CAR RENTAL**

**Spill Number: 1505465**

**Close Date: 12/21/2015**



221-223 W77TH ST

MANHATTAN, NY

TT-Id: 520A-0313-292

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1228 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: 221-223 W 77TH ST  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Spiller: MATT BOECKEL - CAR RENTAL

Spiller Phone:

Notifier Type: Other

Notifier Name:

Notifier Phone:

Caller Name:

Caller Agency:

Caller Phone:

DEC Investigator: SXMAHAT

Contact for more spill info: MATT BOECKEL

Contact Person Phone: (631) 234-4280

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/20/2015 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | UNKNOWN | 0                  | UNKNOWN | SOIL                 |

**Caller Remarks:**

Oil from unknown source discovered in soil. Further investigation and cleanup is pending.

**DEC Investigator Remarks:**

8/20/2015 - Feng - Duty Desk. Talked to Matt Boeckel of Associated Environmental (631-234-4280). The contractors were doing excavation, i.e. chipping down the bedrock using jack hammer, and found oil coming into the excavation. No tank is reportedly onsite. He will inspect the site tomorrow and will provide more information.

Assigned the spill to Santosh Mahat for a site inspection 8/21/2015.

8/21/15: Mahat t/c: DEC Mahat contacted Matt and he mentioned that ground water has been impacted while the property was excavated. A complete remedial work plan for the project and will submit to the Department for approval.

DEC Mahat received an email update from Matt:

Santosh the following email provides a summary of the information I have to date on the above noted project:

The site was formerly improved with a six story mixed use building. The first floor and sub-grade level were occupied by National Rent a Car. National Rent a Car is listed under PBS registration number 2-271292. The site is listed as having one 2,000-gallon gasoline UST closed in-place, three 550-gallon fuel oil USTs closed ~ removed as well as a 550-gallon and 500-gallon aboveground tanks in subterranean vault which were closed in-place.

The site had two (2) previous spills on file with the NYSDEC. Spill number 0310460 was for a 1-gal gasoline spill and was subsequently closed. Spill 0312284 was listed for gas unknown amount and was subsequently closed.

The former building has been demolished and the site is currently undergoing renovation. Part of the renovation entailed digging a deeper foundation. On August 20, 2015 while breaking up and removing bedrock from the northeast corner of the site groundwater was observed to be coming into the excavation. The water exhibited a strong petroleum (fuel oil/diesel) odor and there was a noticeable film of product present. The NYSDEC was notified and spill number 1505465 was assigned to the site.

Thank You,

Matt Boeckel

Associated Environmental Services, Ltd 25 Central Ave Hauppauge, NY 11788 NYC/NYS/NJ/Port Authority of NY/NJ MBE Certified

631.234.4280 631.234.4297 fax

Point of Contact: 223 West 77th Owner LLC

\*\*\*\*\* Owner 1700 Broadway 16FL NYC 10019 achaney@naftaligroup.com

8/24/15: Mahat e/c: DEC Mahat sent an CSL letter to above address and it has been uploaded on D2 for reference. DEC Mahat is waiting for a report as mentioned on the letter.

12/21/15: Mahat E/C: DEC Mahat received a closure report on the spill case. It has been uploaded on D2 for reference.

Based on the spill closure report, a 2000 gallon tank was previously abandoned in place was found during the demolition. Tank is now removed and all end point sample are below CP 51 Guidance value. Based on the report, the Department does not warrant any further investigation on the spill case. Source is removed leaving a clean end points. Spill case is closed on NYSDEC Spill Database.

**Map Identification Number 124**



**NATIONAL CAR RENTAL**

219 WEST 77TH STREET

MANHATTAN, NY

**Spill Number: 0312284**

**Close Date: 06/16/2008**

TT-Id: 520A-0101-349

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 1228 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE

Revised zip code: NO CHANGE

|                            |                                            |                                      |
|----------------------------|--------------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN   | Spiller: ARNOLD PENNER – SYLGAR            | Spiller Phone: (212) 980-6000        |
| Notifier Type: Other       | Notifier Name: DIANA NEWSOME               | Notifier Phone: (845) 348-6355       |
| Caller Name: DIANA NEWSOME | Caller Agency: RND SERVICES                | Caller Phone: (845) 348-6355         |
| DEC Investigator: rvketani | Contact for more spill info: DIANA NEWSOME | Contact Person Phone: (845) 348-6355 |

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/04/2004 |                     | OTHER          | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |        | Quantity Recovered |        | Resource(s) Affected |
|------------------|----------------|------------------|--------|--------------------|--------|----------------------|
|                  |                | Units            |        | Units              |        |                      |
| GASOLINE         | PETROLEUM      | 0                | POUNDS | 0                  | POUNDS | SOIL                 |

Caller Remarks:

leaking UST caused the spill. Unknown amount spilled. Not sure if clean up has started.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was ROMMEL 2/5/2004 Sangesland spoke to Sharima Ryan of RND Services (845-348-6355). She says RND was called in to properly abandon several 550 gal USTs at the site which had been incorrectly abandoned some time in the past.

Phase I on the site says up to 6 – 550's existed. So far RND has found 3 – 550's which are filled with a combination of sand, water and gasoline. Several borings made through the tanks reveal the area under the tanks have gasoline contamination problems.

Within the next 1-2 days, RND will be submitting a plan to the owner discussing either removing the tanks and contamination or treating it in place. Bedrock in this area (West 77th St) is very shallow.

05/21/04

Email from Sharima Ryan:

We removed 3 gasoline UST's earlier this week and excavated a limited amount of contaminated soil (not more than 20 yards) and at this point are very limited in what we can do as a way of excavating additional material. In several parts of the excavation we are encountering ledge rock and using a larger machine to excavate is not feasible (unable to get it into the basement). We have placed ORC in the excavation (24' X 24') which is currently open and plan to install three wells within the excavation. The wells will be installed off to the sides of a concrete pad that the tanks were on. We will then backfill. There is some water in the excavation – this may be groundwater. We have soil samples of the sidewalls in some areas. I wanted you to comment on our

plans because going back and doing any additional work at this site is extremely difficult and if there was anything additional you would like us to do, I would rather try and accomplish it now.

Sincerely,

Sharima Ryan

RND Services Inc.

10 Waldron Avenue

Nyack, NY 10960

845-348-6355

Called Ms. Ryan, approved proposed work. Required that she document the condition of the bedrock surface and submit report to my attention. Rommel.

>>> Jennifer Rommel 08/20/04 04:0PM >>>

Sharima,

Reviewed 8/5/04 Tank Closure Report and agree with recommendation for gw sampling. Please provide report at the end of the three months.

7/13/05 TAS (TXSMITH) Called Sharima Ryan of RND, that performed tank closure, she said the gw sampling was not completed because the owner/operator did not have RND perform the sampling. Will contact Mr. Penner to see if there is any information.

7/14/05 TAS Talked to Mr. Penner and he said that the site was cleaned up (as mentioned above) but was unsure of the follow up gw sampling. He said he would check and the sampling would be completed if it was not done. Groundwater sampling should be performed and the next steps can be determined by these results. This site should be transferred back to the region for followup.

3/30/07 – Austin – Trasferred to Ketani for further review – end

5/11/07 – Raphael Ketani. The site is listed in the NYC Property Tax, Property Shark, and the Spills database as National Car Rental Systems, Inc., 219 W. 77 Street, NY, 10024. Block and lot are 01169/0023. The site was a 5 story apartment building with stores at the street level. The owner of the property is listed as Sygler, LLC, 545 Madison Avenue, NY, 10022 in the PBS registration #2-271292. The site has 5 550 gas tanks that were closed at the site. Two were closed in place and 3 were removed. One 2000 gal. gas tank remains active. There was gas contamination in the soil.

There was no paper file record, nor are there any E-docs. I tried to contact Sharima Ryan (845)348-6355, but could only leave a message.

5/14/07 – Raphael Ketani. James Wilson of RND Services (845) 348-6355 left a message stating that Ms. Ryan was on maternity leave

(back June 1) and that she was only occasionally checking her e-mails. He stated that I should contact him, instead.

5/16/07 – Raphael Ketani. I made contact with Mr. Wilson and asked him whether he was the case manager. He said Sharima was. I asked him to send any documents, pictures, etc. that RND had on the site as DEC had nothing. He said he will talk to Sharima and see what they can come up with.

8/1/07 – Raphael Ketani. Today I received the May 2004 Underground Storage Tank Closure Report and the 8/11/05 Technical Report for the groundwater. The groundwater results for the 8/4/05 samples still show concentrations that require remediation. The Closure Report was determined to be acceptable.

I contacted Ms. Ryan and told her that another round of groundwater samples was needed. She asked that I send her an e-mail to that effect. I sent the e-mail.

10/19/07 – Raphael Ketani. I contacted Sharima Ryan. She said that she just finished her review of the groundwater results. She said that they still show some hits, but they are better than in 2005. She said I should receive the analyticals next week.

11/9/07 – Raphael Ketani. I received the groundwater results.

11/14/07 – Raphael Ketani. I reviewed the 9/5/07 groundwater results. MW-1 had 3 VOC hits which were all very slightly above TAGM. MW-3 had 6 VOC hits which ranged from 12 ppb to 60 ppb. MW-2 had 9 VOC hits which ranged from 8 ppb to 380 ppb. At MW-2, 5 VOC hits were 120 ppb to 380 ppb. Depth to water is about 2.5' below grade.

11/16/07 – Raphael Ketani. A letter with map was sent to Ms. Ryan requesting the installation of 8 additional groundwater wells. The work requested includes soil and water sampling, groundwater flow direction determination, indication as to where the in service and other tanks are located, and construction of maps showing the streets adjacent to the property, the north direction and a scale.

12/5/07 – Raphael Ketani. I spoke to Ms. Ryan (845) 348-6355. She said that she thought the 11/16/07 DEC letter was asking for a lot of work. She also didn't have the record in front of her and asked that I give her time to review the file and call back. I said that would be alright.

12/12/07 – Raphael Ketani. I left another message for Ms. Ryan to call me back.

2/25/08 – Raphael Ketani. I tried to contact Ms. Ryan, but could only leave a message.

3/24/08 – Raphael Ketani. I spoke to Ms. Ryan. I asked her about the November 15, 2007 DEC letter that I had sent. She said that her client balked at putting in 8 more wells as it is a large expense. She said that bedrock is very shallow and that they had installed 9 borings back in 2004. She said she would like to just do another round of sampling. I told her that since 9 borings had been done in the past and that since DEC had approved the 2004 Underground Storage Tank Closure Report and the 2005 groundwater Technical Report, DEC will only ask for another round of groundwater sampling and a survey of the groundwater flow direction. She said that RND Services is going to do sampling at other sites and that National Car Rental can be worked into the schedule. I told her I will send a letter to her memorializing our conversation today.

The letter was sent.

3/31/08 – Raphael Ketani. Ms. Ryan e-mailed me and wrote that they will sample the wells April 4.

4/24/08 – Raphael Ketani. Ms. Ryan e-mailed me that the wells were sampled as scheduled on 4/4/08 and that a report will be sent soon.

6/16/08 – Raphael Ketani. I received the 6/9/08 Groundwater Sampling Report on Friday, 6/13/08, when I was out for the day. I began my review today. Well MW-1 had 6 hits with 15 ppb being the highest value. Well MW-2 had 8 hits with values from 14 to 110 ppb. The highest hits were 100 ppb and 110 ppb. Over the past 4 years, the contaminant concentration reduction by natural attenuation have been significant. Well MW-3 had 2 hits with 12 ppb being the higher of the two.

Based upon the groundwater analytical results in the 6/9/08 Groundwater Sampling Report, I am closing the spill case.

**Map Identification Number 125** **APARTMENT 1-1** **Spill Number: 0607065** **Close Date: 09/21/2006**  
 101 WEST 85 STREET NEW YORK CITY, NY TT-Id: 520A-0098-749

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1231 feet to the NNE

**ADDRESS CHANGE INFORMATION**

Revised street: 101 W 85TH ST  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: SUPER OF APT. – APARTMENT 2-1 Spiller Phone: (212) 724-5851  
 Notifier Type: Citizen Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: Caller Phone:  
 DEC Investigator: SMSANGES Contact for more spill info: MARTA WHITE Contact Person Phone: (212) 877-6605

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 09/19/2006       |                     | OTHER            | NO                      |                    |                     |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN MATERIAL | OTHER               | 0                | GALLONS                 | 0                  | GALLONS             | SOIL                 |

**Caller Remarks:**

POLY AND LACKER FUMES; APT. IS BEING REDONE AND COMPLAINTANT CAN NOT STAND THE SMELL/ FUMES FROM MATERIALS BEING USED; COMPLAINS THAT IT IS MAKING HER SICK;

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 126** **101 WEST 85TH STREET**  
 101 WEST 85TH STREET

MANHATTAN, NY

**Spill Number: 0606644**

**Close Date: 09/11/2006**  
 TT-Id: 520A-0098-750

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1231 feet to the NNE

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: HRPATEL

Spiller:  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: MALARIE GILMORE

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (212) 689-1520

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 09/09/2006 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                   |                | Units            |         | Units              |         |                      |
| UNKNOWN PETROLEUM | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

**Caller Remarks:**

~5 gallons of

**DEC Investigator Remarks:**

09/11/06-Hiralkumar Patel. responded on 09/09/06. found oil stain on wall at vent pipe. no oil odor. super was out of country. visited site again today. met property manager Ari Paul (Ph. 212-873-4919). walked in tank room and boiler room. found no oil in any part these rooms. tank is aboveground. vent pipe is close to window of one of the apartment. asked property manager to clean oil stain from wall at vent pipe. found no oil stains anywhere else or odor inside building.

PBS#: 2-278300

**Map Identification Number 127** **IN FRONT OF ON WALK**  
 157 WEST 73RD ST

MANHATTAN, NY

**Spill Number: 0913358**

**Close Date: 05/19/2010**  
 TT-Id: 520A-0248-556

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1232 feet to the SW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: vszhune

Spiller: unk  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: ALEX

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (347) 865-1238

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 03/18/2010 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | UNKNOWN | 0                  | UNKNOWN |                      |

**Caller Remarks:**

between columbus and amsterdam ave – leaking from fill pipes by walkway – possible overflow of tank – no cleanup

**DEC Investigator Remarks:**

03/19/10– Zhune spoke to Alex Castro from DEP 347-865-1238. He passed by this building located at 157 West 73rd St. and saw little amount of oil coming out from the fill port that is located on the sidewalk in front the building. He spoke to the super of the building Erbesto Brusco 212-87764689. the super said that he will clean the spill. Mr. Castro came back yesterday and found out that more oil is coming out from the fill port approximately 1/2 gallon.

Owner 241 East 58 Corpotation. 211 West 20 Street New York, NY 10011 212-675-0593 Margaret Building Manager.

TTF sent to: Barry Zonon

213 West 20th Street

New York, Ny 10011

05/19/2010– Zhune. Stuyvesant Approved Oil sent copies of the tank tightness test, invoice of the installation of new fill and vent pipes and photos. The spill was on concrete. The result of tightness test show the tank and system tight Old fill and vent pipe were removed and new fill and vent pipe were installed. Spill Closed.

**Map Identification Number 128**

**SPILL NUMBER 0209565**

**Spill Number: 0209565**

**Close Date: 12/30/2002**



126 W 73RD ST

MANHATTAN, NY

TT-Id: 520A-0097-807

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1258 feet to the SW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Other  
 Caller Name: GABE RICCI  
 DEC Investigator: MXTIPPLE

Spiller: UNKNOWN  
 Notifier Name: DRIVER  
 Caller Agency: PARK AVE ASSOCIATES  
 Contact for more spill info: GABE RICCI

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (718) 401-2500  
 Contact Person Phone: (718) 401-2500

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/17/2002 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 10.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

tank was overfilled but they are not sure if the guage was bad. clean up crew on site.

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIPPLE CALLED GABE RICCI; PARK AVE. ASSOCIATES, WHO CONFIRMED THAT 5 TO 10 GALS. #2 HEATING OIL SPILLED. NO SOIL OR WATER WAS IMPACTED. DRIVER DID INITIAL CLEAN-UP. WITHIN HALF-HOUR, PARK AVE. ASSOCIATES CLEAN-UP CREW ARRIVED TO COMPLETE CLEAN-UP. CALLED HESS OIL CO. AT (201) 489-5100, WHO SUPPLIED THE PROPERTY Management company PHONE NO. (212) 382-3600. CALLED EDWIN; SUPER, WHO CONFIRMED THAT CLEAN-UP IS ALMOST COMPLETED.

E.R. 12/30/2002 Tipple spoke with management agent, confirmed 10 gal cleanup has been completed.

**Map Identification Number 129** **AVIS RENT A CAR**  
 216 WEST 76TH STREET

MANHATTAN, NY

**Spill Number: 9512434**

**Close Date: 01/05/1996**  
 TT-Id: 520A-0098-732

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1275 feet to the W

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: 10023

Source of Spill: GASOLINE STATION OR PBS FACILITY  
 Notifier Type: Other  
 Caller Name: TONY RIZZO  
 DEC Investigator: JMKRIMGO

Spiller: DEREK KUPPOLO – AVIS RENT A CAR  
 Notifier Name: TONY RIZZO  
 Caller Agency: ALVIN PETRO  
 Contact for more spill info: DEREK KUPPOLO

Spiller Phone: (212) 593-8458  
 Notifier Phone: (718) 461-5400  
 Caller Phone: (718) 461-5400  
 Contact Person Phone: (212) 593-8458

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/05/1996 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE         | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

no outside contamination – everything in sump hole

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was KRIMGOLD CLEANED UP BY SPILLER

**Map Identification Number 130** **AVIS**  
 216 WEST 76TH ST

MANHATTAN, NY

**Spill Number: 9512234**

**Close Date: 12/05/2003**  
 TT-Id: 520A-0101-369

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1275 feet to the W

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: 10023

Source of Spill: UNKNOWN Spiller: NONE – AVIS Spiller Phone:  
 Notifier Type: Fire Department Notifier Name: LT. SKEADOS Notifier Phone: (212) 570-4256  
 Caller Name: LT. SKEADOS Caller Agency: 25 LADDER CO – FDNY Caller Phone: (212) 570-4256  
 DEC Investigator: JMROMMEL Contact for more spill info: NONE Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/29/1995 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE         | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

odor of gasoline in cellar of building. – request callback

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was ROMMEL 12/5/03 Transferred from Engelhardt to Rommel Closed and referred to 0202753 for remediation Rommel

Map Identification Number 131



**COMMERCIAL BUILDING**  
 216 WEST 76TH STREET  
 AKA 2148 BROADWAY

MANHATTON, NY

Spill Number: 0711724

Close Date: 07/07/2011  
 TT-Id: 520A-0214-772

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1275 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: 10023

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: AXDORONO

Spiller: AVIS BUDGET GROUP INC – COMMERCIAL BUILDING  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: AVIS BUDGET GROUP INC

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (973) 496-6942

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 02/06/2008 |                     | UNKNOWN        | YES                     | NO                  |

| Material Spilled               | Material Class     | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|--------------------------------|--------------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE                       | PETROLEUM          | 0                | GALLONS | 0                  | GALLONS | GROUNDWATER          |
| XYLENE (MIXED)                 | HAZARDOUS MATERIAL | 0                | GALLONS | 0                  | GALLONS | GROUNDWATER          |
| BENZENE                        | HAZARDOUS MATERIAL | 0                | GALLONS | 0                  | GALLONS | GROUNDWATER          |
| MTBE (METHYL-TERT-BUTYL ETHER) | HAZARDOUS MATERIAL | 0                | GALLONS | 0                  | GALLONS | GROUNDWATER          |

Caller Remarks:

groundwater was tested in the area of a historic underground storage tank; it could have been impacted; test results showed elevated levels of these materials above togs; Ask for Phil Engle;

DEC Investigator Remarks:

Richard Reiss works for TRC environmental consultant.

Building is owned by Avis (Avis contact: Phil Engle 973-496-6942) Spilled material is all associated with a buried gasoline tank. Building has been sold and will be redeveloped. Underground storage tank shows contamination around it. This tank is scheduled to be excavated by April 2008. Upon excavation, proper endpoints/samples will be taken.

02/11/08–Hiralkumar Patel. left message for Mr. Reiss at TRC. 02/12/08–Hiralkumar Patel. received message from Mr. Reiss. spoke with Mr. Reiss. he will submit analytical data with site map.

02/14/08–Hiralkumar Patel. received sample analyticals from Mr. Reiss. found heavy soil and groundwater contamination. phase II was done by Langan engineering. left message for Tarek Khouri (212-479-5400) at Langan to submit report.

received email from Mr. Reiss with operator's information. Avis Budget lease this property and operates UST.

Richard Reiss, P.E. TRC Ph. (212) 221-7822 (O)

(917) 282-3102 (C) Fax (212) 221-7840 email: rreiss@trcsolutions.com

left message for Mr. Engle to submit report from Langan. sent email to Mr. Engle requiring submission of earlier reports, any phase I report and site history and future use.

Avis Budget Group, Inc. Attn.: Philip Engle 6 Sylvan Way Parsippany, NJ 07054 Ph. (973) 496-6942 Fax (973) 496-3441 email: philip.engle@avisbudget.com

02/15/08-Hiralkumar Patel. spoke with Mr. Engle. he will submit previous reports and property owner's information.

Downtown Realty Associates \*\*owner of 210 W 76th Street\*\* Attn. Susan Koff 167 River Road Rhinebeck, NY 12572-2067 PH. (845) 876-6618

left message for Ms. Koff.

02/19/08-Hiralkumar Patel. received message from Ms. Koff. called Ms. Koff, but she was busy and will call back.

02/22/08-Hiralkumar Patel. left message for Ms. Koff.

received phase II report from Mr. Khouri from Langan. abstract:

- site comprises two adjoining building lots: 2148 Broadway (aka 214-220 W 76th st, 2148-2158 Broadway) and 210 W 76th street (aka 208-212 W 76th Street) 90% of influent VOC levels from the initial steady state readings or if two months have elapsed since the start of SVE system operation, the air inlet wells will be switched to be used as air extraction wells and vice versa - if the influent air levels to the air discharge control system show a sustained decrease of >90 % in the VOC levels from the initial steady state level, then the air samples of the influent will be collected and analyzed via method TO-14 - if sustained decrease in influent VOCs of >90% is not observed, then post-remedial soil sampling will be performed at an appropriate time prior to when the construction of site building is completed, until which the proposed SVE system will be in operation - if the contamination levels in post-remedial soil samples exceed limit even after site construction activities are completed, then a SSDS will be installed to prevent vapor intrusion into the building

10/28/09-Hiralkumar Patel. 2:54 PM:- received message from Susan from Langa regarding comments/approval on SVE system design.

11/02/09-Hiralkumar Patel. 10:50 AM:- left message for Susan. 11:50 AM:- received call from Mr. Khouri. he mentioned that they are changing locations of proposed SVE points and will submit revised plan with more details. during conversation, asked Mr. Khouri about soil delineation north of sewer line in street. Mr. Khouri mentioned that owner is planning to conduct SVE installation work first as wants to start construction and will do soil delineation across street later on. informed Mr. Khouri that the department requires complete soil delineation along with installation of SVE pipes at vault area. 12:44 PM:- left message for (and sent email to) Mr. Ortega to submit work plan and work schedule for complete soil delineation (including soil sampling across street) before any comments on proposed SVE pipes installation in vault area.

11/04/09-Hiralkumar Patel. 12:00 PM:- received message from Mr. Khouri. he mentioned that they are planning to install borings tomorrow and will install SVE wells.

but as per Mr. Khouri, they were revising plan and i haven't received revised plan and i haven't approved any plan yet.

received message from DEC Lou Oliva. spoke with Lou. he received call from Steve Russo regarding approval of installation of SVE pipes. Lou asked about status. informed Lou that Langan is proposing to install SVE wells in coned vault area to expedite installation of crane for construction purpose. but the department requires complete soil delineation including soil boring

across sewer line under W 76th street before transferring case to remediation group and remediation group will review remedial action plan for comments.

3:57 PM:– left message for Mr. Khouri. 3:59 PM:– spoke with Mr. Gol and informed her that the department hasn't approved any work plan yet and Mr. Khouri left message informing that they are planning to do work tomorrow. asked Mr. Gol to clarify this. Ms. Gol will contact right person and asked him to call back. 4:14 PM:– received call from Mr. Khouri. he mentioned that they are going to do soil borings west of B-6 and inside vault area and have to install SVE wells before weekend as crane will be installed this weekend. asked Mr. Khouri to submit revised SVE plan and work schedule for complete soil delineation north of sewer line.

11/05/09–Hiralkumar Patel. received email from Mr. Khouri (at 4:54 PM on 11/04/09) including site map with revised locations of SVE wells. instead of 7 wells, now Mr. Khouri propose 5 wells: four on street and one in vault area. spoke with Mr. Khouri about revised plan and asked him to send email with more clarification as previous email only contains site map with well locations.

2:49 PM:– received email from Mr. Khouri: As I mentioned, the existing configuration is more than adequate to treat the contamination in question. As described in our design drawing, The system is designed to have a radius of influence of 20 feet. This is based upon Langan's experience in similar sandy/fill formations. The air flow rate per well is significantly greater than the minimum of 500 pore volume exchanges typically needed to achieve soil cleanup in such locations. Indeed, we selected a robust blower system to assure that we can pull plenty of air flow through the subsurface (positive displacement blower capable of up over 10 inches of mercury vacuum and up to 200 scfm). Referring to our attached design drawing, note that we have carefully arranged the SVE wells so as to assure that the radii of influence overlap considerably in the central portion of the contaminated zone. We expect that this overlap of SVE radii of influence will result in enhanced pore volume exchange in this zone. Note also that we purposely skewed the SVE wells closer towards the sidewalk to enhance this overlapping effect, without sacrificing our ability to remediate towards the center of the street. Over the system operational period, we expect to manage our air flows so that as specific SVE well clean-up, we will in turn divert more air flow to the more recalcitrant wells, in essence increasing their effective ROI. So, if SVE-5 proves to be more recalcitrant than other wells, we will easily divert more air flow to this well.

11/09/09–Hiralkumar Patel. 8:30 AM:– received email from Mr. Khouri. they installed one boring west of B-6 on 11/05/09 to a final depth of 19 ft bgs, where refusal encountered due to bedrock. maximum PID of 4.9 ppm was encountered at about 16 ft bgs. two soil samples collected for analysis. on 11/06/09, installed SVE-4 (within B2) with screen interval between 10 to 20 ft bgs and SVE-3 (within B4) with screen interval between 8 to 18 ft bgs.

11/10/09–Hiralkumar Patel. visited site. met Smita from Langan. they were doing soil delineation across the street on sidewalk. when i reached there, one boring was completed and Smita collected soil samples. found highest PID at 16–18 ft depth. found petroleum odors in soil stockpiled near boring. found four SVE wells installed on street.

11/12/09–Hiralkumar Patel. 1:55 PM:– left message for Susan at Langan.

11/13/09–Hiralkumar Patel. 10:00 AM:– spoke with Susan. she got sample analyticals back for sample B-7 (west of B-6) and B-8 (sample across the street). as per Susan, no contamination found in B-7 and contamination in B-8 at 16–18 ft depth is similar to diesel/fuel oil and not related to gasoline. asked Susan to submit sample data and will discuss if any more sampling needed.

11/16/09–Hiralkumar Patel. received email from Susan (at 4:33 PM on 11/13/09) including results of soil borings B7 and B8. B7 was

installed west of B6 and B8 was installed in the sidewalk on the north side of W. 76th Street, directly across from previously drilled B1. total of two soil samples were collected from each boring. one from the most impacted zone (if present) and one from the soil/bedrock interface. no contamination found in soil samples from B7 and soil sample at 26–28 ft depth from boring B8. found some VOCs and one SVOC above limit and high GRO and DRO in soil sample at 16–18 ft from boring B8.

|                           |             |                          |                                        |
|---------------------------|-------------|--------------------------|----------------------------------------|
| -----B-8-----limit        |             |                          |                                        |
| 16–18 ft Naphthalene----- | 22,500----- | 13,000                   | n-Propylbenzene-----8,400              |
| Isopropylbenzene-----     | 2,410       | 1-Methylnaphthalene----- | 98,700 2-Methylnaphthalene-----152,000 |
| GRO-----                  | 564,000     | DRO-----                 | 22,800,000                             |

12/08/09–Hiralkumar Patel. 3:45 PM:– received remedial action work plan from Susan.

12/11/09–Hiralkumar Patel. discussed with DEC Austin. after reviewing available information, Austin asked to transfer case to DEC Vadim.

case transferred from DEC Patel to DEC Vadim.

12/15/2009: This spill case was transferred to A. Doronova. – AD The Remedial Action plan proposes installation of SVE system, which involves discharges to atmosphere. Called and spoke with Ms. Susan Bianchetti regarding Stipulation Agreement for the site. Asked her for contact person info. Gave my e-mail address. AD

12/16/2009: Received a phone call from Mr. Khouri of Langan. He asked for a meeting with DEC to discuss the RAP and Stipulation Agreement. AD

12/17/2009: Discussed time for meeting with J. Kolleeny of DEC. Scheduled the meeting for December 22, 2009. Called to Mr. Khouri and confirmed the meeting date. Mr. Khouri told me that the client's attorney would like to attend the meeting. AD

12/18/2009: Discussed this site with John Urda of DEC. He will attend the meeting as well. AD

12/22/2009: I, Jon Kolleeny and John Urda attended the meeting with Susan Bianchetti and Tarek Khouri of Langan Eng. and Steven Russo of Sive Paget & Riesel P.C. (client's attorney). The proposed RAP and need for Stipulation Agreement were discussed. It was agreed that Mr. Russo will explain to his client that signing the Stipulation Agreement is necessary for proceeding with the proposed course of remedial actions (SVE system). AD

01/06/2010: Contacted Susan Bianchetti of Langan Eng. and asked for a Respondent info for Stipulation Agreement. AD

01/07/2010: Received the Respondent contact info. Prepared the Stip with CAP. AD

01/08/2010: Forwarded Stip to J. Urda for review. AD

01/25/2010: Stipulation Agreement was signed by Respondent.

01/26/2010: The RAP does not have SVES data sheet, benzene concentration estimate and does not propose air sampling for

laboratory analysis. Discussed the RAP with J. Kolleeny of DEC. Confirmatory soil sampling is needed to evaluate effectiveness of the remediation. Contacted S. Bianchetti of Langan and requested to submit missing data. AD

02/17/2010: Received the requested information. Discussed it with J. Kolleeny of DEC. AD

02/18/2010: Issued an approval letter for the RAP with some modification regarding frequency of influent and effluent air sampling. DL e-copy to eDocs. AD

08/09/2010: Received an e-mail from:

Ms. Doronova,

Attached is our monthly progress report for the SVE system installed in accordance with the December 8, 2009 Remedial Action Work Plan. Let us know if you have any comments.

Thank you, Jason

Jason J. Hayes, LEEDAP Project Manager Direct: 212.479.5427 Mobile: 917.859.4908 Fax: 212.479.5444

Langan Engineering & Environmental Services Phone: 212.479.5427 Fax: 212.479.5444 360 West 31st Street, 8th Floor New York, NY 10001 www.langan.com

DL the report to eDocs. AD

09/07/2010: Received an e-mail from Veronica Tilgao:

Ms. Doronova,

Attached is our August 2010 monthly progress report (Progress Report No. 2) for the SVE system installed in accordance with the December 8, 2009 Remedial Action Work Plan.

Let us know if you have any comments. Thank you.

Veronica Tiglao, LEED AP Assistant Project Manager

Direct: 212.479.5492 Mobile: 646.957.0997

Langan Engineering & Environmental Services Phone: 212.479.5400 Fax: 212.479.5444 21 Penn Plaza 360 West 31st Street, 8th Floor New York, NY 10001-2727 www.langan.com

DL the report to eDocs. Will review. AD

10/19/2010: Received a phone call from Mr. Hayes of Langan. He told me that the SVE system operated on the site since June 2010, and that latest sampling results show VOCs vapor removal is reaching asymptotic levels. Also, construction requirements for the

TCO (installation of utility connection and construction of a new street and sidewalk) required the system to be removed. Mr. Hayes asked for permission to shut down the system. Discussed this with J. Kolley. Later talked with Mr. Hayes. Give him permission to shut down the system and requested to submit a brief work plan for confirmatory post-remediation soil sampling. AD

11/03/2010: Received an e-mail from Langan saying:

Hi Ainura,

As discussed during our October 20, 2010 telephone conversation, we have prepared the attached confirmatory (post-remedy) soil sampling plan for your review and approval. Let us know if you have questions or comments.

Thank you, Jason

Langan Engineering & Environmental Services Phone: 212.479.5427 Fax: 212.479.5444

DL to eDocs the soil sampling work plan. Will review. AD

11/09/2010: Reviewed the work plan. Langan proposes to collect 4 confirmatory soil samples from five locations with historically high levels of VOCs. AD

11/10/2010: Issued and sent an approval letter to Mr. Wolpert. DL the letter to eDocs. AD

03/03/2011: Received an e-mail from Jason:

Hi Ainura,

We plan to complete the endpoint soil sample borings for 2148 Broadway on March 12, 2011. Let me know if you have any questions or comments.

Regards,

Jason

Jason J. Hayes, LEEDAP

AD

05/23/2011: Received a Spill Closure Report submitted by Langan. DL only part of pdf copy of the report to eDocs due to its huge size (260 MB). Will require resubmit e-copy of the report. Will review. AD

06/28/2011: Reviewed the report. It stated that according to soil analytical results, VOCs were non-detect in all confirmatory post-remediation soil samples with the exception of one sample EB -04 collected at 11-13 feet below grade surface, which had elevated levels of xylenes and trimethylbenzene. Based on the remedial actions conducted and the lack of potential pathways of exposure, the consultant requested closure of the spill.

Summary of the remedial actions at the site:

11 USTs were removed and disposed off-site. The entire site was excavated to 40 feet below grade and 10 to 20 feet into bedrock. 20,653 tons of petroleum-contaminates soil were removed and disposed of site. A vapor-barrier was installed along the building's subsurface walls and floor slab. The SVE system was installed along the sidewalk and operated from June to October 2010, when it was shut down due to recovered vapors reaching asymptotic levels. 233.61 pounds of VOCs were extracted by the SVE system. The potential for impacts to human health are very low considering:

- 1) installation of a vapor barrier;
- 2) concrete cover over the entire site;
- 3) no exposed soil at the site property;
- 4) depth to groundwater at the site;
- 5) groundwater in the area of New York City is not a source of drinking water.

The residual subsurface petroleum impacts are expected to degrate over time through natural attenuation. Called and spoke with Mr. hayes of langan regarding resubmission of e-copy of the report. It will be submitted shortly. AD

06/29/2011: Discussed the closure of the spill with J. Kolleeny of DEC. Based on all data provided, the remedial actions performed and the lack of potential pathways of contamination exposure, it was decided to approve closure of the spill. Spill Closure letter will be issued when revised pdf copy of the closure report will be submitted to DEC. AD

07/07/2011: Received revised pdf copy of the report. DL it to eDocs. Case closed. AD

|                                                                                  |                                             |                                              |                                      |                               |
|----------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------------|--------------------------------------|-------------------------------|
| <b>Map Identification Number 132</b>                                             | <b>STREET</b>                               |                                              | <b>Spill Number: 0608530</b>         | <b>Close Date: 10/26/2006</b> |
|  | AMSTERDAM AVE AT WEST 74T                   | MANHATTAN, NY                                |                                      | TT-Id: 520A-0098-129          |
| <b>MAP LOCATION INFORMATION</b>                                                  |                                             | <b>ADDRESS CHANGE INFORMATION</b>            |                                      |                               |
| Site location mapped by: ADDRESS MATCHING                                        |                                             | Revised street: AMSTERDAM AVE / W 74TH ST    |                                      |                               |
| Approximate distance from property: 1283 feet to the WSW                         |                                             | Revised zip code: 10023                      |                                      |                               |
| Source of Spill: COMMERCIAL/INDUSTRIAL                                           |                                             | Spiller: MARTIN SCORSESE – SHINE A LIGHT LLC | Spiller Phone: (212) 581-1548        |                               |
| Notifier Type: Affected Persons                                                  |                                             | Notifier Name:                               | Notifier Phone:                      |                               |
| Caller Name:                                                                     |                                             | Caller Agency:                               | Caller Phone:                        |                               |
| DEC Investigator: SMSANGES                                                       | Contact for more spill info: PHILLIP MURPHY |                                              | Contact Person Phone: (917) 232-1291 |                               |

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Any Type of RP Including No RP – No DEC Field Response – Corrective Action by Spill Response Not Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/25/2006 |                     | OTHER          | NO                      |                     |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIESEL           | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | AIR                  |

-----  
 Caller Remarks:

CONTACT PERSON ON SITE: JASON FRITZ # 646-483-5920 :

THERE ARE TWO TRACTOR TRAILER SIZE DIESEL GENERATORS AT THIS LOCATION IN THE STREET:

THEY HAVE BEEN THERE RUNNING SINCE MONDAY MORNING, AND THE FUMES AND SMOKE ARE AFFETING THE AIR AND DIRECTLY AFFECTING THE APARTMENT BUILDING AT THIS LOCATION: THE FUMES AND SMOKE WERE SO DRASTIC ON MONDAY 10/23/2006 THAT THE FIRE DEPT RESPONDED:

CALLS HAVE BEEN MADE TO THE PRODUCTION COMPANY AND THE MAYOR'S FILM OFFICE WITH NO RESPONSE: AND EPA AIR QUALITY COMPLAINT WAS MADE BY THE CALLER ON MONDAY, WITH REFERENCE # 1478252:

CALLER WAS ASSURED BY 311 OPERATOR THAT TESTS WOULD TAKE PLACE ON TUES. 10/24/2006 BUT NONE HAVE BEEN COMPLETED AS OF YET: THE PROBLEM IS STILL ONGOING: HEADACHES AND NAUSEA ARE A PROBLEM FOR RESIDENTS:

-----  
 DEC Investigator Remarks:

complaint forwarded to DEC Air Group

**Map Identification Number 133**



**THE OPERA OWNERS INC**

2166 BROADWAY

NEW YORK, NY

**Spill Number: 9708318**

**Close Date: 02/15/2008**

TT-Id: 520A-0098-735

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1289 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Affected Persons

Caller Name: SCOTT KONNER

DEC Investigator: rvetani

Spiller: DAVE YUDELSON - AMSTERDAM & 76TH, LLC

Notifier Name: VERRA LEONETTI

Caller Agency: KONNER, TEITELVAUM,LLP

Contact for more spill info: VERRA LEONETTI

Spiller Phone: (212) 421-2150

Notifier Phone: (212) 868-8320 ext. 3

Caller Phone: (212) 697-8500

Contact Person Phone: (212) 868-8320 ext. 3

-----  
 Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |         | Penalty Recommended |         |                      |
|------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 10/13/1997       |                     | UNKNOWN        | NO                      |         | NO                  |         |                      |
| Material Spilled |                     | Material Class | Quantity Spilled        | Units   | Quantity Recovered  | Units   | Resource(s) Affected |
| MOTOR OIL        |                     | PETROLEUM      | 1000                    | GALLONS | 0                   | GALLONS | SOIL, GROUNDWATER    |

Caller Remarks:

OIL IS LEAKING IN BUILDING FROM PARKING GARAGE NEXT DOOR. IT IS PENETRATED THROUGH A WALL & IS ON A PAD UNDERNEITH THE ELEVATOR. LAB RESULTS CONFIRM IT IS MOTOR OIL.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was M TIBBE see also 9009666 & 0008420.

10/24/05–Vought–Spill transferred from Tibbe to Vought. Contract Payment Package (National)–Weekly well monitoring. (6/1/05–7/31/05).

03/07/06–Thomas– Contract Payment Package– National Env. Mgmt– Fluid monitoring and recording. Preparation of hydrographs and tables for report.(08/01/05–09/30/05).

03/15/06–Thomas– Contract Payment Package–(National)– fluid level monitoring and recording, groundwater sampling(10/01/05–11/30/05).

04/28/06–Thomas– Contract Payment Package– (Severn)– lab analysis of MW samples (02/01/06–02/28/06).

09/14/06–Vought–Contract Payment Package–(National)– VEFR and well monitoring and Site Status Report (06/01/06–07/31/06).

11/16/06–Vought–Contract Payment Package (STL)–Groundwater sample analysis (08/30/06–09/14/06).

11/29/06–Vought–Contract Payment Package (National)–Biweekly VEFR, well monitoring and liquid disposal (08/01/06–09/30/06).

1/11/07–Vought–Spill transferred from DEC Vought to DEC Ketani as per DEC Austin due to recent property construction, destruction of DEC monitoring wells and need for review.

2/15/07 – Raphael Ketani. The initial spill was oil from a neighboring garage that passed through an adjoining wall and appeared on the slab below an elevator in the building next door.

The PBS case is #2–158518. There is a 10,000 gals. tank in service with #6 oil. The owners are listed as: The Opera Owners, Inc., 2166 Broadway, NY, 10024. Jay Tacooram is the contact at (212) 769–4151. Mail goes to: Lawrence Properties, 855 Avenue of the

Americas, NY, 10001. The contact there is Jack Terebelo at (212) 868-8320.

I reviewed the case file and found the following documents:

2/24/92: this letter is attached to a letter dated 10/3/97 from Materials Technologies. It is from Walters & Samuels and states that the garage plans to close the 5 550 gal. gasoline tanks. The reason for closure is that it isn't profitable to sell gasoline. The Sylvan Corp. (owners of the garage) believe the tanks are in good condition.

2/27/97: NY Testing Laboratories, Inc. oil sample analysis results. Attached is a 7/7/97 letter from Goldco Consulting stating they couldn't find any record of that there was ever any fuel oil storage at 207 W. 76 Street. Also, attached is a 6/9/97 cover letter with report from Phoenix Environmental to Alvin Petroleum Systems regarding the oil seep into their building's basement and an oil fingerprint analysis of the oil.

3/10/97: letter from Konner, Teitelbaum LLP (counsel to Opera Owners) to Champion Parking regarding oil seeping into the Opera Owners building, and determination that the oil originates from Budget Rent A Car.

7/7/97: letter from Goldco Consulting to Walter & Samuels at 419 Park Avenue stating that they did a Dept. of Buildings records search and could not find any evidence that the garage ever had fuel or oil storage tanks on site.

12/19/97: letter from PSI states that the oil is #6, but that it can not be determined where the oil is coming from due to the numerous sites that use oil in the area. The letter stated that the garage was not the source of the oil.

5/20/98: letter from Pedneault Associates, Inc. to Chris Tomasello of DEC stating that the sample of oil from MW-3 was analyzed and determined to be a mix of diesel fuel and motor oil.

5/20/98: letter from Pedneault Associates, Inc. to Chris Tomasello of DEC stating that the samples of oil from MW-1, MW-2 and MW-3 were analyzed and determined to be a heavy weight petroleum product - #5 or #6 oil.

5/25/98: letter from Pedneault Associates, Inc. to Chris Tomasello of DEC stating that the drill cuttings sample from MW-6 had 98 ppb bromomethane, 21 ppb naphthalene, and 245 ppb MTBE. The drill cuttings from MW-7 had 205 ppb MTBE.

12/29/98: letter from Pedneault Associates, Inc. to Chris Tomasello of DEC stating that the oil sample from MW-4 contained diesel range organics.

2001: report from Miller Environmental Group summing up the situation at the site and the fact that it could not be determined where the #6 oil had come from. They recommend injecting Biosolve to make the #6 oil more mobile and using absorbent socks.

7-9/2002: report from Miller Environmental Group stating that they are using absorbent socks to collect the oil as needed and that they tried to seal the elevator shaft wall in the building. However, the oil continued to seep through. They again recommended using Biosolve to reduce the viscosity of the oil and then vacuum collect it.

6/7/05: report from Miller Environmental Group for the period 9/02 to 2/05 stating that they recommend continuing the vacuum recovery of the oil/water mixture and enclosing hydrographs and groundwater flow maps. Groundwater is highest at MW-7 and they state that it flows southeast.

9/2005 (9/14/05): report from National Environmental Management status report for the period 3/05 to 7/05. It states that MW-1 to MW-4 are impacted by free product, with MW-3 being the most impacted. Hydrographs are enclosed that show the level of product.

2/23/06: analytical report from Severn Trent Laboratories for MW-4, MW-5, MW-6 and MW-7. All of the analytical results for VOCs came up non-detect.

National Environmental Management is the contractor for the long term. Their number is (631) 580-3191 and the contact is Greg Menegio at Enviroscience Consultants. I contacted Mr. Menegio and asked him whether he was familiar with the case. He said he wasn't, but he asked that I give him some time to do so and he will get back in touch next week. I told him that would be alright.

2/26/07-Vought-Contract Payment Package (National)-Monthly VEFR and well monitoring, project status report (10/1/06-11/30/06).

02/28/07-Vought-Contract Payment Package (STL)-Groundwater sample analysis (11/16/06-12/18/06).

3/8/07 - Raphael Ketani. The scheduled site visit with Mr. Menegio and his assistant took place today. His assistant showed me the wells that were installed in the sidewalk. She said that the only well with significant oil was MW-3. She said it was #6 oil. Mr. Menegio told me that the building was scheduled for demolition in the near future. I told him that maybe with the demolition and exposed subsoil, we will be able to see what is generating the oil. Otherwise, there was nothing to see at the site.

3/9/07 - Raphael Ketani. I sent a letter to Mr. Menegio stating that they should continue to do oil collection from MW-3 and once the building is demolished, then a soil investigation should take place.

3/14/07 - Raphael Ketani. I received the analytical results for groundwater samples taken from MW-6 and MW-7 on 2/14/07. MW-6 was completely non-detect. MW-7 had estimated hits for isopropylbenzene of 1.7 ppb and for N-propylbenzene of 1.2 ppb.

5/2/07 - Raphael Ketani. I received the Contractor Pay Packages for work on site that was done by National Environmental Management Associates Corp. The work period is from 12/1/06 to 1/31/07. Invoice number is #285. The work consisted of VEFR and monitoring the wells, use of low value equipment, VEFR trucks, sonic interface probe, supplies of gloves and hexane, and travel to site. The packages were found to be acceptable and were sent to Procurement.

I received the Contractor Pay Packages for work on site that was done by National Environmental Management Associates Corp. The work period is from 2/1/07 to 3/31/07. Invoice number is #323. The work consisted of VEFR and monitoring the wells, use of low value equipment, VEFR trucks, sonic interface probe, sample wells MW-6 and MW-7, supplies of gloves and hexane, travel to site, review files and consultation with DEC staff. The packages were found to be acceptable and were sent to Procurement.

5/3/07 - Raphael Ketani. I received the Contractor Pay Packages for work on site that was done by SEVERN TRENT Laboratories. The work period is from 2/21/07 to 3/6/07. Invoice number is #22021726. The work consisted of processing groundwater samples from MW-6 and MW-7. The packages were found to be acceptable and were sent to Procurement.

5/10/07 - Raphael Ketani. I received the Contractor Pay Packages for work on site that was done by SEVERN TRENT Laboratories. The work period is from 11/1/05 to 11/30/05. Invoice number is #42052661. The work consisted of processing groundwater samples from MW-5 to MW-7. The packages were found to be acceptable and were sent to Procurement. However, this pay package is out of sequence (submitted very late) with the others that have been processed. It was received by myself on the date at the upper left.

6/11/07 – Raphael Ketani. Mr. Menegio (631) 580–3191, ext 22(office)/(631) 905–4869(cell) e–mailed me today to state that the building next to the site had been torn down. He asked whether DEC wanted to investigate the site. I told him Yes, and to get the owners' name, phone number, and address.

6/21/07 – Raphael Ketani. I sent a Request for Entry letter to Amsterdam & 76TH, LLC, 60 Columbus Circle, NY, 10023–5802 for access to their property at 207–211 W. 76 Street.

6/29/07 – Raphael Ketani. Dave Yudelson, atty. (917) 295–6449 for Amsterdam & 76th LLC, called to say that oil is flowing out of the basement wall of the Opera Owners, Inc. building that is adjacent to his client's property. He asked that we meet at the site at 76th Street and Amersterdam Ave. at 2PM so that he can show me the problem. I told him that would be fine. I contacted Mr. Menegio and asked him to be there, also. He said he will.

Dave Yudelson (212) 421–2150/cell (917) 295–6449 is the attorney for the owners. He works for Sive Paget & Riesel, P.C., 460 Park Avenue, NY, 10022–1906.

Greg Menegio from National Environmental/Enviroscience and I met Mr. Yudelson at the site. The construction foreman and his assistant let us enter the site where the front of the garage use to be on West 76th Street. We saw that a very large area had been cleared of buildings. The area fronted not only on West 76th Street, but also on Amsterdam Avenue and West 77th Street. Two giant rock chiseling machines were working to break up the bedrock in the site. The bedrock was gneissic rock with some mica schist of the Hartland Formation. We were standing on a ledge about 25 feet above the existing excavation floor. Mr. Yudelson said that the excavation will be down to 40 feet. This ledge was adjacent to the corner of the Opera Owners building where Mr. Yudelson said oil had been pouring out of the corner of the building. He said they had collected a lot of the escaping oil. Mr. Yudelson commented that the blue tarp on the Opera Owners building's wall was there to cover some of the seeping. We could see a little oil leaking out of the wall towards the bottom and running down to the excavation floor. Some of the soil on the floor was contaminated with the oil. An excavator was used to expose more of the wall and more of the leaking oil. Eleven pictures were taken. Mr. Menegio didn't have any collecting equipment with him and there was no safe way to gain access to the floor of the excavation and see the leaks up close. So everyone agreed to revisit the site for sampling and a closer look on 7/3/07.

7/3/07 – Raphael Ketani. The field sampling event took place today. I was met on site by the following:

Dave Yudelson, attorney for the owners of the neighboring property Craig Puerta, ELM, engineer, consultant for Mr. Yudelson Scott, ELM, Mr. Puerta's assistant Greg Menegio, Enviroscience/National Environmental, PIN consultant for DEC Lori Mead, Enviroscience/National Environmental, Mr. Menegio's assistant

Mr. Yudelson pointed out dark stains on the below grade part of the wall of the Opera Owners building. He said he believed that the oil is from Opera Owners as there are only individual seepage stains on the wall and because the oil is flowing from the wall. I told him I wasn't so sure about that. I asked him about the large oil tank that was under the sidewalk in front of the former garage. He said it was removed and sent to a scrap yard. I asked him whether any oil was found between the tank and the garage. He said No. He said that the tank was removed because a strong foundation was needed at this location for the construction crane that will be placed here. I asked Mr. Menegio where some of his wells were. He said that MW–4 was in the basement of the garage in the corner where soil sampling will take place. He added that MW–3 is under the pile of lumber that is sitting where the crane will go. These two wells could not be sampled.

Oil was running out of the wall and the soil under the sidewalk at the southwest corner of the former garage location. Vapor levels were 44.1 ppm at the base of the wall just above the soil and 970 ppb where the oil was running out of the sidewalk soil. Mr. Menegio took split soil samples for himself (DEC) and Mr. Puerta. Mr. Menegio was using protective gloves and took samples S-2 and S-3 from about 5 feet above the pool of oily water that was collecting below in the corner. The samples were put into sterile, clean small glass jars and sealed immediately. Next, Lori and Mr. Menegio sampled the oil from MW-1 and MW-2. The oil was black, thick and about 8 inches in each well, despite the garage being torn down.

Next, we met Jay Tacooram, the super. of Opera Owners. He took us to the basement and the subbasement. We looked at the tank. There was a placard that stated the tank was installed in 2001. Jay said that he came on-board before the tank and fill pipe were replaced. He said that they were replaced in 2001 as part of a general refurbishing of the building shortly after it went co-op. He said that the oil seeping into his building is much improved since the garage was torn down. Lori took pictures of several oil seeps on the east wall of the tank room. There were several oil streaks on the east subbasement wall just outside the elevator. The streaks start at the level of the subbasement ceiling/basement floor. Jay showed us the oil streaks in the elevator shaft. These also started at the ceiling/floor level. All of the streaks appear to be at the same level as where the oil seeps on the outside brick wall start. Jay took us to the basement level. He showed us that this level is where the red brick sits on the lower larger blocks. Jay added that this is where the blue tarp covering other outside oil seeps is situated (these seeps were running at the time of the garage removal, but have since stopped – unlike the other lower, outside oil seeps). I didn't see any inside oil seeps at the basement level. With this, our meeting ended.

I told Mr. Menegio to run the soil samples for 8260 and 8270, and to run the oil samples for type of oil and age. He said he will do this. I also told him that the oil seeps in the Opera Owners building will have to be cleaned up and the wall repainted. Lori said this will be done. I asked Mr. Menegio when he will send the soil samples. He said later today. I asked him whether he had ice packs to preserve the samples. He said that he will get sufficient ice to pack the samples.

7/6/07 – Raphael Ketani. Craig Puerta of ELM e-mailed me that he sent his split samples to the labs.

7/9/07 – Raphael Ketani. Ms. Mead called me and said that she is arranging for a cleaning service to clean the walls at the Opera Owners building.

Later, she e-mailed that the cleaning will take place on July 12, 2007.

7/12/07 – Raphael Ketani. I received analytical results for groundwater samples that were taken from MW-6 and MW-7 on 6/22/07. The STL job number is #220-1965-1. The samples were run for method 8260 only. With the exception of isopropylbenzene at 1.6 ppb in the MW-6 sample, all of the results were at or below the MDL (essentially non-detect).

8/2/07 – Raphael Ketani. I received the Contractor Pay Packages for work on site that was done by MILRO Associates Inc. The work period is from 7/12/07 to 7/12/07. Invoice number is #28244. The work consisted of cleaning the basement and elevator shaft walls inside of Opera Owners, as per the instructions I gave Mr. Menegio on 7/3/07. The packages were found to be acceptable and were sent to Procurement.

8/3/07 – Raphael Ketani. I received the Contractor Pay Packages for analysis of groundwater samples by Severn Trent Laboratories. The work period is from 6/26/07 to 7/10/07. Invoice number is #22022752. The work consisted of analyzing 2 groundwater samples from MW-6 and MW-7 that were submitted by Greg Menegio of Environscience/National Environmental. The packages were found to be acceptable and were sent to Procurement.

8/8/07 – Raphael Ketani. I received analytical results for samples that were taken from S–1, S–2, S–3, and MW–1 on 7/3/07. The STL job number is #220–2060–1. The three soil samples were taken from the pit on the adjacent property and under the sidewalk, and the groundwater sample was of the oil floating in Well MW–1.

S–1 (at the base of the pit and Opera Owners wall) had only 2 low hits of n–propylbenzene and sec–butylbenzene with 8 very low SVOC hits.

S–2 (under the sidewalk) had 29000ppb naphthalene, 3900ppb n–butylbenzene, 1500ppb sec–butylbenzene, 3100ppb n–propylbenzene, 1100ppb isopropylbenzene, 1000ppb benzene, and from 1100ppb to 20,000ppb of the SVOCs naphthalene, acenaphthene, flourene, phenanthrene, anthracene, pyrene, benzo(a)anthracene and chrysene.

S–3 (also under the sidewalk) had 9 VOC hits from 320ppb to 24000ppb and 9 SVOC hits from 760ppb to 32,000ppb – most of which are non–benzo series analytes. These results are similar to those of S–2.

MW–1 (oil) is listed as one sample that was received and processed, but there are no analytical results on paper. The Chain of Custody form in the back shows that an oil sample was also taken from MW–2. However, this sample is not even listed as having been received. I called up Mr. Menegio (631) 580–3191 and asked him what happened to samples MW–1 and MW–2. He said the lab told him there wasn't enough product to do the type of oil analysis and the age analysis for each sample. However, when he went back to the site to collect more oil, he found that wells MW–1 and MW–2 had been destroyed. Mr. Menegio said he will talk to the lab and see if they managed to analyze the oil anyway.

I remembered Mr. Yudelson telling me that he will take out all of the soil under the sidewalk and the sidewalk itself. However, I thought he was not going to do this so soon as to interfere with the taking of samples from the wells in the near future.

8/20/07 – Raphael Ketani. I looked up the PBS for the garage that was next door to the site. Their PBS is #2–604789. It lists five 550 gallon tanks that had gasoline and were closed and removed. However, the large fuel oil tank was never registered.

8/21/07 – Raphael Ketani. I spoke to Mark Tibbe, Geological Technician III of Region 2 DER, Unit B, regarding the site and what he saw when he first inspected the Opera Owners' tank room in 1997. He said that the tank room is a giant vault which extends upward to just under the sidewalk. He said it's all open air and that the fill pipe is suspended in the air from the steel beams just below the sidewalk to the tank. He said the fill pipe connects to the tank directly and that he never saw any signs of leakage on the pipe or from the pipe. Mr. Tibbe added that the fill box is above the steel beams and is imbedded in the sidewalk. He said that he never saw any signs of leakage from the fill box. He stated that he never saw signs of leakage from the fuel tank and that the oil seeping through the tank room walls started high above the tank.

8/22/07 – Raphael Ketani. I finished reviewing the caserecord correspondence files for the site.

As a result of my review, I am submitting a Case Initiation Form.

8/24/07 – Raphael Ketani. I received the Contractor Pay Packages for work on site that was done by National Environmental Management Associates Corp. The work period is from 4/1/07 to 5/31/07. Invoice number is #390. The work consisted of VEFR and monitoring wells MW–1, MW–2, and MW–3, diposal of water and oil, use of low value equipment, VEFR trucks, maintenance of the VEFR trucks, sonic interface probe, supplies of gloves and hexane, travel to site, and tolls. The packages were found to be acceptable

and were sent to Procurement.

9/17/07 – Raphael Ketani. A Contractor's Payment Application package for Severn Trent Laboratories arrived in my absence. The work period is from 7/5/07 to 8/3/07. The invoice number is #22023027. The work consisted of processing soil samples S-1, S-2, and S-3, and processing groundwater samples from MW-1 and MW-2. The packages were found to be acceptable and were sent to Procurement.

10/1/07 – Raphael Ketani. I called Bonnie Ridgely (518) 474-6124 of the Albany AG's office and asked her whether her office had a case for the site. She asked whether it was a petroleum spill. I said it was. She said that her office handles the spills and they have not seen anything for Opera Owners.

10/4/07 – Raphael Ketani. Today I received an e-mail from Mr. Menegio with the soil analytical results and the oil typing and aging. The oil type is #6, but the lab was not able to determine the age of the product. Soil sample S-1 was below TAGM RSCOs, but samples S-2 and S-3 had several exceedences each. Both S-2 and S-3 (from below the sidewalk) had high exceedences for benzene, naphthalene, benzo(a)pyrene, and chrysene.

10/5/07 – Raphael Ketani. I spoke to Jay Tacomam, the super. for Opera Owners. He said he has had no problems with oil seeping through the walls since the garage and the soil under it were taken away. He said the elevator shaft and the sub-basement walls have remained clean.

10/20/07 – Raphael Ketani. I asked Mr. Menegio to have Ms. Mead swing by Opera Owners the next time she is in the area, and to look at the condition of the area where the wells are, or were, and to let me know what she sees. He said he will do this.

12/14/07 – Raphael Ketani. Mr. Menegio had contacted me on 8/8/07 regarding the status of the monitoring wells. He informed me that wells MW-1 and MW-2, which had recently been sampled, had been destroyed.

I am submitting the Final ISR for this PIN case to Randall Austin, Chief of the Spills Unit in Region 2, for his signature.

12/18/07 – Raphael Ketani. The FINAL ISR was signed by myself, Mr. Austin, and Lou Oliva, the Regional Attorney. It was then sent to Dennis Farrar of Albany Remediation. A penalty matrix was attached.

I sent a letter to Dave Yudelson asking him for the manifests for the contaminated soil and water removal.

1/8/08 – Raphael Ketani. Mr. Yudelson sent me an e-mail that he had the manifests for the soil that was removed from the location of the former garage.

1/9/08 – Raphael Ketani. A Violation Detail Sheet was sent to Dennis Farrar of Albany Remediation.

1/14/08 – Raphael Ketani. I received the Contractor Pay Packages for work on site that was done by National Environmental Management Associates Corp. The work period is from 6/1/07 to 7/31/07. Invoice number is #475. The work consisted of researching project history as directed by DEC, quarterly groundwater sampling of MW-6 and 7, site visit with DEC and neighboring property's attorney, phone conference with DEC, site visit with DEC and neighboring property's attorney with inspection of elevator shaft at site and collection of soil and water samples, gauge wells, final site visit to assess conditions of wells. The packages were found to be acceptable and were sent to Procurement.

1/29/08 – Raphael Ketani. I received the Contractor Pay Packages for work performed by National Environmental Management Associates Corp. The work period is from 8/1/07 to 9/30/07. Invoice number is #556. The work consisted of preparation for writing and writing the bi-annual site status monitoring report. The packages were found to be acceptable and were sent to Procurement.

2/7/08 – Raphael Ketani. I received the Contractor Pay Packages for work performed by National Environmental Management Associates Corp. The work period is from 10/1/07 to 1/31/08. Invoice number is #614. The work consisted of reviewing the well fluid level results and preparing summary tables, a site inspection for well damage and the taking of photographs, and conference calls between National Environmental and NYSDEC. The packages were found to be acceptable and were sent to Procurement.

2/15/08 – Raphael Ketani. Mr. Yudelson had told me in the recent past (about 3 months ago) that the construction crew had removed the large fuel tank under the sidewalk, and had removed the soil surrounding the groundwater monitoring wells that had been installed. The destruction of the monitoring wells had been confirmed by the consultants from National Environmental. Documentation of the oil contamination has been produced (via measurements of free product in the wells, pictures of the oil seeping through the basement walls at Opera Owners, and soil samples that were taken in 2007). Opera Owners has remained clean since the demolition of the garage. In my best determination, there is nothing left to sample or investigate at the site or the former garage site and the spill has been remediated. The Division of Legal Affairs in Albany and the Attorney General's office will pursue the legal settlement.

Based upon the above reasons, I am closing the spill case.

2/25/08 – Raphael Ketani. Mr. Yudelson e-mailed me that he is sending the manifests for the soil that was removed at the former garage site.

2/26/08 – Raphael Ketani. I received the thick package of soil manifests from Mr. Yudelson. I gave them to Paul, the Spills mail/E-docing clerk, to be scanned into the database.

8/13/08 – Raphael Ketani. Sue Zeun from the Attorney General's office called to request a copy of all of the E-docs on disc. She said that the case is going to court on September 9, 2008.

Sue contacted Robert Leung of the Unit C of Region 2 DER and he transferred copies of all of the E-docs to disc and mailed the disc to her today.

8/22/08 – Raphael Ketani. I researched some background information that may be helpful regarding the case. The garage address is 207-211 W. 76. There were 5 USTs. All had gas and all were closed in place on 2/1/92. From the case notes, the tanks were removed about 5/2007, when the building was demolished. The PBS is #2-604789.

According to Property Shark, Opera Owners primary address is 2162 Broadway. The building spans the addresses from 2162 to 2168. The block and lot are 1168 and 22. An alternate address is 213 W. 76 Street.

3/20/09 – Raphael Ketani. Mr. Yudelson called inquiring about the status of the spill case. I told him that the case had been closed some time ago in 2008. I told him the PIN was still open as the OAG was still pursuing the case. He said he knew as the owners of the former garage were being sued.

7/29/15 – Raphael Ketani. Dan Schlesinger (518) 776–2206 of the Albany AOG is the new attorney for the PIN case.

**Map Identification Number 134**      **OPERA APARTMENTS**      **Spill Number: 0008420**      **Close Date: 04/11/2003**  
 2166 BROADWAY      MANHATTAN, NY      TT-Id: 520A–0098–711

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1289 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                |                                                     |                                      |
|--------------------------------|-----------------------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN       | Spiller: UNKNOWN – Unknown                          | Spiller Phone:                       |
| Notifier Type: Local Agency    | Notifier Name: NYC FIRE DEPT                        | Notifier Phone: (212) 628–2900       |
| Caller Name: CHERELLE MAYFIELD | Caller Agency: DEP                                  | Caller Phone: (718) 595–6777         |
| DEC Investigator: MCTIBBE      | Contact for more spill info: DISP 423 NYC FIRE DEPT | Contact Person Phone: (212) 628–2900 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/18/2000 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

INFO RELATED BY NYC FD TO DEP–NO FURTHER INFO AT THIS TIME.

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIBBE Originally assigned to Sangesland – Re-assigned to Tibbe on 2/19/2002 due to prior work at this site

REFER TO 9708318 & 9009666.

**Map Identification Number 135**

**VAULT #V3716**  
27 WEST 72ND ST

MANHATTAN, NY

**Spill Number: 9811576**

**Close Date: 10/27/2004**  
TT-Id: 520A-0092-557

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 1299 feet to the SSW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
Notifier Type: Affected Persons  
Caller Name: FRANK MASSERIA  
DEC Investigator: CAENGELH

Spiller: UNKNOWN  
Notifier Name: MR MCGUGH  
Caller Agency: CON EDISON  
Contact for more spill info: FRANK MASSERIA

Spiller Phone:  
Notifier Phone:  
Caller Phone: (212) 580-6763  
Contact Person Phone: (212) 580-6763

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/15/1998 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 15.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

CON ED #121956 – 15 GALLONS FOUND IN TRANSFORMER VAULT – SPILL CONTAINED AND WILL BE CLEANED UP BY CON ED

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was ENGELHARDT

12/15/98: ERT Shah – occurred at 9 AM. There is sump pit but pump was not operating at time of arrival. No sewers/waterways. Has been sampled. Flush truck on location, going to do pressure test.

On location at 1245 hrs – there is sediment in vault. Sump filled with oil <5 gallons. Transformer oil level at min operation leve ~30-50 gallons missing. Max volume 392 gallons. Found bottom leak. Upon inspecting inside of plumbing from sump found oily residue inside pipe so probably got to sewer. Historic PBC concentration 14 ppm. Treating cleanup as 50-499 until lab results come back. Going to do initial cleanup – drain, remove, reclean, replace. (CAE)

~~~~~ E2MIS 121956

12/15/98 10:11 O.S. FLUSH FRANK SANTARPIA REPORTS SPILL OF APPROX 15 GALLONS OF OIL WAS FOUND IN V3716 LOCATED AT 27 W 72 ST.

SPILL WAS FOUND BY KEN SELL(#53414) FROM THE FLUSH DEPT AT 09:00 HRS ON 12/15/98 AND REPORTED TO MCHUGH IN THE CONTROL CENTER AT 10:11 HRS ON 12/15/98. SPILL HAS ENTERED THE SUMP PIT OF THE VAULT BUT THE PUMP WAS NOT OPERATING AT TIME OF ARRIVAL. THE PUMP WAS UNPLUGGED UPON DISCOVERY. THE SPILL IS CONTAINED AT THIS TIME. SANTARPIA REPORTS THERE WAS NO RELEASE TO ANY SEWERS OR WATERWAYS. HE REQUESTS AND I&A CREW TO LOCATION TO DISMANTLE SUMP PUMP PIPING TO VERIFY THAT NO OIL WAS PUMPED. A SAMPLE WAS TAKEN AND A SPILL TAG #21894 WAS INSTALLED. THE FLUSH CREW WAS ON LOCATION TO CLEAN THE STRUCTURE. THE I&A CREW WILL ALSO PRESURE TEST TRANSFORMER TO DETERMINE IF IT IS LEAKING.

12/15/98 11:02 R.MOCKLER(OS I&A) REPORTS BOTTOM LEAK FROM TRANSFORMER IN V3716 17M83 LOCATED 27 W 72 ST. REQUESTS FDR OFF OOE CAT ONE. FDR CUT OUT AT 11:07 ON 12/15/98.

12/15/98 13:10 MOCKLER REPORTS DISMANTLED SUMP PUMP PIPING AND HAVE SIGNS OF OIL IN PIPING. IT IS ESTIMATED THAT 50 GALLON SPILLED FROM TRANSFORMER AND APPROX 40 GALLONS ENTERED THE SEWER. HAVE DEC CHRIS ENGELHARDT ON LOCATION.

12/15/98 1705 HRS RESULTS OF LAB ANALYSIS 98-13949: PCB: 9 PPM; AROCLOR 1260

12/16/98 12:15 PM S. Baldwin of NYC DEP on location. He was advised of cleanup activity. 13:30 PM Partial cleanup of structure begins treating all debris as >50 PPM. 15:00 PM Partial cleanup complete Two solid drums of waste picked up by Astoria transportation. 17:55 PM Crew drains transformer and installs oil boom in front of unit. Final cleanup pending removal of unit. Scaffold over vault.

On 6/16/99 at 18:30 I&A removed 3600 gallons of water and oil from vault with Astoria tanker.

On 6/17/99 I&A completed cleanup of structure. Removed two solid waste drums of debris, returned to E 110 St. yard for disposal. All other debris removed by Vactor truck. Degreasing agent Bio-Gen 760 used. Spill tag #21894 removed job complete.

Update: A new transformer was installed 6/25/1999.

Map Identification Number 136



MANHOLE #59227

215 W.76TH ST

MANHATTAN, NY

Spill Number: 9910860

Close Date: 02/06/2004

TT-Id: 520A-0098-740

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 1299 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
Notifier Type: Affected Persons
Caller Name: STEVEN CRIBBIN
DEC Investigator: JHOCONNE

Spiller: UNKNOWN - Unknown
Notifier Name: MR HEFFERAN
Caller Agency: CON ED
Contact for more spill info:

Spiller Phone:
Notifier Phone: (212) 338-4026
Caller Phone: (212) 580-8576
Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 12/13/1999 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM | 5.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

5 gal unk oil mixed with 10 gal of mud – samples have been taken and clean up pending results – con ed #129286

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL e2mis no. 129286:

5 gallons of an unknown oil mixed with approximately 10 gallons of mud in M59227. sewer connection verified as per conduit plate.

LAB SEQUENCE # 99-12793 PCB <1 PPM

DATE AND TIME THE CLEANUP COMPLETED : 1/03/00 , 14:00. CLEANUP PROCEDURE : (NO WATER) MUD REMOVED BY VAC-TRUCK, WAS DOUBLE WASHED WITH BIO-GENESIS SOLUTION,MANHOLE WAS RINSED BY VAC-TRUCK.

Map Identification Number 137 **CENTRLA PARK WEST&85TH ST**
 CENTRAL PARK WEST&85TH ST

MANHATTAN, NY

Spill Number: 9000590

Close Date: 04/18/1990
 TT-Id: 520A-0097-031

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 1309 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: CENTRAL PARK WEST/W 85TH ST
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
 Notifier Type: Police Department
 Caller Name: OFFICER KOCH
 DEC Investigator: WILSON

Spiller: UNKNOWN
 Notifier Name:
 Caller Agency: NYCPD
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone: (212) 374-5580
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 04/18/1990 | 04/18/1990 | UNKNOWN | UNKNOWN | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN MATERIAL | OTHER | -1.00 | UNKNOWN | 0.00 | UNKNOWN | SOIL |

Caller Remarks:

WATERMAIN BREAK, WATER IN STREET, SHUT OFF WATER, WILL TEST WATER,
NYCDEP & NYCFD NOTIFIED.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 138 **COMMERICAL PROPERTY** **Spill Number: 1104766** **Close Date: 07/27/2011**
 40 WEST 86TH ST MANHATTAN, NY TT-Id: 520A-0265-916

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1318 feet to the NNE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: FDNY 759 – COMMERICAL PROPERTY Spiller Phone:
 Notifier Type: Fire Department Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: Caller Phone:
 DEC Investigator: HRPATEL Contact for more spill info: FDNY 759 Contact Person Phone: (346)250-6134

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 07/26/2011 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | PETROLEUM | 15.00 | GALLONS | 0.00 | GALLONS | |

Caller Remarks:

Believes it spilled onto cars & street, but dispatcher not really sure.

DEC Investigator Remarks:

duplicate spill. refer to spill #: 1104762.

Map Identification Number 139 **28-30 W. 86TH ST.** **Spill Number: 9214506** **Close Date: 03/31/1993**
 28-30 W. 86TH ST. MANHATTAN, NY TT-Id: 520A-0098-768

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1326 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|---------------------------------|----------------------------------|------------------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Affected Persons | Notifier Name: | Notifier Phone: |
| Caller Name: JERRY LITWIN | Caller Agency: A.D.L. MGT. CORP. | Caller Phone: (212) 866-5958 |
| DEC Investigator: SULLIVAN | Contact for more spill info: | Contact Person Phone: |

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/31/1993 | 03/31/1993 | UNKNOWN | UNKNOWN | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | -1.00 | UNKNOWN | 0.00 | UNKNOWN | AIR |

Caller Remarks:

MAY BE FROM ADJACENT BUILDING. FUMES IN BASEMENT OFFICES. BUILDING ITSELF USES NATURAL GAS AS FUEL. ONGOING 1 MONTH. COULDN'T SMELL NOTHING - NO OIL IN BLDG -

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

10/10/95: This is additional information about material spilled from the translation of the old spill file: ODOR.

Map Identification Number 140

AVIS RENT A CAR
219 W. 76TH STREET

MANHATTAN, NY

Spill Number: 9714319

Close Date: 11/03/2005
TT-Id: 520A-0095-763

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (4)
Approximate distance from property: 1340 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
Notifier Type: Responsible Party
Caller Name: CELESTE RUFER
DEC Investigator: TXSMITH

Spiller: UNK
Notifier Name: CELESTE RUFER
Caller Agency: AVIS RENT A CAR
Contact for more spill info: ROSE PELINO COLA

Spiller Phone:
Notifier Phone:
Caller Phone: (516) 222-6738
Contact Person Phone: (516) 222-4735

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.
Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 03/25/1998 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| GASOLINE | PETROLEUM | 0 | GALLONS | 0 | GALLONS | AIR |

Caller Remarks:

don marr contracting digging to repair a sewer line in front of above address and stated an odor of gasoline was coming from the soil.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was ROMMEL 03/29/04

Transferred from Hale to Rommel.

11/3/05 TAS Can not find additional information, no new information present, and contacts phone numbers are no longer in service. Spill closed.

Map Identification Number 141 **121 WEST 72ND STREET**
 121 W 72ND ST

MANHATTAN, NY

Spill Number: 9906352

Close Date: 10/17/2006
 TT-Id: 520A-0097-823

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1341 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Affected Persons
 Caller Name: NORMAN SILVER
 DEC Investigator: rvketani

Spiller: WALTER B COOKE FUNERAL
 Notifier Name:
 Caller Agency: WALTER & SAMUELS
 Contact for more spill info: CALLER

Spiller Phone:
 Notifier Phone:
 Caller Phone: (212) 696-7134
 Contact Person Phone: (212) 696-7134

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/27/1999 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

caller believe oil from funeral home tank is leaking and going into his building

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was M TIBBE

Transferred to T Knizek – 6/21/06

9/7/06 – Austin – Assigned from Albany to Region 2 staff (Ketani) for review and closure – end

10/6/06 – Raphael Ketani. The caller stated that he believed oil from a funeral home tank was going into his building. The contact is Norman Silver of Walter & Samuels (management company), (212) 696-7134.

I called up Mr. Silver and he said that, to the best of his memory, 500 gals. were released. He said that the rusted bottom of the tank dropped out. The repair/cleanup people came, the area was cleaned, the tank replaced, and all of the paperwork was submitted to DEC. He said the case was closed. He said that the paperwork is now with the successor management company, Cooper Square Realty (212) 634-8940. He said the contact person is Susan Turner. I tried calling Ms. Turner, but could only leave a

message. However, her phone system stated that Gaitri Patel was her assistant and that she could be contacted. I called Ms. Patel (212) 634-8928 and discussed the need for paperwork to close the case. She said she and Ms. Turner will try to get me what I need.

10/11/06 – Raphael Ketani. Ms. Turner called me back. She said she looked for records regarding the cleanup of the oil spill at the site among the records that Mr. Silver forwarded to her, but found nothing. She asked me what I had. I told her I didn't have a paper file. She asked why I was inquiring about this old spill at this time. I explained to her that this was a case transferred down from our Albany office for investigation and closure. I told her that Mr. Silver and her were my only leads. I asked her whether there were any odors in the basement where the spill occurred and whether there was any indication that a spill happened. She said that there are no odors and the building's basement is absolutely clean. Ms. Turner said that they clean things quickly at this building. She said she will look for the records again, but couldn't promise me anything. I told her I appreciated the efforts she was making.

10/16/06 – Raphael Ketani. I tried calling Ms. Turner, but could only leave a voice mail.

10/17/06 – Raphael Ketani. I made an unannounced site visit today. I met Mr. Fernando Gomez, the super. He showed me the boiler room and the tank room. The east wall of the boiler room had numerous stains on it. There were 2 holes about 5 feet above the floor and numerous small holes with long stains at various heights above the floor. There appeared to be a brown spongy substance in the narrow water drainage trench that runs along the base of the wall. However, there were no oil odors. The stains, Mr. Gomez said, were from when sealants were pumped through the wall in order to stop oil from seeping in from the neighboring building, 117 W. 72 Street. According to spill case #9712410, a fill line broke under the sidewalk and oil flowed through the soil and exited through the wall. The spill was contained and the case closed. However, the stains persist.

I inspected the tank and the lines and took several pictures. The tank and lines looked new. I asked Mr. Gomez when the tank had been replaced. He said the bottom of the tank dropped out on 6/14/94 and the tank was replaced on 12/8/94. (This does not match the case spill dates of 8/27/99 for the same type of incident.)

However, based upon the cleanliness of the boiler and the tank rooms, the lack of oil odors, the apparent newness of the tank and lines, and the lack of paperwork and the lack of knowledge of who cleaned up the spill, according to Ms. Turner, I am closing the spill case.

Map Identification Number 142**MANHOLE 29419**

CENTRAL PK WEST

MANHATTAN, NY

Spill Number: 0006070**Close Date: 12/14/2001**

TT-Id: 520A-0095-234

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 1356 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: W 73RD ST / CENTRAL PARK W

Revised zip code: NO CHANGE

| | | |
|----------------------------|--|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Other | Notifier Name: MR RUSSO | Notifier Phone: (212) 580-6763 |
| Caller Name: BILL MURPHY | Caller Agency: CON EDISON | Caller Phone: (212) 580-6763 |
| DEC Investigator: JHOCONNE | Contact for more spill info: BILL MURPHY | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/22/2000 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| UNKNOWN PETROLEUM | PETROLEUM | 5.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

5 GALS OIL ON 50 GALS WATER CONTAINED. CON ED 132-983 CLEAN UP PENDING.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL E2mis notes:

Aug. 22 2000 11:54 hrs. 5 gallons of an unknown oil mixed with approximately 10 gallons of water in MMH 29419 while there todo a preinspection for upcoming contractor work.

PCB and ID samples taken.

8/23/2000: Arochlor 1254, 20 ppm.

9/1/2000: ID= lubricating oil

10/12/2000: Final cleanup

Cleanup info: double wash the structure walls and floor with slix.

Spill source: cable ends Involved equipment: primary cable Leak abatement procedure: seal all cable ends.

Map Identification Number 143 2222 BROADWAY/FILENES BASEMENT



2222 BROADWAY

MANHATTAN, NY

Spill Number: 9306013

Close Date: 01/04/2010

TT-Id: 520A-0091-987

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1366 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Spiller: LORI ZEP CORP. – OWNER

Spiller Phone: (212) 787-7739

Notifier Type: Other

Notifier Name:

Notifier Phone:

Caller Name: MIKE GALLIN

Caller Agency: JOHN GALLIN & SON

Caller Phone: (212) 267-8624

DEC Investigator: jbvought

Contact for more spill info:

Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Unknown RP – DEC Field Response – DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/09/1993 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|--------|--------------------|--------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 0 | POUNDS | 0 | POUNDS | SOIL |

Caller Remarks:

FOUND OIL IN EXCAVATION OF ELEVATOR PIT – IN BASEMENT – CHRIS TOMASELLO WAS NOTIFIED ~1310 HRS.No penalty recommended as spill from unknown source and hence no responsible party to assign violations.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was DEMEO 5/10/04 – AUSTIN – TRANSFERRED FROM TOMASELLO TO DEMEO – END

8/23/05 – Raphael Ketani. Case transferred to Jeff Vought.

7/23/09– Complete File review by Intern E.M Ibeh and DEC JB Vought.

Closed Spill #.

0601671– 79th St and Broadway– Motor oil spill by NYC Transit. 6.00G spilled and 6.00G recovered. Spill cleaned up by Transit thus spill closed on 5/16/06.

0703767- 79-01 Broadway, Elmhurst- "Old oil tank was removed and soil contamination was discovered from #2 fuel oil". Spill closed 10/2/07 due to soil analyticals in the closure report.

No PBS records were found for the property.

The file being reviewed is SP# 9306013, PIN# 93250, 2222 Broadway, NY. Spill date 8/9/93.

8/16/93- Written personal notes stating the address as 22-22 Broadway- NE corner of 79th and Broadway and building as a 2 story wood retail store. Mike Gallin of John Gallin & Sons (P. 212-267-8624) was the caller and he explained that they were digging for piston to extend elevator when they discovered pit filled with oil. Owner is listed as:

Lori Zee 22-70 Broadway 212.787.7739

Undated personal notes from C. Tomasello to M. Tibbe stating that a 'Filene's Basement' was to be built there and contractors were digging a pit for piston of elevator when they hit product. C.Tomasello wrote that he spoke to the rep from Filenes the previous day who said he wanted to get a contractor to pump pit and oil out and into drums. Tomasello agreed but said not to move product until a sample was taken and asked for the place and area to be checked for sources.

8/20/93- Letter from Pedneault Associates, Inc to Fenley and Nicol Co, Inc regarding Filenes-222 Broadway-79th St. subway, Manhattan, NY: Stating that a sample was taken on 8/19 from the above location and was analyzed for fingerprint identification which showed this sample to contain fuel oil.

8/25/93- Letter from NYSDEC to Mr. Luft of Lori Zee Corp, 22-70 Broadway, NY 10023 regarding 2222 Broadway, Manhattan: Stating that the NYSDEC is investigating and/or remediating a petroleum spill which occurred on or near the above-mentioned premises and that the Department will expend State funds to perform this project whilst attempting to determine a responsible party. It also states specific work to be performed on the site viz a) temporary system to de-water the area of the elevator pit, allowing instillation work to be completed, b) groundwater investigation, including well installations, c) permanent recovery system to be installed later at the site. A copy of section 178 Right to Enter and Inspect was attached to the letter.

8/30/93- Letter from Lori-Zee Corp to Mr. Brian Bootay, Filene's Basement Corp, 40 Walnut St, Wellesley, MA 02181: Confirming the presence of liquid discovered in basement during excavation of cellar pit and stated that as a matter of precaution, he had sent sample of liquid to laboratory for testing and advised Mr. Bootay to do same. He requested entry permission and enclosed Right to enter letter from DEC dated 8/25.

10/29/93- Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as weekly for 2 months. 0.00G of product bailed and total recovered but well #1 contained a film of floating product (FP).

11/24/93- Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as weekly for 2 months. 0.00G of product bailed and total recovered but well #1 contained a film of FP.

12/29/93: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as weekly for 2 months. 0.00G of product bailed and total recovered but well #1 contained a film of FP.

12/30/93: Personal notes from C.Tomasello: Stating that K. Blumberg of F&N was installing sump pit and separator at the site

^next week^.

1/28/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as weekly for 2 months. 0.00G of product bailed and total recovered. No FP detected.

2/4/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as weekly for 2 months. Its comments list wells as `OK`.

3/29/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as weekly for 2 months. Its comments list wells as `OK`.

4/22/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as weekly for 2 months. 0.00G of product bailed and total recovered.

5/6/94: Report from F&N to M.Tibbe of DEC stating that F&N reviewed file for possible closure as requested because no FP had ever been recovered. Summarized was the spill case from inception and stated was 523gallons of liquid (478gal.water and 45gal. oil) that F&N removed from the excavated area, when oil spill was reported, via vacuum truck. It also stated that F&N returned to the site in 9/93 and removed ~1400gallons of all liquids consisting of water and oil, using a vacuum truck and following this work, the DEC proceeded with installation of a minor recovery system consisting of a sump pump and oil/water separator. Attached were monitoring reports and a Site Schematic of the System.

5/13/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as monthly, 0.00G of product bailed during visit and wells listed as `OK`.

6/10/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring sch-edule as monthly. 0.00G of product bailed and total recovered and no FP detected.

7/20/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as monthly. 0.00G of product bailed and total recovered and no FP detected.

8/12/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as monthly. 0.00G of product bailed and total recovered and no FP detected.

9/23/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as monthly. 0.00G of product bailed and total recovered and no FP detected.

10/13/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as monthly. 0.00G of product bailed and total recovered and no FP detected.

11/21/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring /chedule as monthly. 0.00G of product bailed and total recovered and no FP/detected.

12/8/94: Monitoring report from Fenley&Nicol Environmental to DEC: Stating monitoring schedule as monthly. 0.00G of product bailed and total recovered and no FP detected.

2/2/95: ISR stating clean-up of Filene's Basement as completed on 1/27/95.

7/29/09- As per Tibbe, the driller was nervous to drill in the basement as the foundation was unstable and no free product was discovered.

7/30/09- As per Bechard of the NYSOAG, there was no information regarding SP# nor case settlement by the OAG.

8/13/09- Vought called Filene's Basement and spoke to Mike Brown(212-873-8000), the manager, who said to sent letter requesting visit to property to inspect elevator shaft and basement.

08/18/09-Vought-Spoke to DEC Farrar and as Att. Gen. Close Date box is filled out in UIS, no Final ISR needed.

09/14/09-Vought-Called Brown to inform him that letter was drafted and being sent in mail and also via fax machine.

09/16/09-Vought-Performed site visit and met Brown onsite. Vought inspected elevator pit and no signs of seepage via visual and olfactory evidence. Vought also inspected rear stockrooms of site and noticed no seepage, no staining, no odors. Site is currently using natural gas. No recovery system onsite. Vought to discuss spill closure with DEC Austin.

1/4/09-Vought-Discussed spill closure with DEC Austin and spill closed due to no signs of petroleum seepage during site visit and lack of free product as per notes above dated 5/13/94-12/8/94. Due to store, basement was significantly developed from prior use during spill.

Map Identification Number 144 **1 W 72ND ST/DAKOTA**
 1 W 72ND ST/DAKOTA

NEW YORK, NY

Spill Number: 9112772

Close Date: 03/18/1992
 TT-Id: 520A-0095-281

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1368 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: 1 W 72ND ST
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Citizen
 Caller Name:
 DEC Investigator: O'DOWD

Spiller:
 Notifier Name:
 Caller Agency:
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 03/13/1992 | 03/18/1992 | UNKNOWN | UNKNOWN | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 1000 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

FUEL IN BASEMENT.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 145

MAN HOLE #27479

Spill Number: 1500952

Close Date: 05/14/2015



WEST 78 STREET AND BROADWAY

NEW YORK, NY

TT-Id: 520A-0309-046

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 1473 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: W 78TH ST / BROADWAY

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN

Notifier Type: Other

Caller Name:

DEC Investigator: RWAUSTIN

Spiller: ERT - CON ED

Notifier Name:

Caller Agency:

Contact for more spill info: ERT

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 04/28/2015 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 10.00 | GALLONS | 0.00 | GALLONS | |

Caller Remarks:

spill to man hole, no resurces affected

DEC Investigator Remarks:

4/28/15: Mahat Spill case has been crossed referenced to EMIS 240372. ConEd has collected the sample for laboratory analysis. Spill case has been assigned to Con Ed Unassigned.

5/14/15 – Austin – 10 gals unk. oil atop 10 gals water in vault – Con Ed contained and cleaned up the spill; no source for oil found in manhole – See document files for further information – Spill closed – end

Map Identification Number 146

WEST 74TH ST/BROADWAY
WEST 74TH ST/BROADWAY



MANHATTAN, NY

Spill Number: 9509545

Close Date: 07/31/1997
TT-Id: 520A-0090-143

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
Approximate distance from property: 1493 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL VEHICLE
Notifier Type: Local Agency
Caller Name: MRS SMITH
DEC Investigator: KSTANG

Spiller:
Notifier Name: MR MORESTADT
Caller Agency: EPA #126
Contact for more spill info: MR MORESTADT

Spiller Phone:
Notifier Phone: (212) 570-4300
Caller Phone: (718) 595-6777
Contact Person Phone: (212) 570-4300

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 11/02/1995 | | UNKNOWN | NO | NO |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

Caller Remarks:

unknown circumstances caused 200 gal oil truck to spill oil into roadway spill contained to prevent going into sewer or off roadway unknown whatr other cleanup proceeedure is in process

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TANG AFTER CONSIDERING THE FACT THAT THE SPILL OCCURRED SO LONG AGO, AND THE REMARKS INDICATE NO LONG-TERM FOLLOW-UP NEEDED. I HAVE CLOSED THIS SPILL.

Map Identification Number 147 **86 STREET TRANSVERSE DPR –DDC**
 86TH STREET & TRANSVERSE ROAD

Spill Number: 9600735
 MANHATTAN, NY

Close Date: 02/18/2011
 TT-Id: 520A-0098-767

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 1560 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: W 86TH ST / TRANSVERSE RD
 Revised zip code: 10024

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
 Notifier Type: Other
 Caller Name: BILL FENNELL
 DEC Investigator: ADZHITOM

Spiller: JERRY QUINN – NYC DEPT OF PARKS
 Notifier Name: ENSA ENVIRONMENTAL
 Caller Agency: PRIVATE CONTRACTOR
 Contact for more spill info: JERRY QUINN

Spiller Phone: (212) 754-6542
 Notifier Phone: (914) 268-6660
 Caller Phone: (718) 937-3286
 Contact Person Phone: (212) 754-6542

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors),
 contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 04/15/1996 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

during construction found contaminated soil – bldg is inside central park

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was KOLLEENY

05/23/05: This spill transferred from J. Kolleeny to A. Zhitomirsky, who is now DEC case manager for the site. – JK

Pump and treat system is treating site contaminants since July 2004. AZ

9/20/2006 Reviewed system monitoring report submitted by URS and dated 8/23/2006. Pump and treat system is collecting contaminants. URS recommended continuation of the system operation because of exceedances in contaminant concentrations measured during last monitoring event. AZ

8-17-2007 An e-mail was sent to URS: I have reviewed request for revised remedial strategy submitted by URS and dated 5/30/2007. In April 2007 groundwater samples were collected. EW-02 was flooded, EW-03 and MW-08 were under a dumpster, EW-04 appears to have been paved over. URS stated that the plume is essentially contained within the property boundary. Existing VOC

concentrations are not effectively treated by chemical oxidation injections or oxygen source injections. URS recommended monitored natural attenuation for this site. DEC concurred with URS's proposals. However, wells which have not been sampled should be sampled and repaired if needed. AZ

3-5-2009 An e-mail was sent to J. Staten/DDC/V. Brevdo: The above spill is associated with this site. The spill report indicated that soil contaminated with #2 fuel was encountered. This spill should be investigated. This spill number should be indicated on all submittals related to this spill/site. AZ

3-6-09 The PBS # for the NYCDPR 86th Street Transverse site is 2-600308. According to PBS the site has active 7,500 gal heating oil tank. Info received from Jane Staten: According to the Investigation Summary and Remedial Plan (ISRP) prepared by Raritan Enviro Services, Inc. (RES) in 1996: During the upgrade of USTs 1 and 2, petroleum soil contamination was found near the heating oil tank (UST 3). This was reported to the NYSDEC on April 16, 1996 and assigned spill # 9600735. AZ

3-9-2009 An e-mail was sent to J. Staten: I have reviewed the submitted materials. They confirm that during the upgrade of USTs 1 and 2, petroleum soil contamination was found near the heating oil tank (UST 3). This was reported to the NYSDEC on April 16, 1996 and assigned spill # 9600735. Since that time no contaminated soil was removed or treated from the heating oil tank area. Moreover, persistent groundwater contamination might be explained by still present source (soil contamination). At this point, URS should sample soil and address soil contamination in the heating oil tank area. AZ

7-15-09 An e-mail was sent to Jane Staten and DDC: I reviewed this case. In order to close this spill (or address it) we'll need to advance soil borings. As per our standard procedure, URS should propose soil boring locations and DEC will review them. AZ

3-2-2010 Reviewed and approved Soil Investigation WP. an e-mail was sent to J. Staten: I have reviewed Soil Investigation Work Plan for this site. The plan is approved. If groundwater is encountered, groundwater monitoring wells should be installed, developed and sampled. AZ

2-18-2011 Reviewed Groundwater monitoring report for the second quarter 2010 and soil sampling results dated Aug.30, 2010 and submitted to DEC at the meeting on 2-17-2011. According to the report the spill#9600735 was assigned on April 16, 1996, due to the presence of petroleum contamination found near the 7,500_gallon heating oil tank during the upgrade of the two gasoline USTs. The heating oil UST passed tightness testing in February 2000 and again in February 2005. URS requested closure of the spill #9600735. In response DEC requested an additional soil sampling to confirm absence of soil contamination. The sampling was performed in June 2010. There were no exceedances of TAGM guidelines. Based on the above information spill#9600735 is closed. The remaining groundwater contamination will be tracked under spill#9502313. AZ

The following e-mail was sent to K. Shenahan(URS), M. Asbagh (DDC) and V. Brevdo: Dear Kevin,

I have reviewed Groundwater monitoring report for the above site for the second quarter 2010 and soil sampling results dated Aug.30, 2010 and submitted to DEC at the meeting on 2-17-2011. According to the report the spill#9600735 was assigned on April 16, 1996, due to the presence of petroleum contamination found near the 7,500 gallon heating oil tank during the upgrade of the two gasoline USTs.

The heating oil UST passed tightness testing in February 2000 and again in February 2005. URS requested closure of the spill #9600735. In response DEC requested an additional soil sampling to confirm absence of soil contamination. The sampling was performed in June 2010. There were no exceedances of TAGM guidelines. Based on the above information spill#9600735 is closed. The

remaining groundwater contamination will be tracked under spill #9502313. The Department hereby reserves all of its rights concerning, and such forbearance shall not extend to, any further investigation or remedial action the Department deems necessary due to: 1. The off-site migration of petroleum contaminants that was unknown at the time of this closure; 2. Environmental conditions related to this spill case which were unknown to the Department at the time of this closure; 3. Information received, in whole or in part, after the Department's spill case closure, which indicates that the corrective action was not sufficiently protective of human health for the reasonably anticipated use(s) of the site; or 4. Fraud committed in obtaining this spill closure determination. Sincerely, AZ

Map Identification Number 148 **SERVICE BOX 13680** **Spill Number: 0903063** **Close Date: 07/23/2009**
 241 WEST 76 ST MANHATTAN, NY TT-Id: 520A-0229-475

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1562 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: 241 W 76TH ST
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: ERT – UNKNOWN Spiller Phone:
 Notifier Type: Local Agency Notifier Name:
 Caller Name: Caller Agency: Notifier Phone:
 DEC Investigator: RWAUSTIN Contact for more spill info: ERT Caller Phone:
 Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 06/15/2009 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #6 FUEL OIL | PETROLEUM | 50.00 | GALLONS | 0.00 | GALLONS | |

Caller Remarks:

Clean up is pending company resources. NRC # 908658

DEC Investigator Remarks:

DECPiper received call off hours. 50 gal of #6 oil ound in service box. AS con Ed does not use #6 oil in service boxes, it is believed to be coming from a local source. The service box is in front of 235-41 W. 76th St. PBS # 2-047295 Piper received e-mail from David Grossman, property mgr on PBS form.

NY Heating will inspect the fill line. I believe that the oil observed in the Con Edison vault is related to an oil spill January 29, 2009. The oil spilled onto the public sidewalk. Approved Oil, our oil delivery company, hired Petroleum Tank Cleaners, a registered contractor to clean the oil spill. The spill was assigned # 0811804.

7/23/09 – Austin – Spill in vault cleaned up by Con Ed – see EMIS in eDocs – closed this spill, referred to #0811804, a 3rd party spill. – end

Map Identification Number 149

APARTMENTS

Spill Number: 0811809

Close Date: 01/29/2009



235 WEST 76TH ST

MANHATTAN, NY

TT-Id: 520A-0226-357

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1562 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Local Agency
 Caller Name:
 DEC Investigator: smsanges

Spiller: BETSY PETERS – APARTMENTS
 Notifier Name:
 Caller Agency:
 Contact for more spill info: BETSY PETERS

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (212) 787-6262

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 01/29/2009 | | UNKNOWN | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 20.00 | GALLONS | 0.00 | GALLONS | SOIL, SEWER |

Caller Remarks:

Caller states during a fill oil was spilled to the sidewalk. Cleanup crew is enroute.

DEC Investigator Remarks:

Duplicate spill – Ref to # 0811804 PTC is doing the cleanup 718-624-7490

Map Identification Number 150 **CONDO 235 W 75TH ST**
 235 W.75TH ST

NEW YORK, NY

Spill Number: 9108106

Close Date: 12/27/2002
 TT-Id: 520A-0097-828

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1573 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Other
 Caller Name:
 DEC Investigator: SJMILLER

Spiller:
 Notifier Name:
 Caller Agency:
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone:
 Contact Person Phone:

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/30/1991 | | UNKNOWN | YES | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | -1.00 | GALLONS | 0.00 | GALLONS | AIR |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was MILLER 11/1/91 @0920hrs, MILLER RESPONDED TO SPILL: SPILLAGE IS RELATED TO ONGOING STATE-FUNDED CLEANUP AT 241 WEST 75TH STREET - SPILL REPORT NO. 9108242.

SEE SPILL REPORT NO. 9108242.

Map Identification Number 151 **235 W. 75TH ST**
 235 WEST 75TH ST

MANHATTAN, NY

Spill Number: 0308109

Close Date: 03/21/2006
 TT-Id: 520A-0097-829

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1573 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|--|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Other | Notifier Name: MARTHA GOUPIT | Notifier Phone: (212) 207-1809 |
| Caller Name: MARTHA GOUPIT | Caller Agency: CARAN PROPERTYS | Caller Phone: (212) 207-1809 |
| DEC Investigator: KSTANG | Contact for more spill info: MARTHA GOUPIT | Contact Person Phone: (212) 207-1809 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/30/2003 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|---|---|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |
| The following material(s) was dropped or revised by the UNKNOWN PETROLEUM | NYS DEC. Call Toxics Targeting for more information UNKNOWN | 0 | GALLONS | 0 | GALLONS | |

Caller Remarks:

CALLER STATES HER COMPANY WAS DIGGING FOOTINGS YESTERDAY AND CONTAMINATION WAS FOUND IN THE DIRT – THERE IS A HISTORY OF A SPILL NEXT TO THE SITE BACK IN 1995-96 / NO REMEDIATION HAS BEEN STARTED AT THIS TIME, THEY ARE REQUESTING A CALLBACK FROM DEC

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SAWYER 10/31/03 TJD

Site was formerly a PIN job (spill #9108119 PIN#91283). Caller reports unknown petroleum seeping into excavation from saturated soils. Material suspected to be emanating from 241 West 75th St. Sawyer performed site visit.

Contact information: Martha Goupit: Management agent Caran Properties 150 E 58th Street 27th Floor NY, NY 10155 Cell:(917)974-8151

Building Super: Ricky Koakaj Pager: (917)738-8228 Phone: (212)595-4620

Front desk @235 W75th St. 212 787 3407

10/31/03 1430 Hrs – Sawyer – Performed sight visit but was not able to confirm that the source was next door again. Steve Kirchner of Kay Equities (917)912-0099 241 W 75th was persistent that his tank was not the cause this time. Two passing tank system test later, he may be right.

11/4/03 1030 Hrs – Sawyer – I let Ricky and their insurance agent that we could not pinpoint the origin. 12/16/05– DEC Piper

left message w/ Martha Goupit, requesting callback. 3/8/06– DEC Piper left message w/ Martha Goupit, requesting callback. 3/9/06– DEC Piper received e-mail and summary report/letter. AS per report, during Oct. 2003 footing work, free floating product discovered on groundwater. Test show oil is a match for adjacent property. Sp#9108119. Spill referred to remediation. Re-assigned to K. Tang.

3/21/06 – Spoke to Bryan DeVaux of P.W Grosser. He observed the floating product in a 2’x2’ excavation, and it was only about 1/4 thick. The oil looks very weathered. The area is now backfilled. Spoke to PM of the PIN cleanup (spill # 9108119) at this site and the source next store. He said that there is going to be a layer of contaminated soil trapped underground and whenever it is disturbed, it will release some oil to the water table. The PIN job has recovered as much oil as possible before closure in 1998. Since this residual contamination is not causing any odor complaint, and it does not appear to have any significant impact to the environment or the public health, NFA can be issued and spill closed. – KSR

Map Identification Number 152

SPILL NUMBER 0301510

Spill Number: 0301510

Close Date: 05/12/2003



2159 BROADWAY

MANHATTAN, NY

TT-Id: 520A-0101-370

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1573 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Citizen
 Caller Name: MARGARITA LUNA
 DEC Investigator: JXZHAO

Spiller: UNKNOWN
 Notifier Name: SAME
 Caller Agency: THE BODY SHOP
 Contact for more spill info: MARGARTIA LUNA

Spiller Phone:
 Notifier Phone:
 Caller Phone: (212) 721-2947
 Contact Person Phone: (212) 721-2947

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 05/12/2003 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

Caller states that there is an unknown oil spilled on street in front of her business. Caller is requesting to speak to DEC regional office in reference to problem.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was ZHAO 5/12/2003 – Green color oil on sidewalk and street, no drains involved, referred to NYC Dept. of Sanitation.

Map Identification Number 153 **APARTMENT COMPLEX** **Spill Number: 0210091** **Close Date: 03/21/2003**
 250 W 77TH ST MANHATTAN, NY TT-Id: 520A-0095-758

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1577 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|--|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: KENNETH ROSEN – SUMMIT TRANSPORT | Spiller Phone: (973) 777-0404 |
| Notifier Type: Responsible Party | Notifier Name: DRIVER | Notifier Phone: |
| Caller Name: KENNETH ROSEN | Caller Agency: SUMMIT TRANSPORT | Caller Phone: (973) 777-0404 |
| DEC Investigator: TJDEMEO | Contact for more spill info: KENNETH ROSEN | Contact Person Phone: (973) 777-0404 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/06/2003 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 30.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

MATERIAL SPILLED FROM A VENT PIPE ON TO THE SIDEWALK. CREW ENROUTE FOR CLEANUP.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was DEMEO ARAKHAN 1/7/03 DELIVERY MADE TO WRONG BLDG. SPILL ONTO CONCRETE; NO SEWER AFFECTED. CLEANUP IN PROGRESS UNDER DEMEO'S SUPERVISION.

1/21/03 TJD Site reinspected. Impacts to sidewalk remediated. Tank vault opened and petroleum impacts cleaned. Awaiting copies of disposal manifests for contaminated debris removal.

3/21/03MT manifest arrived, nfa necessary

Map Identification Number 154 **CO-OPERATIVE** **Spill Number: 9910368** **Close Date: 03/04/2003**
 212 W.85TH ST MANHATTAN, NY TT-Id: 520A-0092-675

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1609 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|--|--|--------------------------------------|
| Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER | Spiller: CO-OPERATIVE | Spiller Phone: |
| Notifier Type: Citizen | Notifier Name: KRISTIN SUMMERS | Notifier Phone: (212) 721-7731 |
| Caller Name: KRISTIN SUMMERS | Caller Agency: CITIZEN | Caller Phone: (212) 721-7731 |
| DEC Investigator: TOMASELLO | Contact for more spill info: KRISTIN SUMMERS | Contact Person Phone: (212) 721-7731 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 11/29/1999 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | AIR |

Caller Remarks:

ODOR OF OIL COMING FROM BASEMENT. REQ CONTACT FROM DEC.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

12/1/99 Sangesland made an inspection of the site. Tank in basement room looks old with oil staining visible. Fans are used to vent out the oil smell in the basement.
 A 30 day notice was sent to the manager
 Pride Property Management Corp
 11 New St
 Engelwood Cliffs, NJ 07632
 Attn: Alex Kuffel - Manager

Fax 201-567-1960
 Phone 212-690-0800

30 Day notice said:

- 1) Do a tank test (1/11/200 call said tank past test after minor repairs)
- 2) Clean the tank room & epoxy paint the room
- 3) Updated PBS form should be posted

1/11/2000 Sangesland received letter from Pride Management including:

- 1) Letter from Aggressive Heating Inc (12/21/99) saying tank tightness testing report shows tank is OK.
- 2) Copy of Horner EZ test done by Bernard Bauer of New York City Tank Testing Inc. (Cert #642329) 1624 Webster Ave Bronx. Test done on 12/14/1999.
- 3) Aggressive Heating replaced manhole gasket, replaced oil return line. Tank is Not on saddles

Tank capacity 5000 gal

2/22/2000 call from Kristen Summers saying smell in her apartment is still there. Tank room has not been cleaned and walls have not been epoxy painted. Sangesland called Pride Management and left a message with Mr. Kuffel to follow up on cleaning & painting and return call.

3/19/2001 – Kristen Summers called again saying the smell is coming back up into her apartment. New contact person at Pride Management is Ben Celaj. Sangesland left a message for Ben Celaj to call Sangesland to discuss the problem.

Map Identification Number 155



SPILL NUMBER 9714534

152 WEST 72ND ST – APT 5B

MANHATTAN, NY

Spill Number: 9714534

Close Date: 04/07/1998

TT-Id: 520A-0095-284

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1611 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: 152 WEST 72ND ST
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
 Notifier Type: Federal Government
 Caller Name: GAD TAWADROS
 DEC Investigator: CAENGELH

Spiller: UNKNOWN
 Notifier Name: MARY RING
 Caller Agency: EPA
 Contact for more spill info: MAARY RING

Spiller Phone:
 Notifier Phone: (212) 799-9036
 Caller Phone: (732) 321-6648
 Contact Person Phone: (212) 799-9036

Category: Investigation indicates there was no spill.
 Class: Any Type of RP Including No RP – No DEC Field Response – Corrective Action by Spill Response Not Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 03/30/1998 | | OTHER | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| PESTICIDES | OTHER | 0 | GALLONS | 0 | GALLONS | AIR |

Caller Remarks:

mary ring's apartment was sprayed for bugs a month ago and she can still smell it and taste it – would like someone to check the air. if dec cannot help please notifier caller of who to call.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was ENGELHARDT Engelhardt was on duty but was not contacted by Colonie. Received report in office the next day.

4/7/98 – called Mary ring. Says tenants in adjacent apt and apt below are putting harmful vapors into ventilation system. Referred her to the NYC Health Department and to the NYC Department of Housing Preservation and Development.

Map Identification Number 156

148 WEST 72ND ST
148 WEST 72ND ST



MANHATTAN, NY

Spill Number: 0807618

Close Date: 11/25/2008
TT-Id: 520A-0220-591

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 1611 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
Notifier Type: Other
Caller Name:
DEC Investigator: hrpatel

Spiller: NONE – UNKNOWN
Notifier Name:
Caller Agency:
Contact for more spill info: NONE

Spiller Phone:
Notifier Phone:
Caller Phone:
Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
|-------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 10/07/2008 | | UNKNOWN | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | | PETROLEUM | 100.00 | GALLONS | 0.00 | GALLONS | SOIL, SEWER |

Caller Remarks:

An unknown caller reported to DEP above spill. Nothing further other than it is supposed to be in the street and oil is going into the catch basin.

DEC Investigator Remarks:

10/07/08–Hiralkumar Patel. visited site. found oil on sidewalk. met cleanup crew from Enterprise Transportation, who delivered oil at the building. crew was cleaning up oil on sidewalk. oil spilled from a vent pipe, as a result of overfill, on sidewalk and some oil entered into trap door on sidewalk. so oil was also found on steps to basement. found drain at the bottom of steps. found minor oil in the drain. found oil in tree area in front of 148 W 72nd street building. found petroleum odors inside Domino Pizza place at the building.

spoke with Peter, building super. site has one 5000 gal #4 oil AST, sitting on broken floor. as per Peter, Enterprise delivered oil at about 7 AM and as driver noticed spill, oil company sent crew for cleanup. he noticed oil spill lateron. 5000 gal tank delivers oil to buildings from 140 to 148 W 72nd Street.

inspected tank room. no sign of overfill from tank. all lines runs aboveground except part of fill and vent lines that runs under sidewalk. vent line is located along building foundation wall. fill and vent line enters into basement via an old coal chute. found oil spill in this coal chute and then ran along tank room wall for about 15 ft to tank room floor. tank room floor is in bad shape. found contaminated soil in area below entrance of fill/vent line. found leak at elbow in fill line, which is outside of coal chute area. found abandoned 275 gal AST in tank room corner.

spoke with Carmine at Enterprise. they delivered oil for Hess. Enterprise took responsibility and has called his insurance company AIG. as per Carmine, AIG hired Envirotrac for cleanup. spoke with Ted at Envirotrac. asked him to cleanup spill from sidewalk, tree area in front of the building, steps to basement and also inside tank room. after this, asked him to test entire tank system before any further work.

met Eric from Hess.

as per super, tank had about 2400 gal oil in it and he ordered 2000 gal oil. as per delivery ticket, driver delivered 1742 gal when oil came out from vent. gauge might not be working properly.

received call from Rene Lewis. he has been hired by property manager as fill line might be leaking. Rene mentioned that he met

Andrew Kelly from DEP who came to inspect drain at the end of basement steps. as per Rene, Andrew found no oil in drain and no violation has issued.

alternate addresses:

140 W 72 St 154 REAR W 72 St 154 W 72 St, 152 REAR W 72 St 152 W 72 St 150 W 72 St 146 W 72 St 144 REAR W 72 St 144 W 72 St 142 REAR W 72 St 142 W 72 St

PBS #: 2-187852

Peter Borocan

building super Ph. (212) 873-3038 (H)

(914) 304-7871 (C)

140-154 W. 72 Realty LLC.

building owner c/o S.W. Management LLC.

management office 502 E 79th Street, Suite B1 New York, NY 10075 Attn.: Jack Atkin

building manager PH. (212) 535-8082 Fax (212) 396-2951 email: jakerachele@yahoo.com

Enterprise Transportation

delivery company 142 2nd Street Brooklyn, NY 11231 Attn.: Carmine Salcone Ph. (718) 596-4477 Fax (718) 596-0683

10/08/08-Hiralkumar Patel. spoke with Mr. ATkin. he mentioned that contractor is cleaning inside tank room and will do tank test today. asked Mr. Atkin to provide tank test result by end of today.

11/06/08-Hiralkumar Patel. left message for Mr. Atkin to submit documents by end of tomorrow (11/07/08).

spoke with Rene. he mentioned that he removed about 2 ft deep soil from tank room area and during tank test found vent line leaking. he replaced vent line and tested tank again. tank passed second test after vent pipe replacement. Rene mentioned that property manager's environmental contractor will collect endpoint samples.

Kenneth Friedman Shaindel environmental inc. Ph. (914) 762-2296 Fax (914) 727-1139 email: secikf@optonline.ne

11/14/08-Hiralkumar Patel. received email from Mr. Friedman from Shaindel environmental with spill closure report. abstract:

- exterior spill from vent pipe was cleaned out by Envirotrac - AST passed tank test - one endpoint soil sample was collected at 6-12 inches below excavation bottom inside tank room

but report missing following:

– scaled site map including locations of entire tank system, spill areas, excavation and endpoint sample – final dimensions of excavation

sent email to Mr. Atkins requiring submission of above missing information alongwith color photographs of spill areas after cleanup.

11/17/08–Hiralkumar Patel. received email from Ken with photographs and unscaled site map. according to site map, they excavated 5 ft by 6 ft area in tank room, near foundation wall where fill line/vent line cross the foundation wall.

11/24/08–Hiralkumar Patel. visited site to confirm cleanup. inspected tank room. contaminated soil removed, but some stained soil in place. no odors inside tank room. observed soil stain on foundation wall under vent pipe location. no more oil coming out from vent pipe area. spoke with super. they replaced vent pipe. old vent pipe was crossing sidewalk concrete and thats only part was invisible.

observed active fill port/vent pipe for 275 gal AST inside tank room. asked super to seal fill port for 275 gal tank.

based on submitted report and observation during site visit, case closed.

Map Identification Number 157

SPILL NUMBER 0006084

Spill Number: 0006084

Close Date: 08/22/2000



64 W 87TH ST

MANHATTAN, NY

TT-Id: 520A-0091-138

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 1613 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL
Notifier Type: Federal Government
Caller Name: CPO LAURA WARE
DEC Investigator: SACCACIO

Spiller:
Notifier Name: NRC
Caller Agency: USCG
Contact for more spill info: CPO LAURA WARE

Spiller Phone:
Notifier Phone: (800) 424-8802
Caller Phone: (718) 354-4136
Contact Person Phone: (718) 354-4136

Category: Investigation indicates there was no spill.
Class: Any Type of RP, Including No RP – DEC Field Response – Corrective Action Not Required or Not Possible

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 08/22/2000 | | OTHER | NO | NO |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

Caller Remarks:

caller states the restaurant across the street is illegally venting fumes from the kitchen

 DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

Spoke to USCG who provided the number of the original complainer – Jon Ortner lives down the street from a new deli who is venting their bacon odors to the street through a vent 6’ above the sidewalk. I referred Mr. Ortner to DEP and informed the air unit (via email) of the situation. Closed.

Map Identification Number 158

MANHOLE #27450

Spill Number: 0002592

Close Date: 04/02/2004



73RD ST/BROADWAY

MANHATTAN, NY

TT-Id: 520A-0101-960

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 1623 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: W 73RD ST / BROADWAY
 Revised zip code: 10023

Source of Spill: UNKNOWN
 Notifier Type: Affected Persons
 Caller Name: JAMES FOX
 DEC Investigator: JHOCONNE

Spiller: UNKNOWN
 Notifier Name: BOSCE
 Caller Agency: CON ED
 Contact for more spill info: JAMES FOX

Spiller Phone:
 Notifier Phone:
 Caller Phone: (212) 580-6763
 Contact Person Phone: (212) 580-8383

 Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 06/01/2000 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM | 2.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

SAMPLE TAKEN, CLEAN UP PENDING CON ED#131657

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL e2mis no. 131657:

aprox 2-gallons unknown oil mixed with 150-gallons water in mh-27450... NO sewer connection as per Conduit Plate 36-D-3...
Cleanup pending test results...

lab sequence # 00-05328 PCB <1 ppm

DATE AND TIME THE CLEAUP WAS COMPLETED: 06/02/00, 18:00. CLEANUP PROCEDURE: OIL AND WATER REMOVED VIA TANKER UNDER 50 PPM, FLUSH TRUCK FROM ENVIRONMENT OPERATIONS USED A HIGH PRESSURE HOSE TO DOUBLE WASHED THE FLOOR AND WALL'S WITH BIO-GENESIS SOLUTION (SLIX), MANHOLE WAS THEN RINSED BY FLUSH TRUCK.

Map Identification Number 159 **APARTMENT** **Spill Number: 0514747** **Close Date: 05/15/2006**
 241 WEST 75TH ST MANHATTAN, NY TT-Id: 520A-0098-741

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1647 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|---------------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: MR KUKAJ - APARTMENT | Spiller Phone: (212) 595-4820 |
| Notifier Type: Local Agency | Notifier Name: DENNIS HUACON | Notifier Phone: (347) 865-1238 |
| Caller Name: DENNIS HUACON | Caller Agency: NYCDEP | Caller Phone: (347) 865-1238 |
| DEC Investigator: rmpiper | Contact for more spill info: MR KUKAJ | Contact Person Phone: (212) 595-4820 |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/24/2006 | | OTHER | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

THE OIL LINE RUNNING ALONG THE BUILDING IS DAMP WITH OIL;

DEC Investigator Remarks:

listed owner 241–243 West 75TH Street Tenants Corp. 241–243 West 75TH Street New York NY 10023

spoke w/ Brian, manager. as per conversation Eastmond to pump tanks and set up temp. Isolation test will be done on Monday. 1600hrs. Rene Lewis for mEastmond on site. AS per Rene, the leak seems to be coming from and above grade return line. Return line is on ledge above ground. Eastmond will install temp. line a test tank, system over weekend.

4/18/06– DEC Piper spoke w/ Steve of bldg. Instructed Steve to contact Eastmond and have them provide documentation of repairs.

5/15/06– DEC Piper received documentation of cleanup and minor repairs to tank system. Closed. See E–Docs if warranted.

Map Identification Number 160 **15 GAL ANTIFREEZE IN MANHOLE #12879** **Spill Number: 0701081** **Close Date: 06/28/2007**
 17 WEST 71 STREET MANHATTAN, NY TT–Id: 520A–0090–296

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1668 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: 17 W 71ST ST
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER Spiller: ERTSDESK – CON EDISON MH #12879 Spiller Phone: (212) 580–8383
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: Caller Phone:
 DEC Investigator: gdbreen Contact for more spill info: ERTSDESK Contact Person Phone: (212) 580–8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non–petroleum/non–hazardous spills.
 Class: Any Type of RP Including No RP – No DEC Field Response – Corrective Action by Spill Response Not Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 04/26/2007 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| ANTIFREEZE | OTHER | 15.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

ON 15 GALLONS OF WATER: CONED#205554

DEC Investigator Remarks:

06/28/07 – See eDocs for Con Ed report detailing cleanup and closure. 205554. see eDocs

Map Identification Number 161

SB12896

Spill Number: 0404949

Close Date: 10/22/2004



17 WEST 71 ST

MANHATTAN, NY

TT-Id: 520A-0095-731

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1668 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: 17 W 71ST ST
 Revised zip code: NO CHANGE

| | | |
|----------------------------|--|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: BILL MURPHY | Spiller Phone: (212) 580-6763 |
| Notifier Type: Other | Notifier Name: BILL MURPHY | Notifier Phone: (212) 580-6763 |
| Caller Name: BILL MURPHY | Caller Agency: CONED | Caller Phone: (212) 580-6763 |
| DEC Investigator: JHOCONNE | Contact for more spill info: BILL MURPHY | Contact Person Phone: (212) 580-6763 |

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/05/2004 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 16.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

no fire,smoke,or private property,no sewers.oil spilled onto 200 gallons of water.con ed spill #-154725

DEC Investigator Remarks: NOTE: These remarks are shorter than in the previously tracked spill

e2mis 154725:

16 gallons of unknown oil and 200 gallons of water in service box SB12896. Allstate PowerVac was in the process of flushing the service box removing cement and dirt when the top layer of dirt fell into the service box revealing the oil and water below. They immediately stopped their work, but believe that some oil has entered their truck and contaminated it. Cleanup is pending lab results.

EH&S rep called to report that he spoke to the crew, crew supervisor & Allstate personell on site & they reported that it is not 16 gallons of oil that was initially reported but only 2 gallons of oil.

15:00 hrs. the cleanup was completed by Allstate PowerVac. The following solid debris was removed from the structure: 7 pieces of 3 ft. 2x4 wood, concrete, black top, dirt, toothbrush, spoon and other items. The vendor used Enviro-Prep solution as required to address any lead issue. 40 gallons of oil & water mix was removed. The structure was double washed and rinsed with Citrus Cleaner.

Lab Sequence Number: 04-06192-001: PCBs < 1 ppm

Lab Sequence Number: 04-06193-001: Analysis indicates the presence of a substance similar to a light fuel oil.

Lab Sequence Number: 04-06192-002: Flash Point, PMCC > 140 deg F

Map Identification Number 162

MANHOLE #25950

Spill Number: 0207710

Close Date: 02/10/2003



86TH ST & AMSTERDAM AV

MANHATTAN, NY

TT-Id: 520A-0101-347

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 1699 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: W 86TH ST / AMSTERDAM AVE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Affected Persons
 Caller Name: LARRY COSTA
 DEC Investigator: KMFOLEY

Spiller: UNKNOWN - Unknown
 Notifier Name: JOHN MORAN
 Caller Agency: CON EDISON
 Contact for more spill info: CALLER

Spiller Phone:
 Notifier Phone:
 Caller Phone: (212) 580-6763
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/25/2002 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN MATERIAL | OTHER | 10.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

10 GLS OF UNKNOWN ON 10 GLS OF WATER. CLEAN UP WILL BEGIN WHEN RESULTS ARE IN.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was FOLEY Con Ed e2mis #145726:

10-25-02 @ 04:05 THIS INCIDENT WAS REPORTED @ 04:05 AND WAS INPUTTED @ 05:05 DUE TO THE SYSTEM BEING DOWN. R Ringen #65144 reports that while doing scheduled feeder work @ m25950 located at n/e/c w 86 st & amsterdam av, he discovered 3 gallons of an

unknown substance (possibly old insulatum from a blown joint) on the concrete floor and walls of the structure and the cables and arc proofing in the structure mixed with 10 gallons of water (the structure makes water). There was or is no smoke or fire involved. No sewer or waterway affected. No injuries and weather had no affect. Account # 12030 is being used for this incident. No measuring device was used to determine the amount of the spill. Source and cause of spill are unknown. No private property affected. No oil filled equipment in the structure. No askarel components involved. Water is standing. There is visual water movement. There is a sewer connection as per conduit plate m-40-d-3. Sump is not verified. No sump pump. Ther are substantial cracks. Access anytime. No dielectric filled feeder in the structure. 2 sludge samples taken from the spill, 1 for id and 1 for pcb . Sample priority E . Chain of custody # bb02940. Cleanup is pending lab results.

Lab Sequence Number: 02-10034-001 Date Approved: 10/25/2002 E2 Incident Number: 145726 Date Received: 10/25/2002 Chain of Custody ID: BB02940 Date Sampled: 10/25/2002 PCB Analysis by EPA 608/8082 MATRIX: OIL GRAB LOCATION: NEC W 86 ST & AMSTERDAM AVE STRUCTURE: MANHOLE 25950 Aroclor 1242 < 1.0 ppm Aroclor 1254 24.8 ppm Aroclor 1248 < 1.0 ppm Aroclor 1260 < 1.0 ppm TOTAL PCB 25 ppm

Account # 12030 is being used for this incident. No measuring device was used to determine the amount of the spill. Source and cause of spill are unknown. No private property affected. No oil filled equipment in the structure. No askarel components involved. Water is standing . there is visual water movement . There is a sewer connection as per conduit plate m-40-d-3. Sump is not verified. No sump pump. Ther are substantial cracks. Access anytime. No dielectric filled feeder in the structure. 2 sludge samples taken from the spill, 1 for id and 1 for pcb . Sample priority E . Chain of custody # bb02940. Cleanup is pending lab results.

CIG L Costa #13880 notified @ 04:24

UPDATE 10/25/02 23:20 hrs ab Sequence Number: 02-10035-001 Date Approved: 10/25/2002 E2 Incident Number: 145726 Date Received: 10/25/2002 Chain of Custody ID: BB02940 Date Sampled: 10/25/2002 Oil Identification Analysis by NYSDOH 310-13 (Hydrocarbon Scan) MATRIX: OIL GRAB LOCATION: NEC W 86 ST & AMSTERDAM AVE STRUCTURE: MANHOLE 25950 FEEDER ID: Analysis indicates the presence of a substance similar to a dielectric fluid.

10/26/02 14:01 M. Melendez # 11285 oUnderground (cleanup) reports that the cleanup was completed 100% at 14:00. There was 1 bag of ppe generated with the spill. the tanker removed 40 gallons of a water/oil mixture. the structure was double washed with slix. The spill tag # 33490 was removed.

UPDATE: 10/10/2003: Underground Planner J. Wilson reported that the manhole was inspected and found to be oil free with all cable ends capped.

Map Identification Number 163



245 WEST 75TH STREET/ NEW

245 WEST 75TH STREET

NEW YORK CITY, NY

Spill Number: 8702852

Close Date: 07/09/1987

TT-Id: 520A-0098-717

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 1705 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

| | | |
|-----------------------------------|------------------------------|-----------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Citizen | Notifier Name: | Notifier Phone: |
| Caller Name: | Caller Agency: | Caller Phone: |
| DEC Investigator: UNASSIGNED | Contact for more spill info: | Contact Person Phone: |

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 07/09/1987 | 07/09/1987 | UNKNOWN | UNKNOWN | NO |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

Caller Remarks:

CHEMICAL ODOR IN APARTMENT HALLWAYS & APARTMENTS.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was

10/10/95: This is additional information about material spilled from the translation of the old spill file: UNKNOWN ODOR.

Map Identification Number 164

APTHORP BUILDING

252 WEST 79TH ST

MANHATTAN, NY

Spill Number: 9512657

Close Date: 01/20/2006

TT-Id: 520A-0092-269

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1705 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------|---|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: MISS ROSS – MGNG CO. – OWNER OF BLDG | Spiller Phone: (212) 580-9500 |
| Notifier Type: Local Agency | Notifier Name: JOANN GREYLAND-AHSER | Notifier Phone: (212) 877-3220 |
| Caller Name: CHANTEL VINSON | Caller Agency: NYC DEP | Caller Phone: (718) 595-6777 |
| DEC Investigator: SXAHMED | Contact for more spill info: JOANN GREYLAND-AHSER | Contact Person Phone: (212) 877-3220 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 01/11/1996 | | OTHER | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

 Caller Remarks:

NOTIFIER STATES THAT THERE IS OIL DRIPPING ONTO HER WINDOW FROM FLOOR ABOVE HER – IT OCCURS DAILY AND IT IS UNKNOWN WHERE IT IS COMING FROM

 DEC Investigator Remarks:

8/15/05 – Haggerty – spoke with Mrs. Ross, property manager, she has no records dating back that far. All other contact info outdated ----site visit

12/19/2005: This is a multi storied building. According to the callers remark, site visit may help to close the spill. (Sadique)

01/20/2006: John Grathwol and I visited the spill location on 01/18/2006 at 11:00am. This building has two other addresses: 2211 Broadway, NY and 390 West End Associates, NY.

Walked around the building. Took photo of vent pipe. Met with Building Asstt Superintendent Mr. Frank Rodriguez. He took us to the basement. Inspected the boiler room and tank area. Huge tank (20,000 gal) encased in concrete. No oil on the floor or in the drain. Took photos. Spill can be closed. (Sadique)

01/20/2006: Spill closed. (Sadique)

Map Identification Number 165 **DRUM RUN** **Spill Number: 0707307** **Close Date: 10/31/2007**
 213 WEST 85TH STREET MANHATTEN, NY TT-Id: 520A-0211-099

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1731 feet to the N

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------|-------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: AZALIA – IN ALLEY WAY | Spiller Phone: (212) 689-1520 |
| Notifier Type: Local Agency | Notifier Name: | Notifier Phone: |
| Caller Name: | Caller Agency: | Caller Phone: |
| DEC Investigator: SFRAHMAN | Contact for more spill info: AZALIA | Contact Person Phone: (212) 689-1520 |

 Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 10/03/2007 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

4 OPEN CONTAINERS FILLED WITH FUEL OIL AND OIL ON ALLEY WAY. FUMES ARE STRONG:

DEC Investigator Remarks:

10/31/07 Drum was not found on 10/30/07.(SR)

Map Identification Number 166

SPILL NUMBER 0311725

Spill Number: 0311725

Close Date: 02/13/2004



159 WEST 71ST ST/BTWN COL

MANHATTAN, NY

TT-Id: 520A-0095-283

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 1745 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: 159 W 71ST ST

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Other
 Caller Name: AZALEA MADDIX
 DEC Investigator: TJDEMEO

Spiller: MICHAEL HEALPBURN
 Notifier Name: ANOTHER CALL CENTER
 Caller Agency: DEP EMERGENCY CALL CENTER
 Contact for more spill info: MICHAEL HEALPBURN

Spiller Phone: (201) 871-4333
 Notifier Phone:
 Caller Phone: (212) 689-1520
 Contact Person Phone: (201) 871-4333

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/18/2004 | | UNKNOWN | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #6 FUEL OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

they recieved from another call center (3-1-1) reporting the spill. No other information was available. Unknown what the spill had spilled on ie; land etc.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was DEMEO 2/13/04 TJD Street spill. Sanatation sanded roadway. Spill closed.

Map Identification Number 167

SPILL NUMBER 9908618

Spill Number: 9908618

Close Date: 02/26/2003



400 WEST END AVE

MANHATTAN, NY

TT-Id: 520A-0092-653

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1755 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Affected Persons
 Caller Name: JIM CAREY
 DEC Investigator: SMSANGES

Spiller: PETER MARTIN - ROSE ASSOCIATES
 Notifier Name: AARON BURKS
 Caller Agency: CASTLE OIL CORPORATION
 Contact for more spill info: PETER MARTIN

Spiller Phone: (212) 362-4034
 Notifier Phone:
 Caller Phone: (718) 579-3414
 Contact Person Phone: (212) 362-4034

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/15/1999 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 10.00 | GALLONS | 10.00 | GALLONS | SOIL |

Caller Remarks:

TANK OVERFILL DUE TO EQUIPMENT FAILURE

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SANGESLAND

Map Identification Number 168

SPILL NUMBER 9712910

Spill Number: 9712910

Close Date: 02/19/1998



WEST 72ND ST & BROADWAY

MANHATTAN, NY

TT-Id: 520A-0101-961

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 1778 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: WEST 72ND ST / BROADWAY
 Revised zip code: 10023

Source of Spill: UNKNOWN
 Notifier Type: Other
 Caller Name: GWENDELYN HAWKINS
 DEC Investigator: KSTANG

Spiller: UNKNOWN
 Notifier Name: DISP #344
 Caller Agency: DEP
 Contact for more spill info:

Spiller Phone:
 Notifier Phone: (212) 570-4261
 Caller Phone: (718) 595-6700
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 02/19/1998 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|---|----------------|------------------|---------|--------------------|---------|----------------------|
| The following material(s) was dropped or revised by the NYS DEC. Call Toxics Targeting for more information | | | | | | |
| #5 FUEL OIL | PETROLEUM | 50.00 | GALLONS | 50.00 | GALLONS | |

Caller Remarks:

CALLER REPORTING SPILL AT ABOVE INTERSECTION. PPRODUCT WAS CONTAINED AND CLEANED.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TANG

Map Identification Number 169 **APT BLDG**
 342 WEST END AVE

MANHATTAN, NY

Spill Number: 0511868

Close Date: 01/24/2006
 TT-Id: 520A-0095-766

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1778 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING
 Notifier Type: Other
 Caller Name: MARGRET GENTLE
 DEC Investigator: HRPATEL

Spiller: LAWRENCE ZOMBEK – APT BLDG
 Notifier Name: ROBERT DITACCO
 Caller Agency: STUYVESANT FUEL
 Contact for more spill info: LAWRENCE ZOMBEK

Spiller Phone: (914) 715-7485
 Notifier Phone: (718) 665-5700
 Caller Phone: (718) 665-5700
 Contact Person Phone: (914) 715-7485

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/13/2006 | | OTHER | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 13.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

Caller reports her driver delivered 13 gallons last night. He did not hear the vent alarm. Unknown to the driver the pipe to the tank was disconnected. Apt is switching over to gas. Spill was onto dirt floor in the basement. No company has been contacted for cleanup. Super to the building is Jose 917.642.6650.

DEC Investigator Remarks:

1/17/06–Vought–Off hours duty responder. Vought called Margaret Gentile and as per her super disconnected fill pipe and owner ordered delivery. Approximately 13 gallons of fuel was delivered and no whistle was heard by delivery man and he then stopped delivery. Serviceman from Stuyvesant Fuel found disconnected fill box. Vought called Zombeck and left message to return call to DEC. Vought received call from Zombeck and oil tanks were being removed as the building was switching to natural gas. Con Edison’s subcontractor covered fill line with steel plates and as they were removing the plates damaged the fill box. Cleanup of residence being performed by Con Edison. Soil being excavated in basement (7’x9’ excavation at time of call). AL Eastmond hired to clean up spill. Vought called Zombeck for update and left message to return call.

1/19/06–Hiralkumar Patel. Called Mr. Zombek and he is going to call me back. I have sent out CSL to Mr. Zombek

I received call from Mr. Zombek. As per his information, the fill pipe was never disconnected from tank. this facility had two

tanks of capacity 275 gal. and as they are moving heating system from oil to gas system, one tank was already taken out last month by Al Eastmond. Bill Lightel (212-722-5506) at Calaray Gas Heat Corp. is the contractor who is handling this process of transferring from oil to gas. Bill has contacted Con Edison for gas system. and as per Mr. Zombek when crew from Con Edison was working on site, they had damaged the fill line at elbow. and it was cracked and broken and was leaking at elbow. as Con Edison was working on site, they had placed one plate over the fill port because they are digging nearby the fillport to get gas line in the house.

The oil company delivers oil every week and on the day of incident, they found that the fill port was covered and thought the fill line was disconnected and went back. Later on, the homeowner called the oil company for oil delivery. on 13th Jan., oil company had delivered 13 gal. of oil and the driver didn't check the gauge. As per the owner, when he went down in basement on incident day, he found elbow broken and there is 15 inch on gauge. He repaired it himself. there is no leak at present. and when he start removing absorbent and oil waste from basement floor, he found that the so called soil was dirt only. and the floor beneath that dirt was in good condition. there are no cracks or sewer port nearby. then he and his friend moved out all dirt from floor in two drums. and waiting for a guy from Empire Environmental to pick up for disposal. as per homeowner's knowledge, up until now no one is hired to cleanup the site or to pick up waste. he is waiting to hear from Calray Corp.

Calray Gas Heat Corp 211 East 117th Street Manhattan, NY 212-722-5506

Mr. Zombek is going to send me photographs of basement.

1/20/06-Hiralkumar Patel.

Left message for Margret at Stuyvesant Fuel. Spoke with Bill at Calray and he is going to call me back. Received call from Bill, and as per him, Con Edison had damaged fill line during work. but the spill was too little probably less than 3 gal. and its on concrete floor, and its all cleaned up and stored in barrel and waiting to get disposed.

Spoke with Ms. Margret Gentle at Stuyvesant fuel. the homeowner asked for delivery on 13th of Jan. and driver from fuel company went there at around 10 at night. Driver had started delivery oil, but he didn't hear vent alarm so he stop after delivering 13 gal of oil. on next day owner called fuel company to deliver oil. but before delivering oil, a man from fuel company names Robert Ditaco went out there to check vent alarm system and he found that the fill pipe was disconnected from tank. As per Margret, the super of the building was ready to do cleanup. the number for super on report is wrong and the person who was on the phone not ready to talk anything regarding case.

Talked with Mr. Zombek at 2:40PM. there are 10 tenants living in this building. he is taking pictures right now and going to send me within an hour. Make appointment for visit on monday after reviewing photographs and calling him on monday 23rd Jan.

1/23/06-Hiralkumar Patel. Received email from Mr. Zombek containing pictures of basement. C:Hiralkumar West End Ave

----- Sir the floor looks beige in that absorb all was sprinkled on it. Eastmond came to arrange removal of 13 bags. As I type, Con Edison is completing installation of gas line.

Lawrence Zombek President Orchard Management Inc. 249 West 76 St.#A New York, NY 10023 212-496-7387 phone 914-715-7485
cell/txt larryz8@aol.com -----

Spoke with Mr. Zombek. there is no complaints from tenants about oil vapor. Con Edison has finished intallation of gas line and they probably start on gas from Wed. 25th Jan.,2006, once the oil tank will run out of oil. Mr. Zombek doesn't know the name of the person from Eastmond who picked up waste bags from site. He was hired by Calray. Probably Eastmond will remove this second tank from site once they start on gas. Left message for Mr. Bill Lightel at Calray.

Spoke with Mr. Izak at Eastmond. As he know, an associate named Mr. Rene Lewis (Cell: 917-299-7257) had went to Zombek's house to pick up contaminated waste. Left message for Mr. Lewis at 2:30PM.

1/24/06-Hiralkumar Patel. Spoke with Rene Lewis at Eastmond. as per him, its a solid concrete, having no cracks or sewer ports on floor. when he reached on site, there were 15 bags of debris ready to picked up. Little vapor smell in basement due to these bags. the fill line was cracked and less than 5 gal of oil on floor. floor looks good now and as per him, there is no subsurface contamination as the concrete floor was in good condition.

No further action required letter sent out to Mr. Zombek. Case Closed.

Map Identification Number 170

CENTRAL PARK/THE LAKE

Spill Number: 9913687

Close Date: 03/06/2000

 59TH ST/110TH ST NEW YORK, NY

TT-Id: 520A-0101-956

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING - LARGE SITE
 Approximate distance from property: 1781 feet to the SSE

ADDRESS CHANGE INFORMATION

Revised street: CENTRAL PARK LAKE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN
 Notifier Type: Local Agency
 Caller Name: NELSON NICHOLAS
 DEC Investigator: MCTIBBE

Spiller: UNKNOWN
 Notifier Name: SAME
 Caller Agency: NYC PARKS DEPT
 Contact for more spill info: NELSON NICHOLAS

Spiller Phone:
 Notifier Phone:
 Caller Phone: (212) 628-1036 ext. 2
 Contact Person Phone: (212) 628-1036 ext. 2

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 03/04/2000 | | OTHER | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| UNKNOWN MATERIAL | OTHER | 0 | GALLONS | 0 | GALLONS | SURFACE WATER |

Caller Remarks:

UNKNOWN SHEEN DISCOVERED AT ABOVE LOCATION. ABSORBENT BOOMS HAVE BEEN PLACED IN WATER. MATERIAL MAYBE COMMING FROM A DEP CATCH BASIN ON SIDE OF THE 79TH ST TRANVERSE RD. NO CALL BACK REQUESTED. CALLER BELIEVES MATERIAL IS ROAD GRIME AND GROUND WATER.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TIBBE

Map Identification Number 171 **CENTRAL PARK LAKE** **Spill Number: 9912733** **Close Date: 02/09/2000**
 WEST 79TH STREET+CENTRAL MANHATTAN, NY TT-Id: 520A-0101-955

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING – LARGE SITE
 Approximate distance from property: 1781 feet to the SSE

ADDRESS CHANGE INFORMATION

Revised street: CENTRAL PARK LAKE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|---|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Federal Government | Notifier Name: SAME | Notifier Phone: |
| Caller Name: GWEN HAWKINS | Caller Agency: DEP | Caller Phone: (718) 595-6777 |
| DEC Investigator: O'DOWD | Contact for more spill info: GWEN HAWKINS | Contact Person Phone: (718) 595-6777 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/08/2000 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|----------------------------|--------------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN HAZARDOUS MATERIAL | HAZARDOUS MATERIAL | 0 | GALLONS | 0 | GALLONS | SURFACE WATER |

Caller Remarks:

they have a sheen sitting on the water.unknown how it happened

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

2/8/00 4:20 PM SPOKE TO ELIE/DEP X4653. HE IS TRYING TO FIND OUT BETTER INFORMATION ABOUT IT. TOLD HIM IF IT'S A FISH KILL LET US KNOW OR ELSE JUST COORDINATE WITH NYC PARKS DEPT.

Map Identification Number 172 **CENTRAL PARK LAKE, WEST** **Spill Number: 9106422** **Close Date: 09/14/1991**
 CENTRAL PARK LAKE, WEST NYC, NY TT-Id: 520A-0101-954

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING – LARGE SITE
 Approximate distance from property: 1781 feet to the SSE

ADDRESS CHANGE INFORMATION

Revised street: CENTRAL PARK LAKE
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: NYC PARKS DEPT Spiller Phone:
 Notifier Type: Citizen Notifier Name: Notifier Phone:
 Caller Name: JOSEPH COPLAN Caller Agency: ENV RECOVERY Caller Phone: (212) 255-9604
 DEC Investigator: O'DOWD Contact for more spill info: Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 09/12/1991 | 09/14/1991 | UNKNOWN | UNKNOWN | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIESEL | PETROLEUM | 250.00 | GALLONS | 0.00 | GALLONS | SURFACE WATER |

Caller Remarks:

DEC ON SCENE. CLEAN UP EFFORTS MADE ON EAST SIDE; MORE ON WEST.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 173 **DRUM RUN** **Spill Number: 0707272** **Close Date: 10/31/2007**
 119 WEST 87TH STREET MANHATTEN, NY TT-Id: 520A-0211-096

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1791 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER Spiller: MIKE WARDEN Spiller Phone: (646) 584-5800
 Notifier Type: Other Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: Caller Phone:
 DEC Investigator: SFRAHMAN Contact for more spill info: MIKE WARDEN Contact Person Phone: (646) 584-5800

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/02/2007 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|--------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| WASTE OIL/USED OIL | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

ON SIDEWALK NEEDS TO BE PICKED UP! 55 GALLON

DEC Investigator Remarks:

add to next drum run 10/31/07 Drum was pumped out on 10/30/07 and NYC sanitation was notified to pick up the empty drum.(SR)

Map Identification Number 174 **BUILD ING** **Spill Number: 0507825** **Close Date: 10/07/2005**
 23 WEST 87TH STREET NEW YORK, NY TT-Id: 520A-0098-769

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1793 feet to the NE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER Spiller: BARRY – BUILDING Spiller Phone: (212) 675-0593
 Notifier Type: Other Notifier Name: EDDIE FELICIANO Notifier Phone: (718) 665-5700
 Caller Name: EDDIE FELICIANO Caller Agency: STUYVESANT FUEL Caller Phone: (718) 665-5700
 DEC Investigator: SMSANGES Contact for more spill info: BARRY Contact Person Phone: (212) 675-0593

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
|------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 09/29/2005 | | UNKNOWN | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

LOOKS LIKE IT MAY BE COMING FROM AN LINE UNDER CEMENT; IT IS CONTAINED AND STILL INVESTIGATING;

DEC Investigator Remarks:

Sangesland spoke to Eddie Feliciano at Stuyvesant Fuel. He said there was a problem in the basement floor with a gate valve that seems to be leaking. This valve is between the tank and the burner. There appears to be some contamination in the soil around this valve. Unknown the extent of the problem.

Property manager Barry Zonan (212-675-0593) stated that Petroleum Tank Cleaners was on their way to the building right now to take care of any emergency work which may be needed (Isolate the tank?) They will return later this week to conduct whatever remediation work is needed.

10/7/2005 Sangesland spoke to Ray Lara at PTC. He replaced the valves and lines on two 275 gal aboveground tanks in the basement. Slight staining on the cement under the tanks. PTC told the property manager that the two tanks are old and should be replaced. Unknown if this work will be done.

Spill event closed.

Map Identification Number 175



MANHOLE 27538

W 85TH ST/BROADWAY

MANHATTAN, NY

Spill Number: 9814968

Close Date: 04/01/1999

TT-Id: 520A-0091-009

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 1827 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

| | | |
|----------------------------|---|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Other | Notifier Name: MR CURTIS | Notifier Phone: (212) 338-3352 |
| Caller Name: JOE DEVOTI | Caller Agency: CON EDISON | Caller Phone: (212) 580-6763 |
| DEC Investigator: CAENGELH | Contact for more spill info: JOE DEVOTI | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/17/1999 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| UNKNOWN PETROLEUM | PETROLEUM | 2.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

2 GAL OF OIL ON 110 GAL OF WQATER CONTAINED IN THE MANHOLE. CON ED 123-665. CLEAN UP PENDING LAB RESULTS.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was ENGELHARDT Con ed e2mis notes:

Approx 2 qts of unknown oil ontop of approx 110 gal of water. PCB<1ppm

Map Identification Number 176 **2350 BROADWAY**
 2350 BROADWAY

Spill Number: 9814099 **Close Date: 04/20/2000**
 MANHATTAN, NY TT-Id: 520A-0101-350

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 1830 feet to the NNW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|----------------------------|---|--------------------------------------|
| Source of Spill: UNKNOWN | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Other | Notifier Name: MR FARO | Notifier Phone: |
| Caller Name: JOE DEVOTI | Caller Agency: CON EDISON | Caller Phone: (212) 580-6763 |
| DEC Investigator: JHOCONNE | Contact for more spill info: JOE DEVOTI | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 02/23/1999 | | UNKNOWN | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM | 0 | GALLONS | 0 | GALLONS | SOIL |

Caller Remarks:

during digging in the street crew found contaminated soil

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL DEC Inspector notes:

2/24/99: Dave Perez ERT: Possible 3rd party spill, gas crew digging for gas main repair found contamination. Contaminated with oily substance. Requested Perez to contact Astoria lab, collect sample for oil. ID will pass along to primary for 2/23.

2/26/98: Bill Wallace e2mis has not been updated. Will check with chem lab for results of oil id and get back to me. He called back with PCB results: <1ppm

Excavation is still open. Samples for PCB, TCLP, Oil Id and tph are schedule for Monday. (Note: we did full sampling because we had to bring back some of the third party dirt back to our workout location pending analysis for disposal.)

Map Identification Number 177 **W79TH ST / WEST END AVE**
 W79TH ST / WEST END AVE

MANHATTAN, NY

Spill Number: 9808972

Close Date: 05/03/2007
 TT-Id: 520A-0097-825

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 1851 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: W 79TH ST / WEST END AVE

Revised zip code: NO CHANGE

| | | |
|----------------------------------|------------------------------|------------------------------|
| Source of Spill: UNKNOWN | Spiller: CON ED | Spiller Phone: |
| Notifier Type: Responsible Party | Notifier Name: HANNAR | Notifier Phone: |
| Caller Name: STEVE ROMERO | Caller Agency: CON EDISON | Caller Phone: (212) 580-6763 |
| DEC Investigator: JHOCONNE | Contact for more spill info: | Contact Person Phone: |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/19/1998 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| | | Units | | Units | | |
| DIELECTRIC FLUID | PETROLEUM | 350.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

DISCREPANCY OF 350 GAL ON FEEDER M52 AT PUMP HOUSE #2 – CASE 120616 SPILL COULD ALSO AFFECT REGION 3 – REGION 2 REQUEST THEY BE ADVISED. FOUND DROPLETS OF OIL IN WATER IN A FILLER ON 80TH AND WEST END AVE. IN NY. UPDATE 10/19/98 AT 2037 – LOOKING FOR A LEAK ON M54 AND IT WAS FOUND 50 TO 60 GALLONS IN THE MANHOLE.

DEC Investigator Remarks:

05/03/07 – See e-docs for Con Ed report detailing cleanup and closure. Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL

10/19/98, 2104 hrs: Mark Tibbe (off-hours responder) receives update from dispatcher that leak was found in manhole and contained 50 to 60 gallons. This turned out to be wrong. At 2237 hrs. finally got through to Cone Ed, and was given this update: there were 2 leaks:

- (1) major leak at 79th Street and West End Avenue which is being excavated
- (2) minor leak (<1 gph) at 155th St & St. Nicholas, which he had no further info on.

The feeder at that time was still active. (MCT)

10/19/98, 1459 hrs: Spoke with John Hegerty (Con Ed Transmission Ops). Feeder goes from W. 49th St to Sprain Brook substations. They are checking manholes now, and PFT van is out. Feeder run is 17 miles. Manhole survey (80 MHs) should be done on midnight shift. Line will not be depressurized. Leak rate right now is 15 gph (350 gallons since yesterday). They are evaluating the system to see if they can take it out of service and reduce pressure. (CAE)

10/19/98: at request of Randy Austin, I contacted Region 3 (Pete Doshna) and left him a message, since leak may be found in Reg. 3. (JHO)

10/20/98: Leak found at 79th St/West End Ave – clamp is on, permanent repairs will be done today. Met at site with Gerry Materazzo (TO) – leak is on southwest corner of 79th/WE Ave. Excavation is about 6' x 12' x 2.5' deep, and about 4' deep under leaking section. Soil at bottom of excavation under feeder smells of dielectric fluid. Told Gerry to guzzle as much as possible and sample and analyze for df. Sample to be taken from bottom of excavation. Gerry to guzzle tomorrow and page me to tell me when they will do sampling.

Clean Harbors is on scene with a 6000 gallon vac truck. Oil entering sewer at same corner. Have removed about 1000 gallons of oily water from sewer. Sorbent boom in sewer trying to plug oil so it can be vac'ed out. Called ERT Bill Wallace – he said DEP was notified of oil in sewer. (CAE)

APPENDIX B SITE NO. 28. TRANSFERRED FROM ENGELHARDT TO O'CONNELL.

~~~~~ e2mis no. 120-616:

19-OCT-1998 @ 13:00 STATION OPERATOR REPORTS DAILY PUMPHOUSE READINGS INDICATES A DISCREPANCY OF 350 GAL. FROM THE W.49TH STREET PUMPHOUSE #2 FEEDER M52.

At 12:30 conference call approx 15gph leak was declared on Fdr M52. To crews brought in from field. PFT van mobilized to 125th & B'Way to go South and TO crew will provide support. TO crews also checking Manhattan manholes. CGO crews to check Bronx and Westchester manholes. Fdr cannot be removed from service since Feeders C3403, A2253 and Y50 are OOS. Clean Harbors notified to respond with cleanup crew and standby at West End Ave and 7th St. VNR notified to standby with barhole and excavation crew at their yard at 124th St and 3rd Ave, Manhattan. 17:00 oil found in manhole 61738 on 155th St and St. Nicholas Ave. Samples taken to PFT van for analysis and to Chem lab for PCB and benzene. Clean Harbors 2nd tanker on location and sent up to MH61738 to pump and investigate manhole. 18:25 possible oil droplets found in sewer at West End Ave and 80th St. Sewer running north. Clean Harbors crew instructed to put oil pads/baloneyes in sewers. 18:50 Sewer checked at 79th and fluid found in sewer. Clean Harbors to install pads/baloneyes in this sewer also. Chem lab reports 98-11259 (mh61738) 3 ppm PCBs. Excavation to be dug at 79th St and West End Ave. Contractor excavated and found leak site at 22:30 10/19/98. At 23:30 temporary Plidco clamp was installed and holding on 5 line at leak location. Leak was on bottom of 5 .

Meeting with Chris Englehardt (DEC) and MEG geologist on location at 12 noon 10/20/98. Remove another 1 – 2 feet of soil after repair is done. MEG to take samples for dielectric fluid in bottom of trench and write report. Trench can be backfilled at that point. on 10/22/98 additional excavation was completed and a recovery well was installed by MEG at the leak location. Samples could not be taken from soil at bottom of trench since the bottom of the trench was rock. Clean Harbors removed 750 gallons of oil/water from sewers and leak location and 7 cubic yards of material from excavation. Site was backfilled and restored. CSD reports that 300 gallons was lost from leak site.

On 12/3/98, 12/8/98, 12/16/98, 12/31/98, 4/1/99, 8/3/99, 8/12/99, 8/20/99, 8/27/99, 9/1/99, 9/10/99, 9/16/99, 9/24/99, 9/30/99 and 10/20/99 MEG removed 1 cubic yard of absorbents and boom from adjacent sewes. On 3/24/99 MEG submitted report to Con Ed for cleanup and well activities.

On November 11, 1998 Miller Environmental Group pumped out 4 gallons of oil/wate out of recovery well.

**Map Identification Number 178** **WEST END AV&W 79TH ST**  
 WEST END AV&W 79TH ST

MANHATTAN, NY

**Spill Number: 9714476**

**Close Date: 03/30/1998**  
 TT-Id: 520A-0090-154

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 1851 feet to the WNW

**ADDRESS CHANGE INFORMATION**

Revised street: WEST END AV/W 79TH ST  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Local Agency  
 Caller Name: KAREN STEVENSON  
 DEC Investigator: CAENGELH

Spiller: UNKNOWN  
 Notifier Name: FF TOMASZEWSI  
 Caller Agency: DEP  
 Contact for more spill info: FF TOMASEWSI

Spiller Phone:  
 Notifier Phone: (917) 769-0484  
 Caller Phone: (718) 595-6777  
 Contact Person Phone: (917) 769-0484

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/29/1998 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| GASOLINE         | PETROLEUM      | 5.00             | GALLONS | 5.00               | GALLONS | SEWER                |

**Caller Remarks:**

CALLER STATED THE SPILL WAS BEING CLEANED UP BY FDNY HAZ-MAT

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was ENGELHARDT 3/29/98 Colonie reported that 1 gal got to sewer.

**Map Identification Number 179** **MANHOLE 61728**  
 WEST END AV/W 77TH ST

MANHATTAN, NY

**Spill Number: 0303245**

**Close Date: 10/12/2004**  
 TT-Id: 520A-0102-191

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 1851 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: W 77TH ST / WEST END AVE  
 Revised zip code: 10024

|                            |                                            |                                      |
|----------------------------|--------------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN   | Spiller: UNKNOWN                           | Spiller Phone:                       |
| Notifier Type: Other       | Notifier Name:                             | Notifier Phone:                      |
| Caller Name: MARK SCHLAGEL | Caller Agency: CON EDISON                  | Caller Phone: (212) 580-6763         |
| DEC Investigator: AERODRIG | Contact for more spill info: MARK SCHLAGEL | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 06/26/2003 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                   |                | Units            |         | Units              |         |                      |
| UNKNOWN PETROLEUM | PETROLEUM      | 10.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

FEEDER M51 INVOLVED – CON ED 148916 – SAMPLE TAKEN CLEAN UP PENDING RESULTS

DEC Investigator Remarks:

E2MIS 148916

On 6/26 @ 19:43, D. Huzior # 13107 of Transmission Ops reported to me that @ 19:20 HRS he discovered approx 10 gal unknown oil and 500 gal water while checking for oil leaks in the M51 Feeder run on the 345 KV in M-61728. The source and the cause are both unknown. The spill is in the concrete structure. Two samples for PCB and ID will bve taken and the Chain of Custody # is pending. No initial cleanup action will be taken at this time.

6/27 @ 01:06 LSN # 03-05299-001 @ 23:39 on 6/26 Total PCB < 1.0 ppm

SPILL CLEANUP CHECKLIST Cause of spill: UNKNOWN, AFTER CLEANING FOUND MODERATE CORROSION IN SEVERAL AREAS Affected by spill: MANHOLE FLOOR 18' X 8' Cleanup Activities: REMOVED/RECOVERED LIQUID/SOLIDS, REMOVED VISIBLE TRACES OF OIL, WASHED SATAINED AREAS Contractor: CLEAN HARBORS Cleanup completed: 06/27/03 @ 14:30 hrs FOUND MODERATE CORROSION IN SEVERAL AREAS ON BOTH FEEDERS & 5 OIL LINES IN MANHOLE. MISSING COAL TAR WRAP NEED TO ABATE ALL COAL TAR AND RETAPE. THE WORK AND TIME SHEET IS PART OF THE M-51 LEAK WE USED THE CREW THAT WAS ON STANDBY. CLEANUP COMPLETED.

**Map Identification Number 180** **MANHOLE 61728**  
 WESTEND AVE/W 77TH ST

MANHATTAN, NY

**Spill Number: 0103043**

**Close Date: 07/20/2001**  
 TT-Id: 520A-0102-192

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 1851 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: W 77TH ST / WEST END AVE  
 Revised zip code: 10024

Source of Spill: UNKNOWN  
 Notifier Type: Affected Persons  
 Caller Name: SEAN MCKEEVER  
 DEC Investigator: KMFOLEY

Spiller: UNKNOWN – Unknown  
 Notifier Name: RON VESELI  
 Caller Agency: CON ED  
 Contact for more spill info: CALLER

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (212) 580-6763  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 06/19/2001 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 15.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

CALLER REPORTING A SPILL OF UNK OIL FROM UNK SOURCE CONED#137742 SAMPLES TAKEN CLEAN UP PENDING LAB RESULTS ON15 GAL OF WATER NO SEWERS OR WATERWAYS EFFECTED NO CALLBACK

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was FOLEY CON ED E2MIS REPORT 6-19-01

Central Gas Operations were on a periodic potential survey and discovered 15gals of an unknown oil on top of 15gals. of water inside MH -61728. Sample taken and cleanup pending.

Clean harbors called and treated MH as 50-499ppm since PCB results were unknown. Chem lab tok samples. Removed 2727 klg. of material from MH under manifest MAM677568. Chem lab reported 01-06674 <1.0ppm PCB after cleanup was completed. Cleanup completed 6-19-01 at 20:00hrs.

**Map Identification Number 181**

**SPILL NUMBER 0011976**

**Spill Number: 0011976**

**Close Date: 06/23/2003**

 W 71S ST / CENTRAL PARK W

MANHATTAN, NY

TT-Id: 520A-0095-235

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 1856 feet to the S

**ADDRESS CHANGE INFORMATION**

Revised street: W 71ST ST / CENTRAL PARK W  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Spiller: CON EDISON

Spiller Phone: (212) 580-6763

Notifier Type: Responsible Party

Notifier Name: MORAN

Notifier Phone:

Caller Name: ANTHONY NATALLI

Caller Agency: CON ED

Caller Phone: (212) 580-6763

DEC Investigator: OKWUOHA

Contact for more spill info:

Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/07/2001 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| CABLE OIL        | PETROLEUM      | 1.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

8 ounces in manhole - case #135414 - sample to be taken

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

**The following DEC Investigator Remarks were available prior to 1/1/2002:**

E2MIS Note 2/7/01: 8 oz of cable oil leaked onto floor. No smoke, no environmental impact, no private property affected. No sewers or waterways affected.

**Map Identification Number 182** **IN APARTMENT**  
 114 W 88TH ST – APT 1

MANHATTAN, NY

**Spill Number: 9710729**

**Close Date: 03/23/1999**  
 TT-Id: 520A-0098-009

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1890 feet to the NNE

**ADDRESS CHANGE INFORMATION**

Revised street: 114 W 88TH ST  
 Revised zip code: NO CHANGE

|                                        |                                                  |                                      |
|----------------------------------------|--------------------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN               | Spiller: UNKNOWN                                 | Spiller Phone:                       |
| Notifier Type: Citizen                 | Notifier Name: ELIZABETH RHALL/STEVEN HA         | Notifier Phone: (212) 721-2903       |
| Caller Name: ELIZABETH RHALL/STEVEN HA | Caller Agency: RTT / RESIDENT                    | Caller Phone: (212) 721-2903         |
| DEC Investigator: MCTIBBE              | Contact for more spill info: ELIZABETH OR STEVEN | Contact Person Phone: (212) 721-2903 |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 11/08/1997 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

**Caller Remarks:**

caller have a strong of fuel in her apt – at times it is stronger and make the caller sick it affect the baby's room also  
 caller has spoken with randy austic dec 718-482-4933 ext 7100

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIBBE NO ODOR FOUND. POSSIBLE OLDER SPILL FROM FILL. ALL POSSIBLE OPENINGS FROM OUTSIDE WERE SEALED. NO MORE ODORS.

OIL FURNACE REMOVED DURING RENOVATIONS. OIL ODOR STRONGEST ON WESTERN WALL. ALWAYS THERE BUT SOMETIMES STRONG. PRIMARILY IN FRONT ROOM. ADJACENT BROWNSTONE HAS ELCTRIC HEAT.

OWNER – DORIT SHAHAR, 116 WEST 88TH STREET, NY, NY 10024 BLDG MANAGER FOR 114 AND 116 – CHIP LOGAN 212-769-3565. OIL TANK PUMPED OUT BY CONTRACTOR LARRY FLYNN, BEEPER 800-413-4617.

**Map Identification Number 183**     **2071 BROADWAY**  
     2071 BROADWAY

MANHATTAN, NY

**Spill Number: 9712912**

**Close Date: 02/19/1998**  
 TT-Id: 520A-0097-822

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1902 feet to the WSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: TANK TRUCK  
 Notifier Type: Fire Department  
 Caller Name: FF SOLLIN  
 DEC Investigator: KSTANG

Spiller: ANTHONY WALLACE – CENTURY STAR  
 Notifier Name: ANTHONY WALLACE  
 Caller Agency: FDNY  
 Contact for more spill info: DENNIS

Spiller Phone: (718) 991-2600  
 Notifier Phone: (718) 991-2600  
 Caller Phone: (917) 769-0483  
 Contact Person Phone: (212) 787-7991

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 02/19/1998 |                     | OTHER          | NO                      | NO                  |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

Caller Remarks:

CALLER REPORTING THAT WHEN NOTIFIER FILLED TANK, THE GATE INSIDE TANK WAS CLOSED CAUSING PRODUCT TO BACK UP AND SPILL ONTO GROUND.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TANG CALLED CENTURY STAR, CLEAN-UP CONTRACTOR, TYREE, WAS DISPATCHED TO CLEAN UP THE SPILL.

**Map Identification Number 184**     **101 CENTRAL PARK WEST**  
     101 CENTRAL PARK WEST

MANHATTAN, NY

**Spill Number: 9002095**

**Close Date: 02/27/2003**  
 TT-Id: 520A-0095-279

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1910 feet to the SSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                        |                              |                              |
|----------------------------------------|------------------------------|------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: SAME                | Spiller Phone:               |
| Notifier Type: Other                   | Notifier Name:               | Notifier Phone:              |
| Caller Name: TONY SIMONE               | Caller Agency: A L EASTMOND  | Caller Phone: (212) 378-3000 |
| DEC Investigator: TOMASELLO            | Contact for more spill info: | Contact Person Phone:        |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 05/23/1990 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #6 FUEL OIL      | PETROLEUM      | 300.00           | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

20K ABOVEGROUND TANK IN BASEMENT- OWNER CONTRACTED W/ABC TANK TO CLEAN TANK OWNER DISCOVERED PRODUCT LOSS A.L. EASTMOND TO PUMP AND REPAIR.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

**The following DEC Investigator Remarks were available prior to 1/1/2002:**

12/23/96 WAS ASSIGNED TO FINGER; RE-ASSIGNED TO TOMASELLO. SMM. SITE ASSESSMENT TO BE SUBMITTED 12/23/96.

**Map Identification Number 185**    **6 BLOCK AREA**  
 W 71ST / BROADWAY

MANHATTAN, NY

**Spill Number: 0503314**

**Close Date: 06/20/2005**  
 TT-Id: 520A-0101-888

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 1915 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: W 71ST ST / BROADWAY  
 Revised zip code: NO CHANGE

|                                  |                                  |                                |
|----------------------------------|----------------------------------|--------------------------------|
| Source of Spill: UNKNOWN         | Spiller: UNKNOWN                 | Spiller Phone:                 |
| Notifier Type: Police Department | Notifier Name: JOHN MLEKUSCH     | Notifier Phone: (646) 610-5580 |
| Caller Name: JOHN MLEKUSCH       | Caller Agency: NYPD HEADQUARTERS | Caller Phone: (646) 610-5580   |
| DEC Investigator: JBVOUGHT       | Contact for more spill info:     | Contact Person Phone:          |

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 06/18/2005 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |
| COOKING OIL      | OTHER          | 0                | GALLONS | 0                  | GALLONS | IMPERVIOUS SURFACE   |

Caller Remarks:

CALLER REPORTS A SIX BLOCK LONG AREA STARTING AT WEST 72ND AND BROADWAY AND ENDS AT WEST 66TH AND BROADWAY. UNKNOWN SPILLER. EPA IS ENROUTE. NO CLEANUP COMPANY HAS BEEN CONTACTED AS OF YET.

DEC Investigator Remarks:

6/20/05-Vought-Spill reported at #2 fuel oil. Vought responded to spill and spill material was cooking oil. Source of spill was unknown as spill was only one street and did not originate from building. NYDOS on street applying sand at time of DEC arrival. EPA non on route and not onscene. As per NYPD Stallone EPA was NOT contacted. No sewers or drains affected. NYCDEP was onscene but left prior to DEC arrival. Spill closed by Vought.

Map Identification Number 186



SPILL NUMBER 0209914

425 WEST END AVE

MANHATTAN, NY

Spill Number: 0209914

Close Date: 02/25/2003

TT-Id: 520A-0091-390

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1927 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Citizen  
 Caller Name: MARIA PASCAL  
 DEC Investigator: SMSANGES

Spiller: UNKNOWN  
 Notifier Name:  
 Caller Agency: CITIZEN  
 Contact for more spill info: CALLER

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (212) 874-1931  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 12/31/2002 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

caller see's oil on ground ifo house. poss from delivery to school next door.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SANGESLAND CALLED MARIA PASCAL (10.17 AM), WHO CONFIRMED THAT SPILL WAS DUE TO AN OVER-FILL TO HER NEIGHBOR'S OIL TANK. NEIGHBOR'S ADDRESS IS 433 WEST END AVENUE, VIZ A SCHOOL OUT OF SESSION UNTIL 1/6/03. CALLED SUPER FOR SCHOOL(917 939-7207), WHO CONFIRMED THAT SPILL IS ABOUT 10 GALLONS OF HEATING OIL. NO SOIL OR WATER WAS IMPACTED. FERRANTINO FUEL CAUSED THE SPILL AND THEY ARE DOING THE CLEAN-UP.

E.R.

CALLED SUPER (EDDIE AYALA) AT 2.02 PM, WHO CONFIRMED THAT CLEAN-UP IS COMPLETED SATISFACTORLY. THE CLEAN-UP WAS WITNESSED BY THE NYC-DEP.

CALLED MARIA PASCAL (2.14 PM) WHO CONFIRMED THAT CLEAN-UP IS COMPLETED TO HER SATISFACTION.

E.R. DISCUSSED WITH STEVE, WHO RECOMMENDS CLOSURE.

1/02/2003-Vought-See spill #209976 at same location. Spill #0209976 closed and referred to this spill. Vought spoke with Benny Rosin who explained above situation regarding overfill by Farrantino Oil. Spill came out of vent due to broken petrometer.

Oil came out of vent and splashed on sides of both 425 and 433 West End Avenue. Spill entered window box of basement apartment of 425 West End Ave (occupied by Maria Pascal). Window box was initially cleaned using speedy dry. Vought called Farrantino Oil (718-832-6700) and spoke with Dennis Goldstein who is immediately sending out crew. Window box and walls will need to be powerwashed. Goldstein told by Vought that a work invoice will needed to be faxed to NYSDEC for spill closure. Goldstein and Rosen stated that basements of both residences were inspected and no oil was found. According to Rosin the window box has no cracks in the concrete and also contains a drain at the bottom. Duty Desk also received message from Maria Pascal. Vought called Maria Pascal and left message that cleanup crew was on way.

**Map Identification Number 187** **355 WEST END AVE**  
 355 WEST END AVE

NEW YORK, NY

**Spill Number: 9513285**

**Close Date: 01/23/1996**  
 TT-Id: 520A-0092-275

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1932 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Other  
 Caller Name: PETER BULLA  
 DEC Investigator: GUTIERREZ

Spiller: SASSOON SHAHMOON  
 Notifier Name: SASSOON SHAHMOON  
 Caller Agency: PETRO COMMANDER  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone: (212) 724-7265  
 Caller Phone: (718) 545-4500  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/22/1996 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 1.00             | GALLONS | 1.00               | GALLONS | SOIL                 |

**Caller Remarks:**

1 cup spilled from unknown source onto basement floor – spill cleaned up – unknown what caused it

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 188** **389 WEST END AVENUE**  
 389 WEST END AVENUE

MANHATTAN, NY

**Spill Number: 0306271**

**Close Date: 09/16/2003**  
 TT-Id: 520A-0101-353

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1941 feet to the WNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: PAULA WHITE – 389 WEST END AVENUE Spiller Phone: (212) 580-4777  
 Notifier Type: Affected Persons Notifier Name: PAULA WHITE Notifier Phone: (212) 580-4777  
 Caller Name: PAULA WHITE Caller Agency: RESIDENT Caller Phone: (212) 580-4777  
 DEC Investigator: MXTIPPLE Contact for more spill info: PAULA WHITE Contact Person Phone: (212) 580-4777

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 09/13/2003 |                     | UNKNOWN        | YES                     |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                   |                | Units            |         | Units              |         |                      |
| UNKNOWN PETROLEUM | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

OIL COMING IN FROM THE BASEMENT

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIPPLE 9/13/03TIPPLE UPDATING// TIPPLE RESPONDED TO THE SITE. IT APPEARED AS THOUGH THERE HAD BEEN A SEWER BACKUP INTO THE FOYER AREA OF THE BASEMENT. APPROXIMATELY ONE QUART OF OIL WAS FLOATING ON THE INFLUENT LIQUID. THE HOMEOWNER CALLED IN A PLUMBER, I SUPPLIED A FEW OIL ABSORBENT PADS AND THE OIL PROBLEM WAS RESOLVED. DEP WAS INFORMED OF THE SITUATION. //////////////// NO FURTHER ACTION NECESSARY////////////////////

**Map Identification Number 189**      **MANHOLE 62564**      **Spill Number: 9902131**      **Close Date: 07/20/1999**  
 WEST END AVE / WEST 83RD      MANHATTAN, NY      TT-Id: 520A-0102-286

MAP LOCATION INFORMATION  
 Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 1946 feet to the NW

ADDRESS CHANGE INFORMATION  
 Revised street: WEST END AVE / W 83RD ST  
 Revised zip code: 10024

Source of Spill: UNKNOWN Spiller: UNKNOWN Spiller Phone:  
 Notifier Type: Other Notifier Name: MR COOK Notifier Phone: (212) 580-6763  
 Caller Name: STEVEN CRIBBIN Caller Agency: CON EDISON Caller Phone: (212) 580-6763  
 DEC Investigator: JHOCONNE Contact for more spill info: STEVEN CRIBBIN Contact Person Phone: (212) 580-6763

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 05/25/1999 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 7.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

7 GAL OF OIL ON 4500 GAL OF WATER. CLEAN UP WILL BE DONE WHEN CREWS ARRIVE CON ED 125-095

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL CON ED E2MIS NOTES 6-09-99

7 gals. of unknown oil on top of 4500 water inside MH62564,oil is contained, no sample taken.

TO supervisor B. Byrne responded to location and found only a sheen in the manhole.

Cleanup completed on 5-27-99 X Removed/recovered liquid/solids. X Used absorbents to remove residual fluids. X Removed visible traces of oil.

Map Identification Number 190 305 – IN BROOKLYN OR MANHATTAN?



305 W 79TH ST

MANHATTAN, NY

Spill Number: 0009084

Close Date: 01/28/2005

TT-Id: 520A-0091-161

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1989 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Local Agency  
 Caller Name: JOHN SANPIETRO  
 DEC Investigator: RWAUSTIN

Spiller:  
 Notifier Name: MR YELLIN  
 Caller Agency: NYC DEP  
 Contact for more spill info: MR YELLIN

Spiller Phone:  
 Notifier Phone: (212) 580-2391  
 Caller Phone: (718) 595-6718  
 Contact Person Phone: (212) 580-2391

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 11/06/2000 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

says it is leaking into the basement of caller building

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was AUSTIN 5/10/04 – AUSTIN – TRANSFERRED FROM SACCACIO TO AUSTIN FOR REASSIGNMENT – END

1/28/05 – AUSTIN – DUE TO CONFUSION IN ADDRESS GIVEN (MANHATTAN? BROOKLYN?) AND AGE OF REPORT, CLOSED – END

**Map Identification Number 191**     **APT BLD.**     **Spill Number: 1307187**     **Close Date: 02/03/2016**  
 365 WEST END AVE     NEW YORK, NY     TT-Id: 520A-0293-325

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1991 feet to the WNW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                          |                       |
|-----------------------------------|------------------------------------------|-----------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: SUMMIT TRANSPORT                | Spiller Phone:        |
| Notifier Type: Other              | Notifier Name:                           | Notifier Phone:       |
| Caller Name:                      | Caller Agency:                           | Caller Phone:         |
| DEC Investigator: HRPATEL         | Contact for more spill info: LINDA PEREZ | Contact Person Phone: |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |         | Penalty Recommended |         |                      |
|------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 10/10/2013       |                     | UNKNOWN        | NO                      |         | NO                  |         |                      |
| Material Spilled |                     | Material Class | Quantity Spilled        | Units   | Quantity Recovered  | Units   | Resource(s) Affected |
| #4 FUEL OIL      |                     | PETROLEUM      | 50.00                   | GALLONS | 0.00                | GALLONS |                      |

**Caller Remarks:**

spill to inside basement floor of apartment building/clean up crew en route

**DEC Investigator Remarks:**

5k tank. 3k delivery. Driver noticed approx 50 gal weeping through concrete wall. tank is inaccessible. PTC responding with vac truck and crew. DEC Patel to respond as he is near location.

10/10/13--Hiralkumar Patel. alternate address: 301--311 West 77th Street, 365--369 West End Ave

no other spill found.

PBS #: 2--266736. as per PBS record, the site has following two tanks, in-service: -- one (1) 5,000 gal #6 oil AST in contact with soil, installed in Dec. 1990 -- one (1) 5,000 gal #2 oil AST on saddles, installed in Dec. 1997

2:25 PM:-- visited site. met Noe Osorio (building super) and Eric Sutphen (Hess).

site has two 5,000 gal tanks, inside vault with access, in basement. one tank is used for #6 oil and the other tank is used for #4 oil. fill port for #6 oil tank is located at the curb, along W 77th Street. Noe mentioned that #6 oil fill line was replaced in 2008, due to issues with fill box. fill port for the #4 oil tank is along the building's southern wall (close to #6 oil remote fill line) and about 2.5 ft above ground. vent pipes for both tanks are located near the fill port for #4 oil tank.

Noe is working at the site for past six (6) years and the #4 oil tank was not filled up in last six years as they use #6 oil. Noe mentioned that building is converting from #6 to #4 oil.

as part of conversion process, Riteway Tank cleaned the #4 oil tank on 10/03/13. during cleaning, Riteway removed about 2,000 gal oil. after cleaning, today Hess hired sub-contractor to deliver 3,000 gal #4 oil. Eric stated that driver heard whistle during the entire delivery. there was no sign of overfill at the vent pipe.

after making the delivery, driver noted oil coming up from sidewalk, near the fill line. driver and building super checked in basement and found oil on boiler room floor. tank vault is along building's southern foundation wall. elevation of tank vault floor is about 2 ft higher than elevation of boiler room.

oil seepage noted from western wall (into boiler room) and northern wall (into water tank room) of the tank vault. oil got into drain inside the water tank room, which ends into boiler room sump. spilled oil in boiler room got into sump. Noe immediately disconnected the sump.

Hess hired PTC who will pump out product from impacted drain in water tank room, boiler room floor, tank room and boiler room sump.

no petroleum odors noted outside the boiler room. could not inspect the tank room as boiler room floor, in front of tank vault access, was covered with oil.

365 West End LLC.

**\*\*property owner\*\*** c/o Melohn Properties Management

**\*\*management office\*\*** 1995 Broadway, 14th Floor New York, NY 10023 Attn.: Andrew Melohn

**\*\*property manager\*\***

Ph. (212) 787-2500 Ext. 13 email: andrew@melohnprop.com

Noe Osorio

**\*\*building super\*\*** Ph. (212) 595-1920

10/11/13-Hiralkumar Patel. 8:45 AM:- visited site. met Noe. PTC removed oil from impacted areas.

inspected tank vault, through vault access door. found minor oil on tank vault floor. PTC will continue cleanup. the #6 oil tank is located on south (along foundation wall) side of the vault and the #4 oil tank is located on north side. #6 oil tank is on brick saddles, while #4 oil tank is on metal legs.

Noe mentioned that the #4 oil fill line goes vertically down for about 1 ft under the sidewalk before it enters into the tank vault.

no petroleum odors noted. Noe mentioned that plumber will replace leaking #4 oil fill line next week. informed Noe that contaminated soil must be removed from under the sidewalk.

10/21/13-Hiralkumar Patel. 9:00 AM:- visited site. met Noe. no further work done at the site. asked Noe to seal fill port for #4 oil tank, immediately. also asked him to clean impacted areas in tank/boiler/water tank rooms for better monitoring.

12/06/13-Hiralkumar Patel. 3:30 PM:- spoke with Noe. he mentioned that PTC started excavating contaminated soil from sidewalk area, on 12/03/13.

12/09/13-Hiralkumar Patel. 12:53 PM:- spoke with Ray at PTC. they started removing contaminated soil from under the sidewalk. work will resume on 12/11/13.

12/18/13–Hiralkumar Patel. 9:40 AM:– visited site. met Noe. inspected tank/boiler rooms. found oil in boiler room sump. asked Noe not to pump oily water into sewer system. Noe mentioned that PTC has cleaned sump at least four times, but oil keeps coming in. found oil seepage from tank room wall, from area underneath the tank room floor (which is at higher elevation than boiler room). Noe mentioned that PTC has started remediating contaminated soil under the sidewalk.

based on observations during the site visit, investigation needed under the tank room floor as well as area around the boiler room sump.

12/19/13–Hiralkumar Patel. 1:55 PM:– spoke with Joseph Helmreich, at building management, as Mr. Melohn was out of office. informed him that the department requires removal of oily water from sump, stop any discharge of oily water into sewer system and delineation/remediation of contamination. 3:15 PM:– sent letter to Mr. Melohn requiring removal of product from boiler sump; delineation of contamination along fill line, inside tank room and around sump; and endpoint samples. asked him to submit report by the end of 03/14/14. letter emailed to Mr. Melohn.

01/13/14–Hiralkumar Patel. 10:17 AM:– spoke with Mark at PTC. they are still removing contaminated soil.

01/16/14–Hiralkumar Patel. 3:11 PM:– spoke with Ray. they finished and backfilled sidewalk excavation after collecting endpoint samples. Ray mentioned that they pumped out oil/water on following dates:

– 10/10/13 – when spill occurred – 12/10/13 – 500 gal – 12/11/13 – 500 gal – 12/31/13 – 200 gal – 01/13/14 – 100 gal

3:25 PM:– visited site. met Noe. he mentioned that PTC finished soil excavation and backfilled sidewalk excavation today. inspected boiler room. found mostly water with some oil in boiler room sump. super is using absorbent pads to collect oil in sump. sump pump was disconnected.

during inspection, noted concrete patch on boiler room floor in southwestern end. Noe mentioned that couple of years ago, they dug boiler room floor in that area near existing sewer trap, to connect another line to existing sewer system. during sewer line work, they dug to groundwater. there was no oil observed on groundwater during sewer line work.

Noe mentioned that PTC is planning to dug test pits in between tank room and boiler room sump.

01/17/14–Hiralkumar Patel. 3:30 PM:– left message for Mr. Melohn. asked him to provide work history regarding sewer line repair.

03/17/14–Hiralkumar Patel. 12:38 PM:– received call from Bob from PTC. they will install a skimmer in boiler room sump. borings will be installed in boiler room, this week.

04/30/14–Hiralkumar Patel. received message from Al Tonn (at 11:25 AM on 04/29/14) from Sovereign Consulting. he mentioned that they will do subsurface investigation, including installation of eight borings, today (04/30/14) and tomorrow.

Albert Tonn Sovereign Consulting, Inc. Ph. (631) 753–8380 email: atonn@sovcon.com

05/13/14–Hiralkumar Patel. 10:56 AM:– spoke with Al. they installed nine borings. bedrock was found couple of feet below grade. he is waiting for sample results from lab.

06/23/14–Hiralkumar Patel. 3:26 PM:– received message from AI.

06/26/14–Hiralkumar Patel. 10:16 AM:– spoke with AI. he mentioned that investigation has been completed and he is planning to submit report, including recommendations for remediation, by the end of July 2014, after he discuss with few contractors. asked AI to submit investigation report now. informed him that a remedial action work plan can be submitted by the end of July 2014. AI will submit investigation report by next week.

07/01/14–Hiralkumar Patel. received email from AI (at 3:59 PM on 06/30/14) including investigation report. abstract:

– on 10/10/13: PTC pumped out approx. 400 gal of fuel oil off the floor of the tank room and basement, and approx. 350 gal of oil–impacted water from basement sump – PTC removed impacted soil from around the former remote fill lines – total of 42 drums of impacted soil, 4 drums of absorbents and 1,950 gal of oil/water were transported off–site – PTC collected three endpoint samples from fill line excavation area – no contamination found in endpoint samples from fill line excavation – installed nine (9) soil borings/temporary wells point (SB–1 through SB–9) – two borings (SB–1 and SB–2) were installed within tank room and others (SB–3 through SB–9) were installed in boiler room – bedrock was found at 3 ft below tank room floor and at 4 ft below boiler room floor – soil observed during this investigation consisted of dark brown to red–brown or gray sandy gravel and silty sand – depth to groundwater at the property ranged from less than 1 ft to 2 ft bg – no groundwater encountered in SB–1 and SB–2 – fuel oil was observed in soil borings SB–5A, SB–7 and SB–8

----- – due to very limited soil encountered in SB–4 and SB–5, these boreholes were relocated and identified as SB–4A and SB–5A – due to the limited soil profile and shallow water table, inly the soil sample with the highest PID reading, above or below the water table, was obtained from each borehole – temporary well screen was installed within boreholes – total of nine (9) soil and seven (7) groundwater samples were submitted for analysis

soil analyticals:

|                        | SB-1   | SB-3  | SB-4A | SB-5A  | SB-6  | SB-7   | SB-8   |
|------------------------|--------|-------|-------|--------|-------|--------|--------|
| 2–3 ft                 |        |       |       |        |       |        |        |
| 2–2.5 ft               |        |       |       |        |       |        |        |
| 0–2 ft                 |        |       |       |        |       |        |        |
| 1–2.5 ft               |        |       |       |        |       |        |        |
| 2–3 ft                 |        |       |       |        |       |        |        |
| 0–2 ft                 |        |       |       |        |       |        |        |
| 0–2 ft                 |        |       |       |        |       |        |        |
| Benzene                |        |       |       |        |       |        | 192    |
| Toluene                | 473    |       |       | 870    |       |        | 4,620  |
| Ethylbenzene           | 4,590  |       |       | 2,970  |       |        | 5,030  |
| Xylene                 | 26,600 | 453   | 615   | 15,500 | 3,360 | 5,760  | 52,300 |
| 1,2,4–Trimethylbenzene | 42,000 | 3,580 | 2,230 | 18,900 | 6,270 | 10,500 | 55,900 |
| 1,3,5–Trimethylbenzene | 11,300 | 1,130 | 556   | 5,530  | 2,200 | 5,270  | 22,500 |
| Naphthalene            | 5,930  | 731   | 374   | 3,040  | 1,050 | 1,790  | 8,790  |

groundwater analyticals:

|        | SB-3 | SB-4A | SB-5A | SB-6 | SB-7 | SB-8 |
|--------|------|-------|-------|------|------|------|
| 2.5 ft |      |       |       |      |      |      |

2 ft

2.5 ft

3 ft

4 ft

|                        |     |     |     |     |     |     |
|------------------------|-----|-----|-----|-----|-----|-----|
| 4 ft Benzene           | 27  | 8   | 12  | 16  | 9   | 10  |
| Toluene                | 54  |     | 102 | 61  | 19  | 70  |
| Ethylbenzene           | 108 | 43  | 132 | 81  | 20  | 26  |
| Xylene                 | 213 | 89  | 616 | 381 | 183 | 292 |
| 1,2,4-Trimethylbenzene | 200 | 114 | 297 | 195 | 139 | 126 |
| 1,3,5-Trimethylbenzene | 57  | 33  | 71  | 59  | 65  | 46  |
| Naphthalene            | 45  | 22  | 51  | 41  | 24  | 23  |

08/20/14–Hiralkumar Patel. received email from AI (at 2:05 PM on 07/31/14) including remedial recommendation report. abstract: – proposed to excavate grossly impacted soil to bedrock in an area of approx. 15 ft by 25 ft and ranging in depth from approx. 2 to 4 ft – proposed to collect endpoint sidewall samples – as excavation will be extended to bedrock, endpoint bottom samples will not be collected – after the excavation is complete, the area is to be backfilled with 3/4 inch gravel – a 25 ft long recovery trench drain will be installed – two 4–inch dia. perforated PVC drain pipes will be installed within the trench, and connected to a collection sump – sump will be used to monitor for the presence of oil montly for three months – if oil is discovered, then absorbents will be used to remove the oil

the proposed remedial recommendations does not include contaminated area at former boring locations SB–1 and SB–3.

4:25 PM:– sent email to AI and asked to provide plan to remediate contaminated areas at former boring locations SB–1 and SB–3.

08/27/14–Hiralkumar Patel. 8:16 AM:– received email from AI. he mentioned that as analytical results, of SB–1 and SB–3, for VOCs were below residential use SCOs and due to possibility of structural damage to the buildng in area of SB–1, no remediation was proposed in these areas.

AI compared sample results of SB–1 and SB–3 with restricted residential use SCOs, which shows no VOCs above limit in SB–1 and SB–3.

10:11 AM:– sent email to AI including copy of soil/gw sample result tables from report dated 06/30/14. informed him that sample results are compared with unrestricted use SCOs and it confirms contamination in SB–1 and SB–3. asked him to call back to discuss further.

08/28/14–Hiralkumar Patel. 3:12 PM:– received call from AI. informed him that sample results are compared with unrestricted residential SOCs which shows VOCs above limit and samples from SB–1 and SB–3. AI mentioned that due to short distance between tank and tank room wall and also tank saddle in area, excavation in tank room is not possible. based on this, asked AI to excavate test pit in boiler room, close to SB–1 area. also asked him to include SB–3 area in proposed excavation. AI will discuss with his client and will call back.

09/02/14–Hiralkumar Patel. 3:28 PM:– received email from Al. he mentioned that the remedial excavation will be extended from the main excavation area up to area around boring SB–3 and then immediately in front of the tank room wall. due to the limited access and concerns for undermining the tank supports, no excavation work will take place within the tank room.

09/08/14–Hiralkumar Patel. 3:52 PM:– sent email to Al. informed him that the work plan looks ok and asked to submit work schedule.

11/13/14–Hiralkumar Patel. 1:49 PM:– spoke with Al. he mentioned that remedial work has not been conducted yet. 1:51 PM:– left message for Mr. Melohn. 1:56 PM:– left message for Mr. Osorio.

11/17/14–Hiralkumar Patel. 9:27 AM:– left message for Mr. Melohn. 9:28 AM:– left message for Mr. Osorio. 10:46 AM:– received call from Mr. Osorio. he is monitoring the boiler room sump and has not seen anymore product. he will asked Mr. Melohn to call back regarding soil excavation in boiler room.

01/06/15–Hiralkumar Patel. 1:03 PM:– received email from Al. he mentioned that contractor (American Environmental Assessment Corp) has scheduled to begin remedial excavation on 02/02/15, after getting necessary permits.

01/30/15–Hiralkumar Patel. 12:20 PM:– received email from Al. due to projected snow storm, remedial work has been postponed.

02/03/15–Hiralkumar Patel. 4:00 PM:– received email from Al. contractor will start field work tomorrow.

02/05/15–Hiralkumar Patel. 2:34 PM:– received email from Al. due to suspended alternate side parking (due to snow piles on street), crew can not find space to park their equipment. they will try to start project next week, if parking available.

03/19/15–Hiralkumar Patel. 2:56 PM:– received email from Al. he mentioned that excavation was completed on 02/13/15 and endpoint samples were collected. they have started backfilling using some of the boulders from the excavation. two separate recovery trenches will be installed in excavation.

07/14/15–Hiralkumar Patel. 2:57 PM:– received email from Al including remediation report. abstract: – total of 35.52 tons of impacted soil was excavated from boiler room – found shallow water table (1–2 ft below floor) – total of 12,717 gal of water/oil mixture pumped out of the excavation – impacted soil was excavated down to bedrock in an area of approx. 27 ft in length by 15 to 22 ft in width and ranging in depths from approx. 1 to 3 ft – during excavation, numerous large boulders were encountered that were removed from the excavation and used for backfilling – due to the presence of bedrock, no bottom samples could be collected – total of six endpoint sidewall samples were collected, from just above the bedrock ranging in depths from 20 to 32 inches – due to site constraints, the excavation was limited to the west due to the boiler, to the east to allow access to the stairs and the mechanical room, and to the south due to underground utilities – areas immediately surrounding building footers could not be excavated – a recovery trench was installed in two section due to the presence of a subsurface wall/structure (possible remnants of old coal storage bin) – one section of the recovery trench included one 24 inch diameter sump set at a depth of 33 inches and connected to two 4 inch diameter horizontal drainage pipes measuring approx. 7 ft and 10 ft in length – second section of the recovery trench included one 24 inch diameter sump connected to one 4 inch diameter horizontal drainage pipe, approx. 7 ft in length – due to very shallow bedrock on the northwest corner of the excavation, the horizontal drainage pipe in second section of the trench system was angled further to the east – each horizontal drainage pipe included a cleanout port – recovery sumps and cleanout ports were monitored on Apr. 30, May 30 and Jun 22, 2015 – neither floating product

nor an oil sheen were detected during the three monitoring events – found some contamination in endpoint sidewall samples soil analyticals:

-----EP-2-----EP-3-----EP-4-----EP-5-----EP-6

25 in.

28 in.

24 in.

24 in.

|                             |       |        |       |        |        |
|-----------------------------|-------|--------|-------|--------|--------|
| 32 in. Toluene-----         | 318   |        |       |        |        |
| Ethylbenzene-----           | 121   | 4,680  | 668   | 385    | 711    |
| Xylene-----                 | 1,770 | 24,200 | 1,570 | 2,990  | 3,870  |
| 1,2,4-Trimethylbenzene----- | 8,170 | 44,800 | 6,940 | 10,300 | 15,000 |
| 1,3,5-Trimethylbenzene----- | 3,220 | 13,800 | 2,530 | 5,190  | 5,180  |
| Naphthalene-----            |       | 4,120  | 808   | 869    | 1,870  |

07/23/15–Hiralkumar Patel. 1:53 PM:– sent letter to Mr. Melohn requiring monthly monitoring and quarterly sampling of recovery trench sumps, for a minimum of one year. asked him to submit quarterly reports, with first report due on 11/20/15. letter emailed to Mr. Melohn, AI, Thomas Lobasso (tlobasso@sovcon.com), Barry Goldberg (bgoldberg@melohnprop.com), Amir Kornblum (ak@themelohngroup.com), Jean McCreary (JMcCreary@nixonpeabody.com) and Jesse Hiney (jhiney@nixonpeabody.com).

11/30/15–Hiralkumar Patel. 3:38 PM:– received email from AI including first quarterly report. two trench sumps were gauged monthly. no LNAPL was detected during the three gauging events. groundwater samples were collected from two sumps on 10/09/15. no contamination noted in groundwater samples. next sampling will occur in Jan. 2016.

02/03/16–Hiralkumar Patel. received email from AI (at 1:03 PM on 02/02/16) including quarterly report and closure request. two remedial trench sumps were gauged on 11/06/15, 12/04/15 and 01/08/16. no LNAPL was detected in the sumps. groundwater samples from two sumps were collected on 01/08/16. no contamination noted in groundwater samples.

reviewed remediation report again and noted below: – six endpoint samples were collected individually on separate dates between 02/24/15 and 03/12/15 – neither floating product nor an oil sheen were detected in the sumps and cleanout ports during three monthly site visits in Apr., May and Jun. 2015

after receiving remediation report, the department sent letter in Jul. 2015 requiring monthly monitoring and quarterly sampling of recovery trench sumps. the sumps were monitored monthly between Aug. 2015 and Jan. 2016.

after reviewing available information, case closed based on following: – remediation conducted at the site (soil excavation in Feb./Mar. 2015) – results of monthly monitoring of the recovery trench sumps for almost a year (Apr. 2015 to Jan. 2016) – two quarterly groundwater sampling results (Oct. 2015 and Jan. 2016)

9:58 AM:-- sent spill closure letter to Mr. Melohn. letter emailed to Mr. Melohn and Al.

**Map Identification Number 192** **MANHOLE # 49901** **Spill Number: 0411668** **Close Date: 06/06/2005**  
 W 84 ST / WEST END AVE MANHATTAN, NY TT-Id: 520A-0098-433

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 2039 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: WEST END AVE / W 84TH ST  
 Revised zip code: NO CHANGE

|                            |                                       |                                      |
|----------------------------|---------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN   | Spiller: UNKNOWN                      | Spiller Phone:                       |
| Notifier Type: Other       | Notifier Name: PIROPATO,MARK          | Notifier Phone: (212) 580-8383       |
| Caller Name: PIROPATO,MARK | Caller Agency: CON-ED                 | Caller Phone: (212) 580-8383         |
| DEC Investigator: GDBREEN  | Contact for more spill info: ERT DESK | Contact Person Phone: (212) 580-8383 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/31/2005        |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | 0                | GALLONS                 | 0                  | GALLONS             | SOIL                 |

**Caller Remarks:**

No to 5 questions. See 157036.

**DEC Investigator Remarks:**

157036. On 1/31/05 at 20:21 K. Ferraro # 06749 #9 Supervisor called to report that at 20:15 he discovered 1 pt. of an unknown oil mixed with 25 gallons of water in manhole-49901. this structure is located at SEC W. 84 St & west End Ave. He was there because there was an emergency in the next structure & was going to run cable from this structure to that one. He was working on acct # f3445. There was no sewers or waterways affected. No fire or smoke was involved in this structure. no private property was affected. The cause & source of the oil is unknown. A spill tag # 38849 was hung & 2 samples were taken 1 for pcb & 1 for ID with a chain of custody # DD-07868. This will not be a 24 hr spill due to storm emergencies tying up crews & equipment. 1/31/05 20:48 CIG C. Shikarides # 84546 was notified. R. Bruns # 21106

1/31/05 23:47 Received lab results, Lab Sequence Number: 05-00833-001 Oil Identification

----- Analysis indicates the presence of a cable oil.

2/1/05 03:19 Received lab results, Lab Sequence Number: 05-00834-001 TEST DESCRIPTION RESULT UNIT METHOD

----- PCB Analysis by EPA 608/8082  
 ----- Aroclor 1242 < 1.0 ppm EPA 608/8082  
 ----- Aroclor 1254 < 1.0 ppm EPA 608/8082 Aroclor 1248 < 1.0 ppm EPA 608/8082 Aroclor 1260 < 1.0 ppm EPA 608/8082

3/1 @ 20:38 Cleanup completed on 3/30 @ 12:30 Two bags of Solid waste consisting of PPE & rags and matting, arms and PC joints  
 Liquid waste removed – three gallons of oil 40 gallons of water and 50 gallons of mixed with rinse water by the Vactor Truck. The structure was double-washed with SLIX , washed floor, walls and crabs. Environmental tag # 38849 was removed

4/1 @ 20:50 There was no visible sign of the source – possibly thru ducts or third party spill into manhole

Update: 4/20/05 @ 08:26 Correction to update 3/1 @ 20:38 should read 4/1 @ 20:38 and cleanup completed on 3/30/05.

**Map Identification Number 193**

**COMMERCIAL PROPERTY/APT BLDG**

**Spill Number: 0906140**

**Close Date: 11/04/2013**



30 WEST 70TH ST

MANHATTAN, NY

TT-Id: 520A-0232-118

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2045 feet to the SSW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: adzhitom

Spiller: SCOTT FOLGELBERG – ESTATE  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: MIKE DINGER

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (201) 984-3652

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 08/20/2009        |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | 0                | GALLONS                 | 0                  | GALLONS             |                      |

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**Caller Remarks:**

CALLER STATES THAT DUE A FAILED UNREGISTERED TANK AN UNK AMOUNT OF PRODUCT SPILLED TO THE BASEMENT CLEAN UP WAS NOT DONE.

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**DEC Investigator Remarks:**

Sangesland spoke to an attorney for a potential purchaser of this apartment building. There is a 5,000 gal tank (size?) that is NOT PBS registered. There is also signs of leaking in the basement. The building is being sold and the purchaser would like to have all of the legal/environmental issues cleared up before the sale goes through. Sangesland left a voice message with Mr. Scott Folgelberg asking for more information about the spill (unknown if he is an owner or manager of the building). Find and owner/manager and send a TTF/CSL letter to them.

According to the building superintendent, a spill of No. 4 fuel oil occurred on the subject property approximately 10 years ago as a result of an overflow and possible rupture of aboveground piping within the aboveground storage tank (AST) vault located within the basement / sub-basement area of the building. The fill pipe had been repaired subsequent to that release and there were no indications of a more recent/current release. The oil was recovered from the basement boiler room area as well as the AST vault immediately following the release. Initially, a spill was not reported to the New York State Department of Environmental Conservation (NYSDEC).

The cause of the historical release is believed to be the reported failure of the remote fill pipe during a delivery of oil a number of years ago. The fill pipe had been repaired subsequent to that release and there were no indications

On August 19, 2009, Commercial Assessments performed a Phase I Environmental Assessment at the subject property. During the performance of the Phase I free product oil was observed on the floor of the boiler room, within the sump pit and emanating from the lower portion of the basement wall immediately beneath the AST vault. The sump pit reportedly discharges to the New York City sanitary sewer system.

On Thursday September 3, 2009, Partner conducted a Phase II Subsurface Investigation. The investigation scope included six soil borings (B1 through B6). Borings B1 through B4 were advanced in the boiler room area and borings B5 and B6 were advanced in the AST vault area. Borings B1 through B4 and boring B6 were advanced approximately 6-inches below the base of the concrete floor, at which point refusal was encountered. Boring B5 was advanced to a depth of approximately 5 feet below the surface at which bedrock was encountered.

Groundwater and free product was identified a top the bedrock in borings B1 through B4. No groundwater or free product was identified in either boring B5 or B6 with the thickest accumulations identified in boring B4.

Partner collected 6 soil samples on September 3, 2009; however, based on visual observations and the presence of free product only two samples B1 and B6 were analyzed for VOC's and SVOC's. The analytical results indicate that none of the analyzed soil samples had detectable concentrations of VOC's and SVOC's. All detected concentrations were below the regulatory guidelines.

A letter was sent to Scott Fogelberg from Commmerical Assessment on September 21,2009 requesting the following: 1.- Delineation of soil and groundwater contamination via determination of groundwater flow direction. 2.- Implementation of interim remedial measures if free product is present in the sump. 3.- submission of a surrounding area site map and former/current locations of

all ASTs.

Partner Engineering and Science sent the proposal for remedial action dated 10/02/2009. The scope of work include the installation of several piezometers at the boring locations.

Partner Engineering and Science sent the Supplemental Investigation Report and Proposal Remedial Action Work Plan dated July 30,2010. Partner conducted a Supplemental Investigation to determine the status of the residual oil observed in the AST vault and boiler room locations.

Six (6) additional shallow borings V1 through V6 were advanced through the concrete floor on May 25, 2010 to evaluate the extent of the release. The original scope of work was to include the installation of several piezometers at the boring locations; however, no piezometers were installed during the investigation as drilling refusal (bedrock) was encountered at depths of eight inches or less, making piezometer installation impractical.

In addition, three horizontal borings H1,H2,H3 were advanced through the wall separating the boiler room from the AST vault to a maximum depth of penetration of approximately 18 inches. The locations were selected to correspond to previously observed locations of oil staining / oil permeation of the masonry materials .

Oil was observed in four of the six shallow borings which coincided with elevated PID readings. At the time of the investigation, oil was again observed to be seeping from the base of the AST vault wall and through the brick at one location along the wall.

3-3-2011 The spill was reassigned to AZ as per V. Brevdo. AZ

3-3-2011 Contacted David Umbach ph. 201-335-0149. They installed a sump pump, around 20 weep holes, and one trench to collect the free phase product. They are using recirculation pump to pump from the lower level of the boiler up into a tank vault and then the water comes down the wall behind the tank and into the weep holes. They collecting water and oil. They recovered about 110-120 gal of free product by now. I requested submittal of quarterly progress reports. I requested separate measurements of water and product. AZ

10-12-2011 David Umbach contacted me and asked for an approval of a WP submitted in 2010 to S. Sangesland. I asked him to send me an installation report and a status report. The system is offline since March 2011 due to contract negotiations. AZ

11-10-2011 Remedial Action update was received by DEC. Oil was observed to be leaching through the tank vault wall and onto the boiler room floor at 30 W 70th Street. In 2009 borings were advanced within the vault and through the boiler room floor. Oil was present in soil samples from borings advanced through the boiler room floor and visual observations of oil seeps through the wall separating the AST vault and boiler room and oil permeation of the masonry materials along the wall. The cause of the release is believed to be the reported historical failure of the remote fill pipe during a delivery of oil. The fill pipe had been repaired subsequent to that release.

Partner retained a contractor on behalf of Fine Times Inc. to cut and excavate a narrow trench along the base of the wall separating the AST vault and boiler room. The trench was installed on either side of a concrete block pier located beneath the door to the AST vault along a path that will intercept the current oil seep and other areas where site observations (e.g., oil staining of the wall) indicate oil is trapped. A shallow sump / pit was installed so as to enable the trenches to drain to the sump under the influence of a low-flow pump. The pump is used to remove perched water and recirculate it above and behind the

wall of the AST vault to help induce the flow and capture of oil by the underlying trench. A second automated free product recovery pump system which tracks and follows water level elevation changes within the sump removes accumulating oil directly to a holding tank for future disposal. The system was completed and readied for operation in January of 2011.

To date, a total of three 55 gallon drums of oil contaminated soil and concrete have been collected and disposed of which were generated during the system installation process. Additionally, a total of five 55 gallon drums of mixed oil and water have been collected and disposed of to date which were also accumulated during the system installation and start up operations.

After the system is up and running, a surfactant solution can be used to amend the re-circulated water stream to help flush out additional oil trapped beneath the AST vault and behind the wall. As remediation progresses, a bioremediation amendment solution will be used to help enhance the biodegradation of residual oil that remains trapped behind the wall but which continues to resist removal by flushing. System operation parameters will be determined by trial and observation over the first 1–2 months of operation and will be adjusted to optimize removal by Partner personnel on site as conditions warrant. Quarterly reports will be provided to document the volume of water treated and volume of oil collected as the system is in operation. AZ

8–20–2012 A status report for the 2nd quarter of 2012 was received and e-doc'ed. Currently, the system is processing approximately 1,200 gallons of water per day, at an average of 0.83 gallons per minute, (gpm) or approximately 50 gallons per hour (gph). This calculation estimates the volume of water treated during the second quarter at 109,200 gallons. No measurable quantity of free product has been recovered during the second quarter of 2012.

During August 2012, a bioremediation amendment solution will be used to help enhance the biodegradation of residual oil that remains trapped behind the wall but which continues to resist removal by flushing. System influent water samples will be collected for volatile organic compounds (VOCs) analysis by NYS Stars List (SW846/8260) and semi-volatile organic compounds (SVOCs) analysis by NYS Stars List (SW846/8270C) at the end of the second quarter to determine the effectiveness of the treatment. AZ

1–11–2013 Received a quarterly report dated October 20, 2012. No e-copy was attached. Left a message asking for the electronic copy. During August 2012, a bioremediation amendment solution was added to help remediation of residual oil that remains trapped behind the wall. The system is processing approximately 1,100 gallons of water per day. AZ

9–20–2013 Received a quarterly report dated June 14, 2013. No e-copy was attached. Left a message for David Umbach at 732–380–1700 #1255. The report stated that a spill of undetermined volume of fuel oil occurred on the property in approximately 1999. The spill was a result of overfill and possible failure of aboveground piping within AST vault room located within the basement of the building. Partner cut and excavated a narrow interceptor trench through the concrete floor. The trench was intended to intercept the oil seeping from behind the AST tank vault and facilitate flow and capture of perched water and oil. A shallow pump was constructed to facilitate drainage. The system was completed in 2011. A total of three 55 gallon drums of oil contaminated soil and concrete and five 55 gallon drums of mixed oil and water were generated and disposed off-site. The calculated total volume of water treated in four quarters of system operation is estimated at 436,800 gallons. During August 2012, a bioremediation solution was added to help enhance the biodegradation of residual oil. Influent water sample was collected in November 2012. NO VOCs or SVOCs were detected. Additional sheen and/or oil globules are not present.

DEC comments: no historical free phase table was submitted, when free phase was present last time in the sump pump? No e-copy was submitted to DEC. AZ

9-23-2013 Spoke with David Umbach. Conveyed DEC's concerns. He will submit requested info. AZ

10-22-2013 Left a message for David Umbach 732-380-1700 ext.1255. No e-copy was submitted to DEC. AZ

10-25-2013 Discussed the site with David Umbach. Partner submitted 4 reports for the site and a separate table with the historical product thickness data. They will combine all reports in one and include the historical product thickness table. The report will be re-submitted. AZ

10-30-2013 A spill of undetermined volume of fuel oil occurred on the property in approximately 1999. The spill was a result of overfill and possible failure of aboveground piping within AST vault room located within the basement of the building. Partner cut and excavated a narrow interceptor trench through the concrete floor. The trench was intended to intercept the oil seeping from behind the AST tank vault and facilitate flow and capture of perched water and oil. A shallow pump was constructed to facilitate drainage. The system was completed in 2011. A total of three 55 gallon drums of oil contaminated soil and concrete and five 55 gallon drums of mixed oil and water were generated and disposed off-site. The calculated total volume of water treated in four quarters of system operation is estimated at 436,800 gallons. During August 2012, a bioremediation solution was added to help enhance the biodegradation of residual oil. Last two sampling events in July and November of 2012 of the influent water samples detected no Volatile or Semi-Volatile compounds above MDL. Oil sheen and/or oil globules were absent within the sump pump since April 2012. No oil was leaching through the boiler room wall. Based on this information this spill is closed. AZ

11-4-2013 The following e-mail was sent to David Umbach (Partner Engineering and Science, Inc):

Dear David,

I have reviewed a Remedial Action Summary Report dated October 28, 2013. The report states that a spill of undetermined volume of fuel oil occurred on the property in approximately 1999. The spill was a result of overfill and possible failure of aboveground piping within the aboveground storage tank (AST) vault room, located within the basement area of the building.

A narrow interceptor trench was cut and excavated through the concrete floor. along the base of the wall separating the AST vault and boiler room. The trench was intended to intercept the oil seeping from behind the AST tank vault. Also, the trench facilitated flow and capture of perched water and oil. A shallow pump was constructed to improve drainage. The system was completed in 2011.

A total of three 55 gallon drums of oil contaminated soil and concrete, and five 55 gallon drums of mixed oil and water were generated and disposed off-site.

The calculated total volume of water treated in four quarters of system operation is estimated at 436,800 gallons. During August 2012, a bioremediation amendment solution was added to help enhance the biodegradation of residual oil.

Confirmatory system water samples were collected for Volatile Organic Compounds (VOCs) and semi-volatile organic compounds (SVOCs) analysis. No VOCs or SVOCs were detected above MDL. Oil sheen and/or oil globules were absent within the sump pump since April 2012. No oil was leaching through the boiler room wall.

Based on this information this spill is closed.

The Department hereby reserves all of its rights concerning, and such forbearance shall not extend to, any further investigation or remedial action the Department deems necessary due to:

- I. The off-site migration of petroleum contaminants that was unknown at the time of this closure.
- II. Environmental conditions related to this spill case which were unknown to the Department at the time of this closure.
- III. Information received, in whole or part, after the Department's spill case closure, which indicates that corrective action was not sufficiently protective of human health and/or the environment.
- IV. Fraud in obtaining this spill case closure determination.

As a precaution, we must bring your attention to our concerns for the future use of this site. If subsurface contamination is encountered while excavating for any construction activity, appropriate remedial and vapor mitigation efforts must be taken to fully prevent vapor intrusion into any site development and to ensure human health and safety. This spill closure does not exempt the Responsible Parties from compliance with any applicable laws and regulations.

Please be advised that you should maintain a permanent file of all documentation and correspondence regarding this case for future use as the Department's files may not be maintained indefinitely.

Sincerely,  
 Alex Zhitomirsky

**Map Identification Number 194**      **MANHOLE TM-1549**      **Spill Number: 9912234**      **Close Date: 11/15/2004**  
 IFO 154 W70TH ST      MANHATTAN, NY      TT-Id: 520A-0095-280

**MAP LOCATION INFORMATION**  
 Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 2067 feet to the SW

**ADDRESS CHANGE INFORMATION**  
 Revised street: IFO 154 W 70TH ST  
 Revised zip code: NO CHANGE

|                                 |                                          |                                      |
|---------------------------------|------------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN        | Spiller: UNKNOWN                         | Spiller Phone:                       |
| Notifier Type: Affected Persons | Notifier Name: MR CARROLL                | Notifier Phone: (212) 580-6763       |
| Caller Name: BILL MURPHY        | Caller Agency: CON EDISON                | Caller Phone: (212) 580-6763         |
| DEC Investigator: JHOCONN       | Contact for more spill info: BILL MURPHY | Contact Person Phone: (212) 580-6763 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/24/2000        |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | 5.00             | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

5 GALLONS ON 495 GALLONS OF WATER. REF #129725 – SAMPLE TAKEN CLEANUP PENDING TEST RESULTS

DEC Investigator Remarks:

e2mis no. 129725:

01/24/10:35 Joseph Picac # 66214, Troubleshooter, found 5 gals. on 495 gals of water in tm1549 f.o 1549 W.70 st. while on inspection. Spill did not enter the waterway or sewer system. Sample was taken for pcb count & id. Sign # 27276 was installed. Clean up pending lab results, clean will be made by I&A North.

01/25/00 14:46 Received lab results, lab sequence # 00-00736 Aroclor – none, PCB – <1.00 ppm

1/26/00 07:00 Russel I&A reports cleanup completed on midnight shift with tanker and flush truck. Transformer checked, no leak. Removed 500 gal water from structure via tanker. Clean structure with flush truck. Envio tag # 27276 removed.

Map Identification Number 195



VAULT #V1826  
WEST 72ND STREET

MANHATTAN, NY

Spill Number: 0401745

Close Date: 09/07/2004  
TT-Id: 520A-0093-114

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 2101 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: 253 W 72ND ST  
Revised zip code: 10023

Source of Spill: UNKNOWN  
Notifier Type: Responsible Party  
Caller Name: CHRIS SHIKARIVES  
DEC Investigator: JHOCONNE

Spiller: ERT DESK – CON ED  
Notifier Name: CHRIS SHIKARIVES  
Caller Agency: CON ED  
Contact for more spill info: ERT DESK

Spiller Phone: (212) 580-8383  
Notifier Phone: (212) 580-5673  
Caller Phone: (212) 580-5673  
Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date        | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |        | Penalty Recommended |        |                      |
|-------------------|---------------------|----------------|-------------------------|--------|---------------------|--------|----------------------|
| 05/18/2004        |                     | UNKNOWN        | NO                      |        | NO                  |        |                      |
| Material Spilled  |                     | Material Class | Quantity Spilled        | Units  | Quantity Recovered  | Units  | Resource(s) Affected |
| UNKNOWN PETROLEUM |                     | PETROLEUM      | 0                       | POUNDS | 0                   | POUNDS | SOIL                 |

Caller Remarks:

15 GALLONS OF OIL MIXED WITH SOIL NO WATER , IS A SEWER IN VAULT BUT UNKNOWN IF IT HAS REACH ED , CLEAN UP IS PENDING:

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL e2mis no. 153431:

approx. 15 gallons of oil mixed with soil. There is no water in V1826. A.Figueroe #84445 said there is a sewer in V1826, but it is unknown at this time if there has been any release to the sewer. There is no cleanup action being taken at this time. The cleanup is pending.

R.RUSSELL#10177 splicer, took a sample from the trap in V1826 and saw no visual sign of oil in the drain. The chain of custody #DD03262. R.Russell#10177 thinks it could be a possible bottom leak.

T.Coghlan notified the control center that it is a drain, not a sewer in V1826.

Lab Sequence Number: 04-03803-001: TOTAL PCB 5 ppm

Lab Sequence Number: 04-03808-001: Analysis indicates the presence of a substance similar to a dielectric fluid.

Update :19:00 hrs 05/18/04 L.Leardi reports that Partial clean up complete in V1826, Tanker took on 391 gallons of oil from unit. Oil absorbant has been put down, final clean up pending removal of transformer.

5/27 @ 05:50 V Mirance # 58484 of Cable reported to me that the cleanup completed as of 05:0. No solids were removed and all liquids were removed by the Vactor truck. The structure was double-washed with SLIX . The source of the spill was the Transformer and it has been removed and replaced.

**Map Identification Number 196**



**THE ORMANDE**  
2030 BROADWAY  
NEW YORK, NY

NEW YORK, NY 10023

**Spill Number: 1206031**

**Close Date: 10/23/2012**  
TT-Id: 520A-0278-032

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 2116 feet to the SW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
Notifier Type: Affected Persons  
Caller Name:  
DEC Investigator: HRPATEL

Spiller: the ormande  
Notifier Name:  
Caller Agency:  
Contact for more spill info:

Spiller Phone:  
Notifier Phone:  
Caller Phone:  
Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 09/18/2012 |                     | OTHER          | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | UNKNOWN | 0                  | UNKNOWN | INDOOR AIR           |

**Caller Remarks:**

Caller claims that landlord removed tank(s) and there has been a chronic petroleum odor in his store. He requests that somebody from DEC meet him at 10 AM because that is when his store opens. Ask for Joseph Arabian. cell:(917)741-5968. Landline:(212)382-2760.

**DEC Investigator Remarks:**

PBS#2-606183. According to the registration information: One 5,000 gallon AST storing #2 fuel oil was in-service at the facility and was closed on 6/26/2012. Registration expiration date:3/27/2017.

Caller claims that he called Spills Hotline and they referred him to me.

Spill assigned to T. Demeo as directed by R. Austin.

10/23/12-Hiralkumar Patel. case re-assigned to DEC Patel as investigating same problem under spill #: 1203045.

case closed. refer to spill #: 1203045 for more details.

**Map Identification Number 197** **319 WEST 77TH STREET.**  
 319 WEST 77TH STREET.

MANHATTAN, NY

**Spill Number: 9310521**

**Close Date: 11/30/1993**  
 TT-Id: 520A-0092-011

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2121 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Other  
 Caller Name: VIRGINIA SOVIERO  
 DEC Investigator: KSTANG

Spiller: UNK  
 Notifier Name:  
 Caller Agency: PETRO  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (718) 545-3662  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 11/30/1993 | 11/30/1993          | UNKNOWN        | UNKNOWN                 |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | -1.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

SPILL CONTAINED AT FILL BOX - DRIVER DID CLEAN UP.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TANG

**Map Identification Number 198** **100 WEST 89TH ST/MANH**  
 100 WEST 89TH STREET

NEW YORK, NY

**Spill Number: 9004060**

**Close Date: 07/16/1990**  
 TT-Id: 520A-0101-158

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2129 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                                  |                              |                               |
|--------------------------------------------------|------------------------------|-------------------------------|
| Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER | Spiller:                     | Spiller Phone: (212) 769-2100 |
| Notifier Type: Affected Persons                  | Notifier Name:               | Notifier Phone:               |
| Caller Name: RAY RISO                            | Caller Agency: BUILDER       | Caller Phone: (718) 229-4300  |
| DEC Investigator: KSTANG                         | Contact for more spill info: | Contact Person Phone:         |

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 07/11/1990        | 07/16/1990          | UNKNOWN          | UNKNOWN                 |                    | NO                  |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | -1.00            | UNKNOWN                 | 0.00               | UNKNOWN             | SEWER                |

Caller Remarks:

FUEL ODOR NOTICED IN BASEMENT, NYC FD RESPONDED, FOAMED SEWAGE EJECTION PIT, FUEL STILL IN PIT, NYC DEP NOTIFIED, COULD BE FUEL OIL IN GROUNDWATER, LEAKING UNDER BUILDING INTO EJECTOR PIT.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TANG

|                                                                                    |                         |               |                              |                               |
|------------------------------------------------------------------------------------|-------------------------|---------------|------------------------------|-------------------------------|
| <b>Map Identification Number 199</b>                                               | <b>MANHOLE 61729</b>    |               | <b>Spill Number: 9912170</b> | <b>Close Date: 11/15/2004</b> |
|  | WEST END AV / W 85TH ST | MANHATTAN, NY |                              | TT-Id: 520A-0102-513          |

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 2163 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: WEST END AVE / W 85TH ST  
 Revised zip code: 10024

|                                        |                              |                                |
|----------------------------------------|------------------------------|--------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: CON EDISON          | Spiller Phone:                 |
| Notifier Type: Responsible Party       | Notifier Name: COOK          | Notifier Phone: (212) 580-6763 |
| Caller Name: MIKE CESARE               | Caller Agency: CON EDISON    | Caller Phone: (212) 580-6763   |
| DEC Investigator: JHOCONNE             | Contact for more spill info: | Contact Person Phone:          |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date                         | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/21/2000                         |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled                   | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN NON-PETRO/NON-HAZ MATERIAL | OTHER               | 60.00            | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

ON 1000GAL OF WATER – SAMPLE TO BE TAKEN – CASE #129704

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL

1/21/00, 3:10 PM – spoke with ERT Stan Piczsatowski – asked him to have Joe Arcoleo (on-scene ERT) call me.

3:45 PM – Over 50 tanker on-site. Estimate of oil amount made visually – approximatley 1 of oil on 1 foot of water at bottom of manhole. (JHO)

~~~~~ e2mis no. 129704:

On 1/21/00 Senior Elec. Tech. F. Henry(21147) and R. Coletti (49504) of Corrosion Survey

Central Gas Operations were on a Periodic inspection for cathodic protection for FDR M51/M52 and discovered 60 gallons of unknown old oil on top of 1000 gallons of water inside mh 61729. This is an underground structure and containment is not known at the present time. No samples were taken at the present time. Corrosion Techs are on stand by to be relieved by UT crew.

DEC 99-12170. Con Ed transportation called for over 50 ppm PCB tanker to pump out manhole. Chem lab notified to take samples. Temp EPA ID # NYP004049011 received from ERT for pumpout of manhole by Con Ed tanker assuming 50-499 ppm PCBs. At 14:10 Vac Trucks dispatched from Corp Trans to pump out manhole. Clean Harbors notified to respond and clean out manhole and treat as 50-499 since PCB results are unknown at this time. Con Ed tanker sent back empty. At approx 15:00 Stan Baldwin (NYCDEP) was on job site and he left at 16:00. Clean Harbors on site and Manhole pumped and double washed. Joe Arcoleo on site. Chem lab reports 00-00669 <1.00 ppm PCB. Clean Harbors given lab result and released from job site. They removed 1200 gallons of liquid from manhole. At 10:00 1/22/00 manhole was checked by TO crew – no sign of leak was found.

Map Identification Number 200

MAN HOLE #61729

Spill Number: 9811082

Close Date: 11/04/2003

WEST END AV & W 85TH ST

MANHATTAN, NY

TT-Id: 520A-0102-512

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 2163 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: WEST END AVE / W 85TH ST
 Revised zip code: 10024

Source of Spill: UNKNOWN
 Notifier Type: Other
 Caller Name: FRANK MASSERIA
 DEC Investigator: CAENGELH

Spiller: Unnown
 Notifier Name: MR COOKE
 Caller Agency: CON EDISON
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone: (212) 580-6763
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/03/1998 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DEBRIS | OTHER | 0 | GALLONS | 0 | GALLONS | SOIL |
| UNKNOWN PETROLEUM | PETROLEUM | 6.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

CON ED #121680 DEBRIS AND OIL ON TOP OF 750 GALLONS OF WATER. SAMPLE HAS NOT BEEN TAKEN. WAITING FOR A CREW TO TAKE SAMPLES. CLEAN UP PENDING RESULTS.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was ENGELHARDT E2MIS 121680

Logger : Louis Cook (15851) Date: 12/3/98 Description: On 12/3/98 Senior Elec. Tech. R. Dayton (05458) and B. Ciruzzi (02192) of Corrosion Survey Central Gas Operations were on a visual inspection of manholes for potential leaks on FDR M51/M52 an discovered 6 gallons of unknown oil and solid debris on top of 750 water inside mh 61729. The Techs are standing by the mh until a crew U.T. relieves them They noted that the oil is contained and did not enter any sewers or waterways. No sample was taken.

REFERRED TO S&TO THROUGH EMAIL NOTIFICATION.

DEC #98-11082. Samples taken by chem lab. Waiman Wong (DEP) on location at approx 17:00. He demanded a sample to be taken from the manhole . Sample given to him. CGO crew on location to standby until relieved by TO crew. Chem lab results 98-13414 <1.0 ppm

PCBs Clean Harbors reported to location and cleaned manhole by solidifying liquids (estimated at less than 100 gallons total), and vacuuming up all solids in manhole. Clean up completed at 01:00 12/4/98. Clean Harbors removed estimated 10,000 pounds of debris from manhole. ERT notified. VS 78367

UPDATE: Entered by Alice F. Williams – Employee # 75829 on December 4, 1998 at 07:48:00 LARGE OIL SPILL Con Edison Incident No. 121680 CLEANUP CHECKLIST NYSDEC Spill No. 98–11082 Hard Copy File Location _____ Name of person completing checklist: VERNON SCHAEFER Con Edison Operating Department responsible for spill cleanup: T/O (1) A large oil spill is a spill of oil containing less than 50 ppm PCBs that: ? Does not meet the criteria for a de minimis spill; ? Is not totally contained in an impervious structure, such as a manhole, vault, or moat, and Environmental Detailed Incident Report E2MIS 13–OCT–2003 10:14:46 Page 3 of 6 ? Does not meet at least one of the following criteria: ? No sewer or waterway is affected, and ? No private property is affected, and ? No personal injuries are involved, and ? Cleanup is completed within 72 hours of the spill discovery, and ? Less than 50 gallons of oil, petroleum product of any kind, or dielectric fluid is spilled. (2) Material spilled/discovered: Oil (type); PCB concentration: less than 50 ppm; known / unknown. X Dielectric fluid; PCB concentration: less than 50 ppm; known / unknown. If unknown PCB concentration, was sample collected? Yes No (3) Sample submitted for analysis? X YES Sample ID No. 98–13414 No For what parameters? X PCB – X BENZENE Copy of chain of custody form attached? Yes X NO (4) Amount spilled/discovered: 6 GALLONS If leak/spill is continuing, rate N/A (5) When was spill discovered? Date: 12/03/98 Time : 12:30 (6) Location of spill. (Be as precise as possible. Include cross streets, manhole numbers, equipment box numbers, etc., as appropriate.) MANHOLE 61729 – WEST END AVENUE S/O 86TH STREET 0 Sketch attached (7) Source/cause of spill. (Be as precise as possible. Include equipment numbers, if possible.) OLD OIL IN MANHOLE 0 Unknown (8) Description of area affected by spill (include dimensions as appropriate) MANHOLE ONLY Sketch drawn? Yes No (9) Was sewer or waterway affected? Yes Location X NO If yes, amount of spill in/on sewer/water Known Estimated (10) Was boom deployed? Yes Absorbent or Containment (circle one) X NO By whom? Con Edison Contractor (11) Containment/Cleanup Activities (per GEI 2.11, 2.13, 2.16, 3.2, or 3.3) Sketches attached. Tightened valve. Placed drip plan. Sealed leak. Blocked nearby sewers/drains with spill kits. Removed/recovered liquid/solids. X Used absorbents to remove residual fluids. Removed contaminated vegetation. Removed visible traces of oil. X Washed stained areas. Excavated contaminated soil, bluestone. Other See attached contractor report. (12) Identify who performed cleanup:

Con Edison personnel/department? X Name of contractor: CLEAN HARBORS Contractor report attached. (13) Con Edison personnel directing cleanup: CARRILLO (14) Were emergency discharge permits obtained to perform cleanup? Yes X NO If yes, identify permit type(s) and number(s) Copy attached (15) Estimated amounts/types of wastes generated. Recovered oil amount Recovered fluids/solids amount Recovered oil/water amount Excavated soil/bluestone amount X Recovered sludge/debris 10,000 LBS amount Used absorbents amount Other amount Manifests/shipping papers attached? X YES No (16) Were post–cleanup samples collected? Yes X NO Describe Sketch attached? Yes No (17) Were soil borings wells installed? Logs Attached Describe visual observations Sketch attached? Yes No Samples sent for analyses Yes Sample ID No. No For what parameters? Chain of custody form attached? Yes No (18) Were photographs taken: of the spill? Yes Attached X NO of cleanup activities? Yes Attached X NO of post–cleanup conditions? Yes Attached X NO (19) Was videotape taken of affected private property, cleanup activities, and post–cleanup condition? Yes Attached No (20) Cleanup completed on Date: 12/04/98 Time: 01:00 (21) Spill Cleanup Resolution: Was written/oral resolution provided to Con Edison by regulatory agency? Yes X NO If not, identity of Con Edison employee affirming that spill was cleaned up as indicated herein. (Signature) : VERNON SCHAEFER Name (Print) VERNON SCHAEFER (Title/Department) : SUPERVISOR – TRANSMISSION OPERATIONS (22) Were regulatory agency/public officials/emergency officials at the spill scene? Yes No Name Affiliation ID No. Arrived (date/time) Departed (date/time)

WAI MAN WONG – DEP 17:00 18:00 (23) Were directives given to Con Edison personnel? X WRITTEN Oral None By whom: WAI MAN WONG To Con Edison personnel: CGO CREW Describe: CLEAN ASAP Attached (24) Was resolution issued indicating spill was resolved? Written

Oral X NONE By whom To Con Edison personnel Describe Attached (25) Did media representatives visit spill scene? Yes* X NO
 Name Affiliation Arrived (date/time) Departed (date/time) * Direct media representatives to Con Edison Public Affairs personnel.
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Chem lab reports 98-13419 <1.0 ppb benzene.

Map Identification Number 201 **91 CENTRAL PARK WEST** **Spill Number: 0308740** **Close Date: 12/22/2003**
 11 WEST 69TH STREET MANHATTAN, NY TT-Id: 520A-0095-733

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2188 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|----------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Other | Notifier Name: MR PAGANO | Notifier Phone: (212) 580-6763 |
| Caller Name: RON ELLIOT | Caller Agency: CON EDISON | Caller Phone: (212) 580-6763 |
| DEC Investigator: CESAWYER | Contact for more spill info: ERT | Contact Person Phone: (212) 580-8383 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 11/17/2003 | | UNKNOWN | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 25.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

caller states spill from the oil delivery truck to one of the boxes - i/f/o the residence - spill is contained and cleaned
 pending sample results - coned #151164

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SAWYER Related to previous spill - Sawyer is lead. (JHO)

~~~~~ Con Ed e2mis no. 151-164 notes: On11/17 @ 10:35 discovered in S-12582 approx 25 gallons of what is suspected as Heating fuel oil. It has an odor and the Bldg. Super reports to the Finder that a Fuel oil delivery was made a few days ago and a

spill occurred. This is a third party spill. Three samples will be taken for PCB, ID and flash point.

In addition this incident was discussed with ERT, Dan Pontecorvo at approx. 10:45 hrs. It was agreed that we should wait for sample results before we initiate the cleanup unless a governmental agency directs us to start the cleanup immediately. Since this is a third party spill we should submit the cleanup charges to the third party for reimbursement after the cleanup is completed.

Lab Sequence Number: 03-09326-001 Analysis indicates the presence of a substance similar to a light fuel oil. Lab Sequence Number: 03-09325-001 TOTAL PCB: 4 ppm Lab Sequence Number: 03-09325-002 Flash Point, PMCC > 140 deg F

12/01/03 Underground/cleanup supervisor called to report that the cleanup was completed at 13:10 There was 1 barrel filled with ppe & oily dirt generated as a result of this cleanup. The tanker removed 125 gallons of oil/water mixture. The structure was double washed with slix.

**Map Identification Number 202** **216301; 321 W 82 ST AND RIVERSIDE DR** **Spill Number: 0914135** **Close Date: 05/06/2009**  
 321 W 82 ST AND RIVERSIDE DR NEW YORK, NY TT-Id: 520A-0248-777

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2191 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: 321 W 82ND ST  
 Revised zip code: 10024

|                                        |                                       |                                      |
|----------------------------------------|---------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: ERT DESK – CON EDISON        | Spiller Phone:                       |
| Notifier Type: Responsible Party       | Notifier Name:                        | Notifier Phone:                      |
| Caller Name:                           | Caller Agency:                        | Caller Phone:                        |
| DEC Investigator: DMPOKRZY             | Contact for more spill info: ERT DESK | Contact Person Phone: (212) 580-8383 |

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 04/07/2009        |                     | UNKNOWN          |                         |                    |                     |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | 0                | GALLONS                 | 0                  | GALLONS             | UTILITY              |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 203** **VERIZON MANHOLE**  
 WEST 87TH ST & BROADWAY

**Spill Number: 0809964** **Close Date: 10/23/2009**  
 MANHATTAN, NY TT-Id: 520A-0225-185

**MAP LOCATION INFORMATION**  
 Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 2195 feet to the N

**ADDRESS CHANGE INFORMATION**  
 Revised street: W 87TH ST / BROADWAY  
 Revised zip code: NO CHANGE

|                                        |                                           |                                      |
|----------------------------------------|-------------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: UNKNOWN                          | Spiller Phone:                       |
| Notifier Type: Other                   | Notifier Name:                            | Notifier Phone:                      |
| Caller Name:                           | Caller Agency:                            | Caller Phone:                        |
| DEC Investigator: vszhune              | Contact for more spill info: JOE GIAMPAPA | Contact Person Phone: (646) 265-2279 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/05/2008 |                     | OTHER          | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 5.00             | GALLONS | 0.00               | GALLONS |                      |

**Caller Remarks:**

3RD PARTY CALL FROM A VERIZON WORKER STATING THAT THERE IS ABOUT 5 GALLONS OF UNK PETROLEUM IN THE MANHOLE. CALLER STATES THAT HE NEEDS IT CLEANED SO HE CAN CONTINUE WORKING.

**DEC Investigator Remarks:** NOTE: These remarks are shorter than in the previously tracked spill

after 4PM on Friday – Off Hours

10/20/09– Zhune spoke to Joe Giampapa from Verizon (646)265-2279. He said that he did not remember been doing any job at west 87th st & Broadway. He said year ago they were doing work on west 187th st & Broadway. He asked me to call the Environmental people (Jamie Mcelman) 1800 386-9639.

10/20/09– Zhune spoke to Jamie 813-978-6965 from Environmental people he said that is going to search because a year ago he was not working with the Environmental Department.

10/23/09–Zhune. Spill cleaned. Minor spill. Spill closed

**Map Identification Number 204** **98 RIVERSIDE DRIVE**  
 98 RIVERSIDE DRIVE

NEW YORK, NY 10024

**Spill Number: 9815515**

**Close Date: 04/10/2009**  
 TT-Id: 520A-0101-335

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2204 feet to the NW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
 Notifier Type: Other  
 Caller Name: JOE OSTROWSKI  
 DEC Investigator: SFRAHMAN

Spiller: M N RACOLIN MGT  
 Notifier Name: /  
 Caller Agency: A.L. EASTMAN & SONS, INC  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone: (914) 963-5160  
 Caller Phone: (718) 378-3000  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/30/1999 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 1000             | GALLONS | 0                  | GALLONS | SOIL                 |

**Caller Remarks:**

2 7500 gal burried tanks – both tanks recieved an oil delivery at the same time – a short time later 1 tank indicated a large loss of product – oil seeping through wall into basement – tank has been emptied and clean up being done

**DEC Investigator Remarks:**

6/7/07–Matthew Klaas (Albany DER) –Contacted AVJ Realty Corp. at 914-963-5160, was informed that Mr. Korn had retired several years ago but was put in contact with David Lyons at 914-963-5160 ext. 29. He recalls the spill and problem and says it was completely taken care of at the time and that it is totally documented. He needs some time to retrieve the documents and then he

will send them to me for confirmation.

6/13/07 –Matthew Klaas (Albany DER) –Wrote a letter to David Lyons of AVJ Realty at 733 Yonkers Ave Yonkers, NY 10704 asking for the information I requested over the phone.

10/12/07 – Mike Komoroske (Albany, NY) –Received a call from a Barbara Martinsons, President of AVJ Realty Corp at 914–963–5160 ext 12. She was responding to a letter from Martin Brand (who was not in the office today) of this office requesting documentation of tank/spill closure. She was under the impression that the spill had been closed and was appreciative that the DEC called to her attention that it wasn't. Tank has been replaced and documentation provided by NYC. She is going to hire a contractor to determine condition in the subsurface. Hopes to hire contractor within a week or so. She will then provide response to letter with documentation of tank replacement and the subsurface investigation report which hopefully will be sufficient to close the spill.

10/17/2007: Received from Barbara Martinsons (AVJ Management Corporation) documentation regarding installation of new tank, closure of old tank, and new PBS certificate for new tank. M. Brand NYSDEC DER Albany

transferred back to Region 2

3/11/08 – Austin – Reassigned to Rahman for further investigation – end

03/18/08 According to 11/07 investigation by IVI Environmental, light petroleum non-aqueous phase liquids(LNAPLs) were identified below the sub level boiler room,oil was observed seeping through the basement wall.According to IVI, four soil borings were advanced, ground water was encountered at two inches below the floor slab. Free product layer was observed in one of the borings, free product emulsion was found floating at the surface of the remaining three borings. ATC performed Phase II investigation in 01/08.Eight soil borings were performed, six in the sidewalk, two in the basement.None of the soil borings outside of the boiler room encountered petroleum impacted soils.LNAPL was observed floating on the surface of the groundwater at borings SB–08,SB–11,and SB–12 and trace product at SB–07.VOCs/SVOCs in soil analyticals were below TAGM.The boiler room extends 10' deeper than the rest of the building, the bed rock was carved out to create the basement.(sr)

4/1/09 – Austin – Transferred from Needs Reassignment to Rahman for further work to remediate and close – end

04/09/09 Reviewing closure report.USTs are located adjacent to the boiler room, below the basement floor.Soil borings advanced outside of the boiler room encountered refusal on bedrock.None of the soil borings outside of the boiler room encountered petroleum impacted soils.In May and November of 2008 four EFR events recovered approx. 4,760 gallons of liquids(LNAPL and water) from below the floor slab of the boiler room.Following the second EFR events in July 2008, LNAPL was not observed in any of the recovery points. During the six inspections following the last EFR event on November 2008, only a sheen and products globules were observed in four recovery points.Inspections in Jan and Feb 2009, only a residual sheen was observed in one recovery point.Therefore, ATC concluded that all reasonably recoverable LNAPL has been removed from the subsurface.Furthermore, given the nature of the No.6 oil(high viscosity and low volatility), the location of the boiler room, and the placement of the epoxy coating on the walls and floors of the boiler room and the adjacent AST vault(located on top of one of the closed USTs), any residual fuel oil is not likely to pose a risk to human health or the environment.ATC recommended that all recovery points be backfilled with concrete and coated with the same epoxy coating as the rest of the boiler room floor, the boiler room floor be inspected periodically to assess its integrity. In February and March 2009, True Blue Environmental Services power washed the lower four feet of the walls and the floors of the boiler room and AST vault. The floors and walls were sealed with ArmorSeal

1,000 HS Epoxy Floor Coating.NFA required.(sr)

**Map Identification Number 205**

**CHRISTIAN COMMUNITY**

**Spill Number: 9808907**

**Close Date: 05/12/2004**



309 W.74TH ST

MANHATTAN, NY

TT-Id: 520A-0092-536

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2239 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                 |                                                       |                                      |
|---------------------------------|-------------------------------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN        | Spiller: GISELA WIELKI (PRIEST) – CHRISTIAN COMMUNITY | Spiller Phone: (212) 362-7204        |
| Notifier Type: Affected Persons | Notifier Name: MADELON HOLDER                         | Notifier Phone: (212) 877-4159       |
| Caller Name: MADELON HOLDER     | Caller Agency:                                        | Caller Phone: (212) 877-4159         |
| DEC Investigator: RWAUSTIN      | Contact for more spill info: GISELA WIELKI (PRIEST)   | Contact Person Phone: (212) 362-7204 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/17/1998 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled  | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                   |                | Units            |         | Units              |         |                      |
| UNKNOWN PETROLEUM | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

**Caller Remarks:**

SOME TYPE OF BLACKISH MATERIAL COMING UP THROUGH THE FLOOR. OIL STS IT IS NOT HEATING OIL. REQ CALL FROM DEC.

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was AUSTIN No PBS. 5/12/04 – AUSTIN – UNREGULATED SUBSTANCE REPORT FROM ALMOST 6 YRS. AGO – CLOSED – ORIG. ASSIGNED TO HALE – END

**Map Identification Number 206**

**MAN HOLE 61729**

**Spill Number: 1502126**

**Close Date: 08/19/2015**



WEST END AVE AND 85 AND 86 ST

NEW YORK, NY

TT-Id: 520A-0310-632

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (4)  
 Approximate distance from property: 2242 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: WEST END AVE BTWN W 85TH ST & W 86TH ST  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Spiller: CON ED

Spiller Phone:

Notifier Type: Other

Notifier Name:

Notifier Phone:

Caller Name:

Caller Agency:

Caller Phone:

DEC Investigator: RWAUSTIN

Contact for more spill info: ERT

Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 05/28/2015 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| WASTEWATER        | OTHER          | 100.00           | GALLONS | 100.00             | GALLONS |                      |
| UNKNOWN PETROLEUM | PETROLEUM      | 6.00             | GALLONS | 6.00               | GALLONS |                      |

**Caller Remarks:**

6 gallons oil on 100 gals water/clean up pending crew

**DEC Investigator Remarks:**

5/28/15: Mahat Spill case has been assigned to con ed unassigned.

8/19/15 - Austin - 6 gals cable oil found atop 100 gals water in vault - Con Ed contained and cleaned up the spill; no leaking equipment found in vault - See document files for further information - Spill closed - end

**Map Identification Number 207**

**MANHOLE 61729**

**Spill Number: 0007959**

**Close Date: 06/30/2004**

 WEST END AV/BET 85 & 86

MANHATTAN, NY

TT-Id: 520A-0102-212

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (4)  
 Approximate distance from property: 2242 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: WEST END AVE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Other  
 Caller Name: BILL MURPHY  
 DEC Investigator: JHOCONNE

Spiller: UNKNOWN  
 Notifier Name: MCQUEEN  
 Caller Agency: CON EDISON  
 Contact for more spill info: BILL MURPHY

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (212) 580-6763  
 Contact Person Phone: (212) 580-6763

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/06/2000 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 2.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

2 GALS PRODUCT ON 1700 GALS WATER SAMPLE TAKEN CLEAN PENDING RESULTS MANHOLE CONTAINES 345 KV OIL FILLED FEEDERS M-51 M-52 CON ED 133819

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL e2mis no. 133819:

2 gallons of unknown oil and approx. 1700 gallons of water. Cleanup pending sampling results.

Sample ID No 00-09644 PCB 1 ppm.

**CLEANUP CHECKLIST** Source/cause of spill – NO LEAK FOUND X Removed/recovered liquid/solids. X Removed visible traces of oil. X Washed stained areas. X Other DOUBLE WASHED MANHOLE X Name of contractor S & D ENVIRONMENTAL Cleanup completed on Date 10-13-00 Time 09:30

**Map Identification Number 208**



**SPILL NUMBER 9814552**  
RIVERSIDE DR / W 79TH ST

MANHATTAN, NY

**Spill Number: 9814552**

**Close Date: 03/05/1999**  
TT-Id: 520A-0102-280

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
Approximate distance from property: 2312 feet to the WNW

**ADDRESS CHANGE INFORMATION**

Revised street: W 79TH ST / RIVERSIDE DR  
Revised zip code: 10024

Source of Spill: UNKNOWN  
Notifier Type: Citizen  
Caller Name: GWEN HAWKINS  
DEC Investigator: HUANG

Spiller:  
Notifier Name: MR LUCAS  
Caller Agency: DEP  
Contact for more spill info:

Spiller Phone:  
Notifier Phone: (212) 595-2765  
Caller Phone: (718) 595-6777  
Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 03/05/1999 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 5.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

SPILLED IN STREET - CALLED IN BY A PASSERBY

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

**The following DEC Investigator Remarks were available prior to 1/1/2002:**

SPOKE WITH JON LUCAS OF OIL CO. GOTHAM DELIVERY CAUSED SPILL. SPILLS MAY RUN INTO STORM DRAIN AT THE CORNER. CLEANUP TEAM IS WORKING THERE AT 3:45PM. CALL CIT LEFT MESSAGE. CALLED SANITATION 212 219-8090. SPOKE WITH BOB. HE WILL PUT SAND ON IT. FAXED TO DEP.

**Map Identification Number 209**      **218418; W 86 ST AND WEST END AVE**



W 86 ST AND WEST END AVE

MANHATTAN, NY

**Spill Number: 0914466**

**Close Date: 09/14/2009**

TT-Id: 520A-0248-722

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 2324 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: W 86TH ST / WEST END AVE  
 Revised zip code: 10024

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Responsible Party

Caller Name:

DEC Investigator: DMPOKRZY

Spiller: ERT DESK – CON EDISON

Notifier Name:

Caller Agency:

Contact for more spill info: ERT DESK

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 09/12/2009 |                     | UNKNOWN        |                         |                     |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIELECTRIC FLUID | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | UTILITY              |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 210**



**VAULT 5837**  
 WEST 86TH ST AND WEST END AVE

MANHATTAN, NY

**Spill Number: 0906576**

**Close Date: 10/14/2009**

TT-Id: 520A-0232-097

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 2324 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: W 86TH ST / WEST END AVE  
 Revised zip code: 10024

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Local Agency

Caller Name:

DEC Investigator: RWAUSTIN

Spiller: ERT – UNKNOWN

Notifier Name:

Caller Agency:

Contact for more spill info: ERT

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Any Type of RP Including No RP – No DEC Field Response – Corrective Action by Spill Response Not Required

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 09/09/2009 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN MATERIAL | OTHER          | 0                | UNKNOWN | 0                  | UNKNOWN |                      |

Caller Remarks:

No to all questions. Clean up pending chemical analysis

DEC Investigator Remarks:

10/14/09 – Austin – Leaking transformer lost 10 gals. of oil – Spill cleaned up and transformer replaced – see eDocs for details – spill closed – end

**Map Identification Number 211**      **218615; W END AVE AND 72ND ST**  
 W END AVE AND 72ND ST

MANHATTAN, NY

**Spill Number: 0914501**

**Close Date: 09/30/2009**  
 TT-Id: 520A-0249-519

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 2326 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: W END AVE / W 72ND ST  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Responsible Party  
 Caller Name:  
 DEC Investigator: DMPOKRZY

Spiller: ERT DESK – CON EDISON  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: ERT DESK

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 09/26/2009 |                     | UNKNOWN        |                         |                     |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIELECTRIC FLUID | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | UTILITY              |

Caller Remarks: NO REMARKS GIVEN FOR THIS SPILL

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 212** **COMMERCIAL BUILDING** **Spill Number: 0707548** **Close Date: 12/13/2007**  
 11 RIVERSIDE DRIVE NEW YORK, NY TT-Id: 520A-0211-104

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2329 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                                  |                                            |                                      |
|--------------------------------------------------|--------------------------------------------|--------------------------------------|
| Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER | Spiller: HARDIK PAREKH – COMMERCIAL BUILD  | Spiller Phone: (518) 746-4400        |
| Notifier Type: Other                             | Notifier Name:                             | Notifier Phone:                      |
| Caller Name:                                     | Caller Agency:                             | Caller Phone:                        |
| DEC Investigator: jbvought                       | Contact for more spill info: HARDIK PAREKH | Contact Person Phone: (518) 746-4400 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/09/2007 |                     | OTHER          | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

FOUND CONTAMINATED SOIL DURING TESTING

DEC Investigator Remarks:

10/10/2007 Sangesland left a voice message with Mr. Parekh at EEA, asking for the name/address for the property owner or manager to send a CSL.

10/15/2007 Property Manager is: John Walpole 212 874 1434 – 11 Riverside drive Corp., New York, NY 10023

Building is a 16 story apt building that had 2– 25,000 tanks closed in place in backyard (work was done by someone else in summer 2007). EEA was hired to do soil boring testing around these tanks in Sept 2007. 5 borings were taken and some minor VOC and SVOC hits were found in soil samples. They took one groundwater sample which came back clean. EEA will send a closure report in to DEC. They do not expect to do any additional work and would like a closure based on the hits being minor.

11/07/07–Vought–Reviewed Phase II Subsurface Investigation Report (EEA Hardik Parekh Ph:516–746–4400 fax: 516–746–4432) dated September 2007 and received 10/23/07. Site is 16 story residential apartment building. Two (25000–gallon) #6 fuel oil USTs abandoned in place previously. Five soil borings installed around USTs. Groundwater at depth of 15'bg and one groundwater sample was collected. Letter requests No Further Action. Soil analyticals show: 1380ppb xylenes (B4 10–12'bg) and some minor PAH exceedences attributable to fill material. Groundwater analyticals show no TOGs 1.1 Groundwater Exceedences. As per Chart, tank invert is 11' below grade. No borings performed in expected downgradient location. Vought called Hardek and he will be out until December. Vought left message with Nicholas Recchia that scaled site plan is needed. Vought received call back from Recchia that he will submit scaled site plan.

DEC requires: 1) scaled site plan to ensure that gw sampling location is proximal to abandoned UST location and upon submission possibility of downgradient sample collection 2) cc to Recchia

12/5/07–Vought–Received call from Parek and he will submit scaled site plan.

12/13/07–Vought–Received scaled site plan that shows B5W 2' away from former UST location that extended to a depth of 15–17'bg. Vought called Parekh for distance of B2 away from USTs and B2 is approximately 2'6" from UST. Spill closed by Vought as soil samples were close enough and deep enough to characterize soil conditions below tank invert.

#### Map Identification Number 213



#### 600 COLUMBUS

600 COLUMBUS AVE.

MANHATTAN, NY

Spill Number: 0407891

Close Date: 12/16/2011

TT-Id: 520A–0091–553

#### MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 2362 feet to the NNE

#### ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Fire Department  
 Caller Name: TONY GIARDINO  
 DEC Investigator: rmpiper

Spiller: UNKNOWN  
 Notifier Name: FIRE DEPT.  
 Caller Agency: GRENADIER REALTY  
 Contact for more spill info: JORGE VAZQUEZ

Spiller Phone:  
 Notifier Phone: ( ) –  
 Caller Phone: (718) 240–4664  
 Contact Person Phone: (914) 476–2604

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |         | Penalty Recommended |         |                      |
|------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 10/16/2004       |                     | UNKNOWN        | NO                      |         | NO                  |         |                      |
| Material Spilled |                     | Material Class | Quantity Spilled        | Units   | Quantity Recovered  | Units   | Resource(s) Affected |
| #6 FUEL OIL      |                     | PETROLEUM      | 0                       | GALLONS | 0                   | GALLONS | SOIL                 |

Caller Remarks:

Underground tank on the other side of the wall – leakage is coming through the wall – is contained. Commercial parking garage on the other side of the wall whe

DEC Investigator Remarks:

12/5/05– DEC Piper spoke w/ Mr. Vasquez. AS per conversation the ust is being used as a recovery point. and is still in ground/ not closed. I placed a call into PTC to determine status. Waiting for call back. 4/4/06– Grenadier Realty 718.640.4664–

1230 Pennsylvania ave, brklyn ,11239 4/25/06– DEC Piper spoke w/ MARK at PTC. He will look into it and get back to me with update and current status. 2/28/07– DECP iper mailed info request to mgmt agency.

4/18/07– DECP iper recieved letter from PTC.

DEC Piper received documetation that no oil is present in sump or in former tank. Based on work to date this spill is closed. See edocs if warranted.

Map Identification Number 214



ROADWAY

2 WEST 69TH ST

MANHATTAN, NY

Spill Number: 0811781

Close Date: 01/30/2009

TT-Id: 520A-0226-355

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 2382 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Citizen

Caller Name:

DEC Investigator: smsanges

Spiller: ROBERT KEPICH – UNKNOWN

Notifier Name:

Caller Agency:

Contact for more spill info: ROBERT KEPICH

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 01/28/2009 |                     | UNKNOWN        | NO                      |                     |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 0                | UNKNOWN | 0                  | UNKNOWN | SOIL                 |

Caller Remarks:

Third party caller states an unknown oil truck leaked an unknown amount of oil onto the roadway, creating a sheen coating. Sanitation dept enroute for sand.

DEC Investigator Remarks:

Sangesland spoke to Mr Kepich. couple of gallons area is being sanded by city sanitation.

**Map Identification Number 215** **RIVERSIDE DR FROM 76TH TO 79TH**



MANHATTAN, NY

**Spill Number: 0011833**

**Close Date: 02/05/2001**  
 TT-Id: 520A-0102-194

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (5)  
 Approximate distance from property: 2389 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: RIVERSIDE DR FROM 76TH TO 79TH ST  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Citizen  
 Caller Name: KATHRYN HEINTZ  
 DEC Investigator: TJDEMEO

Spiller: UNKNOWN – Unknown  
 Notifier Name: KATHRYN HEINTZ  
 Caller Agency: CITIZEN  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone: (212) 875-5782  
 Caller Phone: (212) 875-5782  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 02/02/2001 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

CALLER STATES SHE NOTICED AN OIL SHEEN ON RIVERSIDE FROM 76TH TO 79TH. UNK WHERE IT IS FROM BUT IT WAS CAUSING HER VEHICLE TO SLIDE ON THE ROAD

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was DEMEO Sanatation notified and responded to sand street

**Map Identification Number 216**      **RAFFERTY RES**      **Spill Number: 0109869**      **Close Date: 12/08/2003**  
 336 WEST 84TH ST      MANHATTAN, NY      TT-Id: 520A-0101-345

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2400 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                     |                                |
|-----------------------------------|-------------------------------------|--------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: PETRUS OIL                 | Spiller Phone:                 |
| Notifier Type: Affected Persons   | Notifier Name: TOM RAFFERTY         | Notifier Phone: (212) 721-8219 |
| Caller Name: TOM RAFFERTY         | Caller Agency: CITIZEN              | Caller Phone: (212) 721-8219   |
| DEC Investigator: TJDEMEO         | Contact for more spill info: CALLER | Contact Person Phone:          |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 01/10/2002 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

caller states that the oil co made a delivery to the house across the street on thursday. and caller still has an odor of

heating oil in his basement. would like a call back

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DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was DEMEO 1/12/2002–Tim Demeo and Jeffrey Vought (NYSDEC) respond to spill by site visit. Investigation of the residence showed that odors were originating from hole in a schist cobble wall facing 84th street in the former coal chute in the basement. Investigation of neighboring residence 334 West 84th street also yielded odors through the cobble wall facing 84th street. During the site visit the caller (Mr. Rafferty–336 West 84th) indicated that there was a previous spill a week earlier across the street at 337 West 84th Street. Discussion with the superintendent of 337 (Willie 212–926–0633) yielded that Petro Oil company was the delivery company which caused the spill. Petro was called by the NYSDEC and responded by immediately hiring Milro Associates (Paul Basso 516–379–1500) to perform the investigation and cleanup.

1/14/2002–Milro performs site visit to investigate the problem. Milro (Paul Basso) proposed to immediately address the health and safety concerns by sealing the basement walls of both 334 and 336 west 84th street with mortar and epoxy. NYSDEC approved the proposal. Gary Morgeran (owner of 334 west 84th) approves of the sealing. Mr. Rafferty rejects the proposal. Milro then offered the temporary solution, also approved by the NYSDEC, of installing plastic sheeting and an air filter and blower to ventilate the basement. Mr Rafferty requested that no filters be installed because he had purchased two filters already. He also requested that no blower be installed because of security concerns through the trap door to the basement.

1/18/2002–Plastic sheeting installed in 336 and air filters installed in 334.

1/28/2002–Meeting held between the NYSDEC, Milro and their subcontractor Lutz Environmental to review the boring locations. Two borings in front of 337 and one boring in front of 336 and one in front of 334 were proposed and agreed upon.

2/21/2002–Milro after learning that they can't obtain the permits because they are not the drilling company refers the task to Lutz. Lutz finally receives the sidewalk permits after a long process of contacting the NYCDOT and schedules the drilling for this day.

3/5/2002–Milro sends Mr. Rafferty a sidewalk repair letter (at Mr. Rafferty's request) stating that the boring locations will be backfilled and patched to grade. Mr. Rafferty rejects the letter and requested Milro replace the entire 18'6" of sidewalk.

3/13/2002–Milro sends Mr. Rafferty's request to Petro who forwarded it to their insurance company (Crum & Forster– Donna Matt (888–890–1500)). Crum & Forster replies stating that their company would bear full responsibility for the sidewalk....even if that meant replacing the entire sidewalk. Mr. Rafferty rejects the request and says contact his lawyer and he will not approve of any work in front of his house. Investigation of DOT regulations indicated that the sidewalk is considered public property and Mr. Rafferty has no authority to prevent borings. Consultation with NYSDEC supervisor R. Austin results in decision to move borings into street if Mr. Rafferty does not approve of sidewalk work. An additional attempt is made to contact Rafferty (a message was left) to notify him that Crum & Forster is willing to replace entire sidewalk and that NYSDEC may install borings in street once DOT can be contacted for approval.

3/14/2002–Left message for Rafferty to call NYSDEC 3/15/2002–Left message for Rafferty to call NYSDEC 3/19/2002–Left message for Rafferty to call NYSDEC and was told by his secretary that he is away on vacation until mid–April

3/25/2002–Due to lack of contact with Mr. Rafferty and necessity of data points in front of his home (the original location of complaint) the NYSDEC attempts to obtain sidewalk permits in front of his house by leaving a message with the NYCDOT (Harvey Woods 718–780–8140). Drilling on north side of street is scheduled for 3/29/2002.

3/29/2002–Mr. Woods is contacted and explains that Mr. Rafferty's permission for the permit is not need as long as a letter is supplied from the NYSDEC which explains the necessity of the work for health and safety reasons. Drilling company is on-site and unable to gain sidewalk access to due parked cars blocking the sidewalk. Drilling will be rescheduled for a time during street cleaning (Mon or Thurs). Drilling is rescheduled for 4/11/02. Borings will not be able to be performed on sidewalk in front of Rafferty residence because application with NYSDEC letter cannot be processed in time. NYSDEC will schedule these borings and submit the required paperwork as soon as possible.

4/11/02–3 soil borings are performed on the north side of the street. Refusal at 9.5' on bedrock. No PID readings, staining or odor. Inspection of Rafferty basement shows that petroleum odors are no longer emanating from hole in basement foundation.

Rafferty is called by the NYSDEC and told that there are no longer any odors and that the soil samples across the street next to the source of the spill show no contamination. NYSDEC suggests that the overflow of the tank had entered the drain at the bottom of the stairwell. This caused a slug of contamination to enter the sewer system and both residences across the street. Repeated rain events had washed the slug into the through the system and away from the Rafferty and Morgeran residences. Mr. Rafferty is told that the NYSDEC would like to take a confirmatory sample to ensure that there is no longer vapors in his home. Mr. Rafferty agrees to air sampling.

4/22/2002–NYSDEC receives soil analyticals from boring on north side of street. Analyticals show minor exceedances of SVOC compounds which can be attributed to fill nature of soil. No naphthalene, anthracene or other compounds indicative of fuel oil are present.

5/3/02–Left Morgeran message to make appointment to confirm presence of odors in basement.

5/7/02–Morgeran called and no answer of phone. 5/9/02–Morgeran called and no answer of phone. 5/10/02–Morgeran called and no answer of phone. 5/13/02–Inspection of Morgeran residence also yields no odors. 5/24/02–Receive message from Rafferty that when he turns off air filter he still smells oil.

5/24/2002–Rafferty's message is returned and NYSDEC leaves a message requesting a time to collect an air sample for laboratory analysis. 5/28/02– Rafferty is left another message to arrange time for air sample collection 5/29/02–Rafferty is left another message to arrange time for air sample collection. 6/7/02–Rafferty is left another message to arrange time for air sample collection. 7/12/2002–Rafferty is left another message to arrange time for air sample collection. 8/08/2002–Rafferty is left another message to arrange time for air sample collection and is also told that the spill report is registered to his property and that it would be in his best interest to call back.

12/8/03 TJD Based upon the results of borings and non cooperation of affected party spill has been administratively closed.

**Map Identification Number 217** **SEVEN GALLONS OF HYDRAULIC FLUID**  
 53 WEST 68 STREET  
 FROM VEHICLE #41814

MANHATTAN, NY

**Spill Number: 0705876**

**Close Date: 09/20/2007**  
 TT-Id: 520A-0090-045

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2401 feet to the SSW

**ADDRESS CHANGE INFORMATION**

Revised street: 53 W 68TH ST  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL VEHICLE  
 Notifier Type: Responsible Party  
 Caller Name:  
 DEC Investigator: gdbreen

Spiller: ERTSDESK – CON EDISON VEHICLE  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: ERTSDESK

Spiller Phone: (212) 580-8383  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/23/2007 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| HYDRAULIC OIL    | PETROLEUM      | 7.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

CLEAN UP IN PROGRESS; REF #207700;

**DEC Investigator Remarks:**

09/20/07 – See eDocs for Con Ed report detailing cleanup and closure. 207700. see eDocs

**Map Identification Number 218** **IN FRONT 545 WEST END AVE**  
 FRONT 545 WEST END AVE

MANHATTAN, NY

**Spill Number: 0000802**

**Close Date: 04/20/2000**  
 TT-Id: 520A-0098-010

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 2405 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: 10024

Source of Spill: COMMERCIAL VEHICLE Spiller: UNKNOWN Spiller Phone:  
 Notifier Type: Police Department Notifier Name: OFFICER MORALES Notifier Phone: (212) 678-1811  
 Caller Name: JASON SITANGGANG Caller Agency: DEP Caller Phone: (718) 595-6777  
 DEC Investigator: MCTIBBE Contact for more spill info: OFFICER MORALES Contact Person Phone: (212) 678-1811

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 04/19/2000 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #2 FUEL OIL      | PETROLEUM      | 10.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

a truck is leaking motor oil on the above location.nypd is on the scene.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIBBE TANK TRUCK MAKING DELIVERY LEAKED HEATING OIL NOT MOTOR OIL. ACCORDING TO DEP, TRUCK SPILLED ABOUT 10GAL TO STREET AND SOME IN CATCH BASIN. SANITATION SANDED STREET.

**Map Identification Number 219** **PARKING GARAGE**  
 267-273 W87 ST

MANHATTAN, NY

**Spill Number: 1500997**

**Close Date: 10/01/2015**  
 TT-Id: 520A-0309-050

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)  
 Approximate distance from property: 2422 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: 267-273 WEST 87TH STREET  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: QSB 267 PROPERTY CO LLC Spiller Phone:  
 Notifier Type: Other Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: Caller Phone:  
 DEC Investigator: SXMAHAT Contact for more spill info: RYAN MANDERBACH Contact Person Phone: 2124795582

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 04/28/2015        |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | 0                | UNKNOWN                 | 0                  | UNKNOWN             | SOIL                 |

Caller Remarks:

Phase 2 showing petroleum in soil samples.

DEC Investigator Remarks:

5/11/15: Mahat DEC Mahat left a voice message to Ryan Manderbach @ Langan Engineering inquiring more information about the spill case. DEC is waiting for a call back.

10/1/15: Mahat DEC Mahat will be provided BCP PM and RIR. Spill case has been crossed referenced with BCP. C231096 DEC Mahat partner with BCP Project Manager MD Hoque @ 518.402.9475 regarding consolidating the project together. Spill case in NYSDEC Spill Database will be closed and project will be lead solely by BCP program.

Map Identification Number 220

SPILL NUMBER 9912480

Spill Number: 9912480

Close Date: 03/02/2000



10 WEST 90TH ST

MANHATTAN, NY

TT-Id: 520A-0098-786

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 2433 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Affected Persons

Caller Name: STEVEN CRIBBIN

DEC Investigator: JHOCONNE

Spiller: UNKNOWN

Notifier Name: MR CALLAHAN

Caller Agency: CON ED

Contact for more spill info: STEVEN CRIBBIN

Spiller Phone:

Notifier Phone: (212) 580-6763

Caller Phone: (212) 580-8576

Contact Person Phone: (212) 580-8576

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 02/01/2000        |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | 3.00             | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

ABOVE MATERIAL DISCOVERED AT ABOVE LOCATION. MATERIAL AMOUNT IS REPORTED AS MIXED WITH WATER. MATERIAL POSSIBLY IS HEATING OIL SPILLED FROM DELIVERY AT BUILDING #10 WEST 90TH ST. MATERIAL DISCOVERED AT EXCAVATION SITE. CHEM LAB RESPONDING FOR SAMPLE. CLEANUP TO BE PERFORMED AFTER TESTING AND MATERIAL TO BE STORED UNTIL LAB RESULTS ARE RECEIVED. NO CALL BACK. NO CON ED #.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL CON ED E2 MIS REPORT 2/01/00

3 gallons of oil and water in company excavation f/o 10 West 90th Street. Spill contained in excavation, Chem Lab on location samples taken, company crews will do cleanup and all waste will be put in drum pending Chem Lab results, did not enter any waterways or sewers or sub-surface structures, spill caused by possible fuel-oil delivery to above location.

**Map Identification Number 221**     **210 WEST 89TH ST VAULT #5535**  
 210 WEST 89 TH ST

MANHATTAN, NY

**Spill Number: 0806603**

**Close Date: 09/12/2008**  
 TT-Id: 520A-0222-354

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2441 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: 210 WEST 89TH ST  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: HRAHMED

Spiller: ERP - CON ED  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: ERP

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (212) 158-08383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 09/12/2008        |                     | OTHER            | NO                      |                    | NO                  |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | 0                | UNKNOWN                 | 0                  | UNKNOWN             | SOIL                 |

Caller Remarks:

There is approx 1 pint of a liquid believed to be fuel oil in the water on the floor of above vault. The oil is coming into the vault from a crack in the wall believed to be from a neighboring building.

DEC Investigator Remarks:

10/20/08 – See eDocs for Con Ed report detailing cleanup and closure. 09/12/08–HRAHMED–Duty Desk–Called Nick Rella of NYPA and left a message. Nick called back. He said the released material was Refrigerant 22 and it fully evaporated. Spill report forwarded to Sam Lieblich of Air Program for their information.

This case is closed.

Map Identification Number 222

MANHOLE 5535

Spill Number: 0200291

Close Date: 08/19/2009

 210 WEST 89TH ST

MANHATTAN, NY

TT-Id: 520A-0091-328

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2441 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Affected Persons  
 Caller Name: ANTHONY NATALE  
 DEC Investigator: RWAUSTIN

Spiller: UNKNOWN – Unknown  
 Notifier Name: ANTHONY NATALE  
 Caller Agency: CON EDISON  
 Contact for more spill info: CALLER

Spiller Phone:  
 Notifier Phone: (212) 580-6763  
 Caller Phone: (212) 580-6763  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |         | Penalty Recommended |         |                      |
|------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|----------------------|
| 04/09/2002       |                     | UNKNOWN        | NO                      |         | NO                  |         |                      |
| Material Spilled |                     | Material Class | Quantity Spilled        | Units   | Quantity Recovered  | Units   | Resource(s) Affected |
| #2 FUEL OIL      |                     | PETROLEUM      | 1.00                    | GALLONS | 0.00                | GALLONS | SOIL                 |

Caller Remarks:

oil discovered in manhole

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was RODRIGUEZ E2MIS Notes #142176

On 4/9/02 at 11:27 L. First # 04738 Project specialist called to report that at 09:30 M. Gilson # 17065 of the I&A had found 1 gallon of residual fuel oil mixed with 500 gallons of water. This is in Vault-5535 & is located at 210 W. 89 St. He was there to do a disconnect. This substance was from a prior spill see incident # 122376. This will be a third party spill. A tag will be hung # 10792 (R. Biliski # 04919 I&A supervisor called with the tag #) No smoke or fire was involved. No sewers or waterways were affected. There is no movement on the water. No injuries were related to the spill. Weather conditions do not contribute to the hazard of the spill. No private property affected. The cleanup will start immediately, there is a tanker on location already to pump out the water from this location due to the sealed drains.

UPDATE 4/9/2002 @ 17:13 HRS

Spoke to Biliski # 04919 I & A, and he informed me that as of now the cleanup is complete. He needs to wait approx. a week to see if in fact the historic spill of oil leaking into the structure is stopped. I down-graded the incident to a spill-unknown oil for this reason stated above.

Yesterday, 4/30/02, MEHS, I&A, flush operations and SESCO were present @ V 5535 IFO 210

W.89th st.

Following a predetermined designed template, holes were drilled and a new to the site material (Duro Soil) was injected into these holes to waterproof and correct

the continuing but slight 3rd party fuel oil migration being experienced into the vault.

After a short curing period, the vault will be re-cleaned and oil leak monitoring will again begin.

Call with any questions

UPDATE: 7/16/02

See e-mail from Frank Romano, Manh. EH&S to R. Pellegrino, Manh. Envir. Desk dated 7/15/2002:

Bob,

Please update the E2mis report for the work completed @ 210 W.89th st on Friday June 14,2002.

This work included participation from I & A for access, Flush to dewater (150–200 gal) and pressure clean vault, and corp. transportation to stand by an with an

<50 tanker.

Vendor SESCO inspected , drilled a new hole matrix and inserted 20 gallons of 3M 5600 grout in this matrix.

I am requesting a return to the site on Friday July 21,2002 , to allow SESCO to remove remaining grout plugs

and thoroughly inspect for any further oil leaks or product migration.

The work should be completed within a 4 hour period.

Please provide and confirm that an I & A crew will provide access

I met with Bob O'neil this morning @ the site after the injection plugs were removed and the vault was thoroughly cleaned and inspected. No new oil was apparent We will re-inspect Thursday (7/25) for steam genny Friday(7/26) if no further oil leaks or migration is experienced over the coming week.

Dan

We're out on this location this morning. Previous attempts to seal this location have not been successful, however, the amount of oil seeping into the structure has been reduced significantly. If in fact the oil has stopped seeping into the structure, we'll be employing the following plan to get a unit installed.

1. Verify today that the oil is not migrating into the structure.
2. Next Friday, have Brooklyn Environmental Ops soda blast the walls to remove any oil which has been absorbed by the concrete.
3. Monitor the structure for 1 week for signs of oil either seeping into the structure or leeching from the walls. If necessary, have the structure soda blasted again.
4. If everything goes well, the unit can be installed in about 3 weeks. I know that might seem long. The history on this

structure is that it has thwarted every

effort control the oil. I don't want to drop a unit until I'm sure the oil is under control.

Walter

I could use the assistance of Brooklyn Environmental with a difficult cleanup location. I have a vault 5535 F/O 210 w.89th st which is a long term remediation project. The vault is in an area where there is a fuel oil leak from a nearby building. Rather than wait for the building to cleanup the spill, we moved forward with sealing the vault. After numerous attempts, the sealing looks like it has worked and there is no oil migrating into the structure. The is oil seeping from the walls which I suspect is oil absorbed by the walls during the initial leak. These have proved difficult to clean effectively. I would like to have your crew use your soda blast to clean these walls. I have attached a copy of the oil sample. The parking days are Tuesday & Friday 8-11am.

UPDATE: 8/05/02

Bob O'Neil, I&A North Planner made arrangements for this vault to be cleaned again by the special Brooklyn/Queens Environmental Operations team with their steam cleaning and soda blasting technique. The cleanup is scheduled for Tuesday, Aug. 6, 2002.

UPDATE 8/6/2002 @ 18:09 HRS

Mike Knox #38504 of Brklyn/Queens Envir. reported that the cleanup was completed @ 1745 HRS on 8/6. Mike Knox states that the walls are still stained. No solids were removed. 300 gallons of water and cleaning fluids were removed. The structure was double-washed with 35 gallons of BIO-GEN. The walls and floor were steamed cleaned. The crew used 7 bags of baking soda via the Soda blast technique. The Environmental tag # 10792 was removed.

Austin - 8/19/09 - See spill # 9810768. Remediation work of tank rupture in apartment completed in 2003 (note: unable to clean around Con Ed vault due to sability issues) Spill # 0200291 closed, based upon work under # 9810768 - end

**Map Identification Number 223**



**SPILL NUMBER 0101768**

20 RIVERSIDE DR

MANHATTAN, NY

**Spill Number: 0101768**

**Close Date: 05/17/2001**

TT-Id: 520A-0097-830

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (4)

Approximate distance from property: 2455 feet to the W

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Federal Government  
 Caller Name: ARLENE ANDERSON  
 DEC Investigator: MXTIPPLE

Spiller: UNKNOWN  
 Notifier Name: US COAST GUARD  
 Caller Agency: EPA  
 Contact for more spill info: RUS MAGILO

Spiller Phone:  
 Notifier Phone: (718) 354-4136  
 Caller Phone: (732) 906-6803  
 Contact Person Phone: (718) 354-4137

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 05/16/2001 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled                                                                                            | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------------------------------------------------------------------------------------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| OTHER                                                                                                       | OTHER          | 0                | GALLONS | 0                  | GALLONS | SURFACE WATER        |
| The following material(s) was dropped or revised by the NYS DEC. Call Toxics Targeting for more information |                | 0                | GALLONS | 0                  | GALLONS |                      |
| OTHER PETROLEUM                                                                                             | UNKNOWN        | 0                | GALLONS | 0                  | GALLONS |                      |

Caller Remarks:

unknown amount of hds– hydrogen sulfide – being investigated by the coast guard

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIPPLE CONSTRUCTION COMPANY DEWATERING AREA THAT WAS ONCE A LANDFILL, PUMPING CEASED,FDNY DID PRESSURE FLUSH DUE TO READINGS ABOVE LEL

**Map Identification Number 224**      **APARTMENT BUILDING**      **Spill Number: 0610885**      **Close Date: 04/25/2007**  
 255 WEST END AVE      NEW YORK, NY      TT-Id: 520A-0090-375

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2475 feet to the WSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                   |                                      |
|-----------------------------------|-----------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: UNKOWN.                  | Spiller Phone:                       |
| Notifier Type: Other              | Notifier Name:                    | Notifier Phone:                      |
| Caller Name:                      | Caller Agency:                    | Caller Phone:                        |
| DEC Investigator: HRPATEL         | Contact for more spill info: MIKE | Contact Person Phone: (212) 712-1609 |

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/27/2006 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

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Caller Remarks:

HAS BEEN CONTAINED; NOT YET CLEANED;

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DEC Investigator Remarks:

12/28/06–Hiralkumar Patel. spoke with Noel at Stuyvesant fuel. he noticed oil coming through wall where fill line runs. believe fill line leak. Stuyvesant spred speedy dry and absorbent pads. they will not do any further cleanup as it is from faulty equipment.

12/29/06–Hiralkumar Patel. visited site. site has 5000 gal tank sitting on concrete block, about 1–2 ft higher than floor, inside concrete vault with access. observed oil stain on wall where fill line enters into tank room. all lines are aboveground except part of fill line that runs under sidewalk. looks like fill line has leak for long time. no oil stains on floor around tank except one area, which is left side of tank room entrance. absorbent pads were there and found free product under it. there is small window on wall right above this oil stain and found small opening between tank room and boiler room wall. found free product in this small opening also.

spoke with Jacob Sirotkin, property manager. Jacob told that he has hired ABC Tank for spill cleanup. he already asked his oil company to stop further delivery. Jacob mentioned that his plumber will open sidewalk and will replace leaking fill line and then ABC will remove contaminated material from site. told Jacob that as tank sitting on concrete, the Department requires tank test. also told him about oil stain and free product on tank room floor and between tank room and boiler room wall must be removed properly.

PBS#: 2–211559

super of building: Rony (212) 712–1609

Jacob Sirotkin (property manger) Jordan Cooper Associates, Inc. 7 Penn Plaza 14th Floor New York, NY 10001 Ph. (212) 613–4611 (O)

(917) 295–7855 (C) FAX (212) 888–0414 Email: jacob@jordancooper.com

received call from Donna (PH. 718–272–2800, FAX 718–272–3147) from ABC tank. explained her about required work. she is preparing proposal for required work and if get approval, will start work on 01/02/07.

sent CSL to Jacob requiring tank test and contaminated soil/material removed inside tank room as well as outside along fill line. letter faxed to Donna at ABC tank. letter emailed to Jacob alongwith PBS correction form as mailing address for management office has been changed.

1/11/07 – Austin – Temporarily assigned to Vought, in Patel's absence

04/05/07–Hiralkumar Patel. left message for Jacob and asked him to submit report by 04/13/07. spoke with Donna at ABC. as per Donna, another person/company replaced leaking fill line, but they did removed 21 drums (18 along fill line on sidewalk and 3 from inside tank room) of contaminated soil and took endpoint samples. endpoint samples are clean. tested tank and found tight. ABC will release entire report as they get paid for work done.

04/12/07–Hiralkumar Patel. received fax from Donna from ABC containing tank test and sample analyticals. tank test found tight tank system. sample analyticals shows soil sample taken at vent pipe. spoke with Donna at ABC. explained her that problem was with fill line as it was leaking. so DEC needs soil sample at fill port and along fill line, not at vent pipe. also asked Donna to send detailed report with observations during line repair, scaled site plan with piping locations, sample location, excavation depth, sample depth etc.

04/24/07–Hiralkumar Patel. received fax from Donna from ABC Tank containing drawing showing sample location. they took soil sample along fill line. no word about depth of excavation, depth of soil sample at fill line, reason for oil found on floor along wall between tank and boiler room. spoke with Jacob. he will meet at site.

04/25/07–Hiralkumar Patel. visited site on 04/24/07. met Jacob on-site. oil stain found on wall where fill line enters into building. area, where oil found along wall between tank and boiler room, has cleaned up and that is lowest part in tank room. no more oil found in that area. based on site observations and oil stains on tank room floor; oil, that was found on floor along wall, could have accumulated in the area that was leaked into tank room from leaking fill line. as per Jacob, ABC dug about 8 ft deep along entire fill line and removed contaminated soil. also they powerwashed tank room, twice. no odors inside tank room.

based on observations during site visit and available documents, case closed.

**Map Identification Number 225**



**SERVICE BOX #15862**

W. 90TH ST./COLUMBUS AVE.

MANHATTAN, NY

**Spill Number: 0405889**

**Close Date: 12/21/2004**

TT-Id: 520A-0090-836

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 2478 feet to the NNE

**ADDRESS CHANGE INFORMATION**

Revised street: W 90TH ST / COLUMBUS AVE

Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Other

Caller Name: TOM MARCINEK

DEC Investigator: SKARAKHA

Spiller: UNKOWN.

Notifier Name: MR. CURTIS

Caller Agency: CON ED

Contact for more spill info: ERT DESK

Spiller Phone:

Notifier Phone: (212) 580-6763

Caller Phone: (212) 580-6763

Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date        | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 08/30/2004        |                     | UNKNOWN          | NO                      |                    | NO                  |                      |
| Material Spilled  | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| UNKNOWN PETROLEUM | PETROLEUM           | 1.00             | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

One Gal. of material on 50 gal of water. Clean up pending lab results. ConEd#155122

DEC Investigator Remarks:

e2mis no 155122

Meledez and crew discovered fuel oil had been spilled or had leaked from a from an unknown 3rd party source. He goes on to report that the fuel oil has leached down from street into service box and looks like approx. 1 gallon on top of approx. 50 gallons of water. At this time no oil truck is in the area, but he does feel that this is a 3rd party spill due to the smell of the fuel. Two samples taken PCB & ID, & Flash Point. Clean up pending lab results.

Lab Sequence Number: 04-06889-001 – PCBs < 1 ppm, Flash Point, PMCC > 140 deg F

9/24 AT 12:00 On 9/24 at 11:40 Maiurro # 16702 of UG reported to me that the cleanup completed as of 11:00 HRS on 9/24/2004. PPe's were disposed as solid waste. The tanker removed 200 gallons of mixed liquid. The structure was double-washed with SLIX . The Environmental tag # 18517 was removed.

Map Identification Number 226



IFO

562 WEST END AV

MANHATTAN, NY

Spill Number: 9612897

Close Date: 08/14/2012

TT-Id: 520A-0092-394

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 2514 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN  
 Notifier Type: Local Agency  
 Caller Name: ALBERT GORDON  
 DEC Investigator: SFRAHMAN

Spiller: UNKNOWN BUT BELIEVED TO B  
 Notifier Name: CONTRACTORS  
 Caller Agency: NYC DEP  
 Contact for more spill info: CALLER

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (718) 595-4714  
 Contact Person Phone: (718) 595-4714

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 01/30/1997 |                     | UNKNOWN        | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

contractors found oil coming out of the ground while they were digging – dep doing investigation at this time

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was M TIBBE Sondra Martinkat – 1/31/97. Conversation with Al Gordon, DEP. Cracked fill line. Delivery on the 23rd. Odors bad.

Management Company Argo Corp 10 Columbus Circle NY, NY 10019 212-873-4844

Superintendent Luciano 212-873-4888

4k tank – took 2k during delivery.

8/2/05– temporary transferred lead to Woodward

\*\* No further information available regarding the incident. More spill is too old. Therefore concerned person could not be contacted. Spill administratively closed.\*\*

Spill transferred back to Region 2

3/10/08 – Austin – Spill assigned to Ahmed for followup – end

10/27/11 – Austin – Spill Transferred from Ahmed to Rahman – end

**Map Identification Number 227** **562 WEST END AVE**  
 562 WEST END AVE

MANHATTAN, NY

**Spill Number: 1405674**

**Close Date: 10/09/2014**  
 TT-Id: 520A-0300-680

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2514 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: DEC  
 Caller Name:  
 DEC Investigator: SXMAHAT

Spiller: PETER SOLER – PETER SOLER  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: PETER SOLER

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (347) 408-9201

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 08/22/2014 |                     | UNKNOWN        | NO                      | NO                  |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

**Caller Remarks:**

Contaminated soil found during the pipe enhancement project performed by Con Ed.

**DEC Investigator Remarks:**

Contaminated soil found during the pipe enhancement project performed by Con Ed.

8/25/14: Mahat DEC Mahat responded to the site to investigate reported historical spill on the site. Contaminated soil was observed on the vicinity of the fill port. DEC partnered with Super of the building to perform a pressure test on the fill line. A spill will call in the property based on the site visit. Spill is coressed referenced to spill # 1405504.

Peter Soler

\*\*\*\* Super attendant 347.408.9201

8/26/14: Mahat DEC Mahat contacted Mr. Soler inquiring about the process on pressure test. He mentioned a boiler company is schedule to have the fill line presseure test on 8/27/14.

09/02/14: Mahat DEC Mahat received an email from Mr. Higgins mentioning that the pressure test was done on the fill line and it passed the test. Below is her email :

Santosh- We have been advised by Riteway Tank Maintenance Corp that the oil fill line has successfully passed the pressure test of the fill line at the above captioned location. I am sending a copy of the Affidavit from Riteway under separate cover. Thank you. Marina

The fill line test is uploaded on the D2. Hence, the spill was not fresh and this was a historical spill and no further action is required by the Department. No sample were taken and mechanical room was in the best shape possible. Based on the fill observation, test result and background search, the spill will be closed in the database. DEC Demeo was also involved in the case as a mentor. No more requirements by the Department.

**Map Identification Number 228**

**EXCAVATION SITE**

**Spill Number: 1405504**

**Close Date: 10/06/2014**



562 WESTEND AVE

MANHATTAN, NY

TT-Id: 520A-0302-180

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2514 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: 562 WEST END AVE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Responsible Party  
 Caller Name:  
 DEC Investigator: RWAUSTIN

Spiller: ERT – CON EDISON  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: ERT

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (212) 580-8383

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/20/2014 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 1.50             | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

Discovery of unknown oil. Cleanup is pending. No waterways or sewer involved.

**DEC Investigator Remarks:**

emis 237867

8/15/14: Mahat DEC Mahat responded to the site to investigate reported historical spill on the site. Contaminated soil was observed on the vicinity of the fill port. DEC partnered with Super of the building to perform a pressure test on the fill line. A spill will call in the property based on the site visit. New spill # 1405674 will be coressed referenced to this spill.

Peter Soler

\*\*\*\* Super attendant 347.408.9201

Con Edison Point of Contact : Wayne Simmonds 917.577.1321

\*\*\*\* Filed Supervisor

10/6/14 – Austin – Con Ed dicovered fill line spill contamination in soil while conducting utility excavation,in fron of 562 West End Ave. – Con Ed completed work, and disposed of material they removed – Spill associated with the fill line is # 1405674 – See document files for further information – This spill closed – end

**Map Identification Number 229** **AMSTERDAM AV** **Spill Number: 9612167** **Close Date: 10/03/1997**  
 **BET W.89TH & W.90TH ST** **MANHATTAN, NY** **TT-Id: 520A-0102-208**

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (4)  
 Approximate distance from property: 2528 feet to the N

**ADDRESS CHANGE INFORMATION**

Revised street: AMSTERDAM AVE / W 89TH ST / W 90TH ST  
 Revised zip code: 10024

Source of Spill: GASOLINE STATION OR PBS FACILITY Spiller: UNKNOWN Spiller Phone:  
 Notifier Type: Other Notifier Name: KBS Notifier Phone:  
 Caller Name: MARCO PEDONE Caller Agency: ENVIRONMENTAL MANAGEMENT Caller Phone: (914) 345-1498  
 DEC Investigator: O'DOWD Contact for more spill info: MARCO PEDONE Contact Person Phone: (914) 345-1498

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date                                                                                                  | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|-------------------------------------------------------------------------------------------------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/09/1997                                                                                                  |                     | UNKNOWN          | YES                     |                    | NO                  |                      |
| Material Spilled                                                                                            | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| OTHER                                                                                                       | OTHER               | 0                | GALLONS                 | 0                  | GALLONS             | SOIL                 |
| The following material(s) was dropped or revised by the NYS DEC. Call Toxics Targeting for more information |                     |                  |                         |                    |                     |                      |
| OTHER PETROLEUM                                                                                             | PETROLEUM           | 0                | GALLONS                 | 0                  | GALLONS             |                      |

Caller Remarks:

CALLER REPORTS KBS IS DOING EXCAVATION WORK AND ENCOUNTERED CONTAMINATED SOIL / CALLER BELIEVES SITE IS OLFD GAS STATION / THERE ARE STILL SEVERAL UNDERGROUND TANKS / CALLER WILL BE DOING FURTHER TESTS

-----  
 DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

**The following DEC Investigator Remarks were available prior to 1/1/2002:**

SPOKE TO MR. PEDONE, JUST SOIL CONTAMINATION SO FAR. NO HIM ABOUT PBS OBLIGATION. HE SAID, HE WILL BE AT THE SITE EARLY TOMORROW MORNING. FEBRUARY 7, 1997 TO APRIL 11, 1997- APPROX. 7,400 TONS OF NON-HAZ. PETROLEUM CONTAMINATED SOILS WERE REMOVED FROM THE SITE. THREE USTS WERE REMOVED ALSO. 1X2000 GAL UST, 1X550 GAL UST AND ANOTHER 550 GAL UST. A VAPOR BARRIER WAS LAIN ACROSS THE ENTIRE SITE. THIS VAPOR BARRIER SHOULD BE EFFECTIVE TO MITIGATE ANY UPWARD MOBILITY OF VOLATILE VAPORS, IF ANY ARE PRESENT. DOCUMENTATION SHOWING BEDROCK TO BE COMPETENT AND NO WATER ENCOUNTERED DURING EXCAVATION ACTIVITIES.

|                                                                                  |                      |                                   |                              |                               |
|----------------------------------------------------------------------------------|----------------------|-----------------------------------|------------------------------|-------------------------------|
| <b>Map Identification Number 230</b>                                             | <b>74 WEST 68 ST</b> |                                   | <b>Spill Number: 8906472</b> | <b>Close Date: 05/17/1994</b> |
|  | 74 W 68TH ST         | MANHATTAN, NY                     |                              | TT-Id: 520A-0095-743          |
| <b>MAP LOCATION INFORMATION</b>                                                  |                      | <b>ADDRESS CHANGE INFORMATION</b> |                              |                               |
| Site location mapped by: PARCEL MAPPING (1)                                      |                      | Revised street: NO CHANGE         |                              |                               |
| Approximate distance from property: 2550 feet to the SSW                         |                      | Revised zip code: NO CHANGE       |                              |                               |
| Source of Spill: TANK TRUCK                                                      |                      | Spiller: EMPIRE STATE FUEL        | Spiller Phone:               |                               |
| Notifier Type: Citizen                                                           |                      | Notifier Name:                    | Notifier Phone:              |                               |
| Caller Name: P O FUSCO                                                           |                      | Caller Agency: USCG               | Caller Phone: (212) 668-7920 |                               |
| DEC Investigator: SULLIVAN                                                       |                      | Contact for more spill info:      | Contact Person Phone:        |                               |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.  
 Class: Willing RP - DEC Field Response - Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/02/1989 | 05/17/1994          | OTHER          | UNKNOWN                 |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units  | Quantity Recovered | Units  | Resource(s) Affected |
|------------------|----------------|------------------|--------|--------------------|--------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 50.00            | POUNDS | 0.00               | POUNDS | SEWER                |

Caller Remarks:

WHILE DELIVERING FUEL TO CUSTOMER, HOSE CAME LOOSE AND OIL WAS SPRAYED OVER SIDEWALK, SOME PRODUCT RUN-OFF TO SEWER.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 231

SPILL NUMBER 0202046

Spill Number: 0202046

Close Date: 11/14/2003



574 WEST END AV

MANHATTAN, NY

TT-Id: 520A-0101-157

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2570 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Local Agency  
 Caller Name: TONY RIVERA  
 DEC Investigator: JXZHAO

Spiller: UNKNOWN  
 Notifier Name: MANUEL VALADINE  
 Caller Agency: ROTO ROOTER  
 Contact for more spill info: MANUEL VALADINE

Spiller Phone:  
 Notifier Phone: (212) 595-8599  
 Caller Phone: (718) 981-3808  
 Contact Person Phone: (212) 595-8599

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 05/27/2002 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SEWER                |

Caller Remarks:

CALLER WORKS FOR ROTO ROOTER HIS BEEPER 917-491-5430 – CALLER STATES HE WAS CALLED FOR A SEWER PROBLEM IN THE BASEMENT OF TEH ABOVE APARTMENT COMPLEX, AND AS HE WAS CLEARING THE PIPE A LARGE AMOUNT OF THICK POSS #6 OIL CAME OUT OF THE SEWER LINE – IT IS UNKNOWN WHERE THE OIL IS COMING FROM – THE WATER AND FURNACE TO THE BLDG HAS BEEN SHUT DOWN

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was ZHAO/TIPPLE Referred to DEP.

**Map Identification Number 232** **IN ROADWAY**  
 20 W. 68TH ST

MANHATTAN, NY

**Spill Number: 0308676**

**Close Date: 11/17/2003**  
 TT-Id: 520A-0097-224

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2598 feet to the SSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                             |                                  |                                      |
|-----------------------------|----------------------------------|--------------------------------------|
| Source of Spill: UNKNOWN    | Spiller: UNKNOWN – Unknown       | Spiller Phone:                       |
| Notifier Type: Local Agency | Notifier Name: THERIN COTTON     | Notifier Phone: (212) 689-1520       |
| Caller Name: THERIN COTTON  | Caller Agency: DEP NYC           | Caller Phone: (212) 689-1520         |
| DEC Investigator: MXTIPPLE  | Contact for more spill info: UNK | Contact Person Phone: (000) 000-0000 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 11/15/2003 |                     | UNKNOWN        | NO                      |  | NO                  |  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:  
 caller reporting for citizen who reported odor of petroleum – unk source – unk source – material was cleaned up

**DEC Investigator Remarks:**  
 Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIPPLE

**Map Identification Number 233** **1995 BROADWAY**  
 1995 BROADWAY

MANHATTAN, NY

**Spill Number: 0407958**

**Close Date: 09/06/2006**  
 TT-Id: 520A-0095-260

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 2625 feet to the SW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                        |                                             |                                      |
|----------------------------------------|---------------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: ROBERT TREBINO                     | Spiller Phone: (212) 284-3795        |
| Notifier Type: Other                   | Notifier Name: MARK SALAMACK                | Notifier Phone: (718) 624-4842       |
| Caller Name: MARK SALAMACK             | Caller Agency: PETROLIUM TANK CLEANERS      | Caller Phone: (718) 624-4842         |
| DEC Investigator: HRPATEL              | Contact for more spill info: ROBERT TREBINO | Contact Person Phone: (212) 284-3795 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/18/2004 |                     | OTHER          | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #4 FUEL OIL      | PETROLEUM      | 25.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

about 25 gallons spilled.spill hasnt been cleaned up yet.

DEC Investigator Remarks:

10/20/2004 Sangesland spoke to Mark at PTC. Cross ref prior spill #0105791 Sangesland requested PTC to perform a tank test on this tank.

12/19/05 Feroze. Spill is transferred from Ketani to Feroze.

12/21/05 Feroze. Talked with Mr. Robert Trebino, the property owner and sent him a letter to submit DEC Tank Test Result.

02/02/06. Feroze Called Mr. R. Trebino(212-284-3795) and left a message for him. PBS case of this site is # 2-112399. According to PBS documents they have one tank of 20000 gallons capacity and it is vaulted with access.

02/21/06. Feroze Called Mr. R. Trebino and left a message for him.

02/24/06. Feroze talked with Operator (212-362-1137) of that building. He told me that building Engr. will call me regarding the issue. Cross ref prior spill #0105791. Building Engr. told me to talk to Robert Trambino. 03/02/06 Feroze talked with Robert.

He is requested to submit the documents that he has repaired the tank and the system. Fax no of MR. ROBERT 212-742-2626.

03/15/06. Spill is transferred from Feroze to Kumer Patel.

03/28/06-Hiralkumar Patel. Left message for Robert, property manager and for Mark at Petroleum.

03/29/06-Hiralkumar Patel. Spoke with Mark at Petroleum. he told me that he visited site first in end of 2004. at that time he removed oil/water mix from tank room and he left. when he left site, it was required to wash that room. then Mark got call again

from this site in January this year. when Mark visited site again in Jan. 06, he found that room was flooded again with water having oil on top of it. Petroleum has sent out proposal for cleanup and the owner/manager was not agree with this proposal. Mark doesn't know after that. Spoke with Robert and he told me that the person handling environmental matter at this company is out for vacation and will be back on Mon Apr. 3.

03/30/06–Hiralkumar Patel. visited site at 10:00 AM. Met with Robert Trombino, manager of property and Miro Kormanik, super of building. super is working here for last five years. property has 20,000 gas tank in basement. tank is on legs and have access to bottom of tank. no significant oil on tank, means no leaks from tank. at the time of visit, little water was on floor. no signs of oil on remaining water. floor in in bad condition. one spot of concrete floor was popped up due to underground water pressure. as per super, water is coming into boiler room throughout the year through this open spot. the walls of tank room are in good condition except one location. tank room wall towards street side has approx. 10' long crack and this wall is closest side of building wall to the fill port. this crack is approx. 25' below street level. tank room ceiling is about 10' deep than street level. wall below crack has oil stain and it was shining at time of visit. but no odor in tank room. fill port is on 68th street about 8–10 ft away from building wall. when current super started working at this property, they had same situation of water and oil mix into tank room in 2001. at that time, DEP and fire department responded to site. DEP had took samples and found little oil floating on water. when they had problem in 2001, somebody tested tank system and found fill line was leaking. and they had replaced old fill line and put new line at different location approx. 5 ft away from old fill port. during replacement they have dug out some soil but didn't do any soil investigation. it looks like whatever oil they lost from old fill line leak was coming into tank room through that crack in wall. super doesn't know who removed that oil/water mix from location & tested system and replaced line in 2001. asked super to call back with this information. as per super, water keep coming into tank room after cleanup. Spoke with Mark at Petroleum. as per Mark, they had removed 3700 gal of oil/water mix in end of 2004. when he visited site in Jan. 2006, he found approx. same amount of water/oil at location. the level of oil/water mix was 6–8 inch. and as per property manager Mr. Trombino, nobody has contacted yet for cleanup of tank room after Jan. 2006. but when i visited site, it looks like somebody removed oil/water from location as no significant water level found in tank room. but when i entered into tank room, i found that tank room floor was wet and broken concrete on floor was soaked with water. Spoke with super and he told me that nobody cleaned room after Jan. and as per him there was no water upto 6–8 inch in tank room ever. as per super, water level raise upto 4 inch in lowest part of tank room which is under the tank. no odor complaints in building. super doesn't have daily inventory of oil usage. they order about 6500 gal each time and delivery frequency is depends on whether. they are using #4 heating oil, but PBS record shows #2 heating oil. asked super to submit PBS registration form with necessary corrections.

Discussed with DEC\_Austin. as per Austin, i asked Mr. Trombino to call city DEP to find out source of water coming into tank room and to workout to correct any defective water line under/near property. as per Austin, this tank would consider as AST as you can look under and around tank. he suggest me to ask property manager for line tests to find out is any line leaking or not.

Letter sent out to Mr. Trombino and faxed to Mr. Trombino and Mr. Kormanik asking for soil investigation at sidewalk on 68th street where fill port is and where fill pipe runs, tank test to confirm any leak and groundwater samples at sidewalk. letter faxed to manager and super.

Robert Trombino (property manager) Cammeby's Management Co LLC 45 Broadway 25th Floor New York, NY 10006 Ph. (212) 509–9797 Ext.3795 FAX (212) 509–5229

Miro Kormanik (super) Cammeby's Management Co LLC Ph. (212) 362–1159 FAX (212) 362–1491

04/06/06–Hiralkumar Patel. Received call from Abraham from NYCity tank test company (718–731–7011). he did tank test and tank

passed. he has replaced manhole gasket and petrometer. he will take required samples and will submit lab results to Department. Received fax from New York City Tank Testing Inc. showing tank passed in test.

04/21/06–Hiralkumar Patel. Received call from Abraham from NYCity Tank test company. he was suggesting to take groundwater sample from the inside of the building. and will take two soil samples from the location specified in letter.

05/16/06–Hiralkumar Patel. Spoke to Abraham at NYC Tank Test. they took samples on Mon. May 8, 2006 and waiting for lab results. will get lab results probably end of next week. will call once get lab results.

06/06/06–Hiralkumar Patel. Spoke to Abby. he doesn't get results yet. 06/12/06–Hiralkumar Patel. REceived fax from Abby, contains lab results. soil sample was taken next to the fill box at a depth of 3 ft. further penetration was not possible due to an underground vault. water sample was taken from under the tank room. water sample has naphthalene exceeding TGAM limit, but because of little exceedence, DEC Austin suggest to close the case. Spoke to Abby at NYC Tank testing. as per him, there is water table at about 12–15 ft below street level. building wall close to street side has 10 ft crack and it is about 25 ft below street level and as per Abby's information, this crack must be below water level. at time of site visit, i have observed oil stain below this crack.

Left message for Mr. Trombino to send final report. asked to clean all stains from wall and to seal all the cracks inside tank room. asked to send color photographs after cleaning and sealing of tank room.

06/16/06–Hiralkumar Patel. Received message from Mr. Trombino. Left message for Mr. Trombino. 07/10/06–Hiralkumar Patel. Left message for Mr. Trombino. 07/13/06–Hiralkumar Patel. received message from Berny (917–648–5551) from NYC Tank testing. spoke with Berny. they have cleaned wall stains and sealed it. he will check about floor and once done will send final closure report.

08/10/06–Hiralkumar Patel. spoke with Berny. he will send final report in next week. 08/23/06–Hiralkumar Patel. spoke with Berny. he has got final disposal manifest and will send final report in couple of weeks. 08/30/06–Hiralkumar Patel. received letter report through fax from Mr. Bauer from NY City Tank Testing. abstract: – found manhole gasket defective. a new gasket was installed and system was retested and passed – crack in the foundation wall was repaired by chipping 4–6 inches (in depth) of the wall then cemented and water proofed.

found another open spill case at the same site for incident of water flood in 2001. spill # is 0105791. Qasim Abidi in remediation group is working on this old case.

09/06/06–Hiralkumar Patel. received photographs from NYC Tank Testing. based on available information, case closed. refer old spill# 0105791.

09/12/06–Hiralkumar Patel. sent out NFA letter on owner's request. sent copy of letter to Bernie at NYC Tank TEsting and to Qusim at DEC Remediation who was handling case #:0105791.



**CLOSED STATUS HAZARDOUS SPILLS – MISC. SPILL CAUSES – EQUIPMENT FAILURE, HUMAN ERROR, TANK OVERFILL, DELIBERATE SPILL, TRAFFIC ACCIDENT, HOUSEKEEPING, ABANDONED DRUM, VANDALISM AND STORMS – WITHIN 1/2 MILE SEARCH RADIUS.**  
 All spills mapped and profiled within 1/8 mile. Between 1/8 mile and 1/2 mile search radius, spills reported to be greater than 100 units and spills reported in the NYSDEC Fall 1998 MTBE Survey are mapped and profiled. Spills reported to be less than 100 units are listed in a table at the end of this section.

PLEASE NOTE: \* Compass directions can vary substantially for sites located very close to the subject property address.

Map Identification Number 234

VAULT 7264

Spill Number: 0505106

Close Date: 01/10/2006



COLUMBUS AV AT W 79 ST

MANHATTAN, NY

TT-Id: 520A-0097-844

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 50 feet to the W\*

ADDRESS CHANGE INFORMATION

Revised street: COLUMBUS AVE / W 79TH ST  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Responsible Party  
 Caller Name: MARK SCHLEGEL  
 DEC Investigator: GDBREEN

Spiller: ERT – CON ED  
 Notifier Name: MR. MORAN  
 Caller Agency: CONED  
 Contact for more spill info: ERT DESK'

Spiller Phone: (212) 580-8383  
 Notifier Phone: (212) 580-6763  
 Caller Phone: (212) 580-8383  
 Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 07/28/2005 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIELECTRIC FLUID | PETROLEUM      | 2.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

NO TO ALL 5 QUESTIONS. CLEAN UP PENDING. CON ED REF # 160095. SAMPLE TAKEN.

DEC Investigator Remarks:

160095.000

7-28-05 @ 03:14. S Asfour # 49908 reports that while inspecting v7264 w/s columbus av 50' n/o w 79 st, he discovered 2 gallons of transformer had leaked from the transformer onto the concrete floor and into the sump pit. There was or is no smoke or fire involved. No sewer or waterway affected. No injuries and weather had no affect. Account # w3282 is being used for this incident. There is a drip rate of 1 drop per 10 seconds coming from the throat of the transformer. No measuring device was used to detrmine the amount of the spill. The trap was checked and there is no evidence of a release outside of the structure. Source of the spill is the transformer and the cause is a leak. No private property affected. Environmental yellow tag # 41945 was applied. Water is standing. No visual water movement. Sump pump was found unplugged. No substantial cracks were observed. 1 liquid sample was taken by S Asfour # 49908 from the spill for pcb. Sample priority e . Chain of custody # dd13320. Oil absobent pads were applied to the spill to contain. Cleanup is pending deenergization of equipment.....J Moran # 01182

**Map Identification Number 235** **COLUMBIS AVE**  
 W. 78TH ST

MANHATTAN, NY

**Spill Number: 0101318**

**Close Date: 05/04/2001**  
 TT-Id: 520A-0089-887

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 51 feet to the SW\*

**ADDRESS CHANGE INFORMATION**

Revised street: COLUMBUS AVE / W 78TH ST  
 Revised zip code: NO CHANGE

Source of Spill: TANK TRUCK  
 Notifier Type: Local Agency  
 Caller Name: CHEREELLE MAYFIELD  
 DEC Investigator: MXTIPPLE

Spiller: UNKNOWN – Unknown  
 Notifier Name: MANHATTEN FD  
 Caller Agency: NYC DEP  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone: (212) 570-4300  
 Caller Phone: (718) 595-6777  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 05/03/2001       |                     | EQUIPMENT FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| DIESEL           | PETROLEUM           | 50.00             | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

**Caller Remarks:**

tank truck is leaking on the street  
 fd is on scene req a call back to the fire dept

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIPPLE FDNY ON SCENE VAC TRUCK AND SPEEDY DRY REMOVED MOST OF THE FUEL IOL FROM THE PAVEMENT SANITATION SANDED AND SWEEPED THE REMAINING OIL FROM THE ROADWAY

MOISHA MOVING TRUCK WAS THE SOURCE AS PER FDNY

Map Identification Number 236

SPILL NUMBER 9906118

Spill Number: 9906118

Close Date: 08/22/2003



66 WEST 77TH ST

MANHATTAN, NY

TT-Id: 520A-0092-639

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 143 feet to the SW\*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING

Notifier Type: Other

Caller Name: ROBERT CABASSA

DEC Investigator: RWAUSTIN

Spiller: SERGIO

Notifier Name:

Caller Agency: M & B TRUCKING

Contact for more spill info: SERGIO

Spiller Phone: (212) 362-2956

Notifier Phone:

Caller Phone: (718) 328-3275

Contact Person Phone: (212) 362-2956

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 08/23/1999 |                     | TANK OVERFILL  | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 10.00            | GALLONS | 10.00              | GALLONS | SOIL                 |

Caller Remarks:

FAULTY GAUGE LED TO THE TANK BEING OVERFILLED. SPILLED ONTO SIDEWALK AND IS IN PROCESS OF CLEAN UP. EXPECTING TO RECOVER ALL MATERIAL

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was AUSTIN 8/22/03 - AUSTIN - CLOSED DUE TO MINOR NATURE OF SPILL EVENT - ORIG. ASSIGNED TO ROMMEL - END

**Map Identification Number 237** **PVT DWELLING/APT. COMPLEX** **Spill Number: 1111702** **Close Date: 01/09/2012**  
 45 WEST 81 ST NEW YORK, NY TT-Id: 520A-0269-294

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 155 feet to the NE\*

**ADDRESS CHANGE INFORMATION**

Revised street: 45 W 81ST ST  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: smsanges

Spiller: G& D TRANSPORTATION  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: AL WOODWORTH

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 01/04/2012 |                     | HUMAN ERROR    | NO                      |  |                     |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 3.00             | GALLONS | 0.00               | GALLONS |                      |

**Caller Remarks:**

spill to paved surface/clean up crew en route

**DEC Investigator Remarks:**

Overfill shot out vent pipe. 2-3 gal onto sidewalk. Company did cleanup. No drains or soil impacted. Cleanup completed. spill closed.

**Map Identification Number 238** **EXCELSIOR HOTEL** **Spill Number: 0013297** **Close Date: 09/15/2003**  
 45 WEST 81ST STREET MANHATTAN, NY TT-Id: 520A-0091-204

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 155 feet to the NE\*

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                        |                                        |                                      |
|----------------------------------------|----------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: IVAN – EXCELSIOR HOTEL        | Spiller Phone: (212) 362-9200        |
| Notifier Type: Other                   | Notifier Name: IVAN                    | Notifier Phone: (212) 362-9200       |
| Caller Name: ISAAC MUNGRA              | Caller Agency: PETROLEUM TANK CLEANERS | Caller Phone: (718) 624-4842         |
| DEC Investigator: RWAUSTIN             | Contact for more spill info: IVAN      | Contact Person Phone: (212) 362-9200 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 03/20/2001 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #6 FUEL OIL      | PETROLEUM      | 50.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

LEAK FROM FILL LINE. SPILLED INTO CONCRETE BASEMENT. SPILLER HAS BEEN GIVEN PRICES FOR CLEAN UP AND REPAIRS. NO CLEAN UP OR REPAIRS AT THIS POINT.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was AUSTIN 03/20/2001 Spoke to Ivan Weiner at the Hotel – 212-362-9200. He hired Petroleum Tank Cleaners to clean spill. No drains, oil contained in tank room. No impact to people in hotel.

9/15/03 – AUSTIN – SPILL CONTAINED IN BASEMENT, NO FURTHER ACTION NEEDED FROM DEC – CLOSED IN DATABASE – ORIG. ASSIGNED TO ROMMEL – END

**Map Identification Number 239** **430 COLUMBUS AVE**  
 430 COLUMBUS AVE

MANHATTAN, NY

**Spill Number: 9608499**

**Close Date: 10/08/1996**  
 TT-Id: 520A-0092-361

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 164 feet to the N\*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER Spiller: STELLAR MANAGMENT Spiller Phone: (212) 873-0955  
 Notifier Type: Other Notifier Name: DOMINICK AGOSINO Notifier Phone:  
 Caller Name: JIM CAREY Caller Agency: CASTLE OIL CORPORATION Caller Phone: (718) 579-3414  
 DEC Investigator: SMMARTIN Contact for more spill info: Contact Person Phone: (212) 873-0955

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 10/08/1996 |                     | TANK OVERFILL  | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #2 FUEL OIL      | PETROLEUM      | 20.00            | GALLONS | 20.00              | GALLONS | SOIL                 |

Caller Remarks:

storage tank overfill – spill has been cleaned up

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was MARTINKAT

**Map Identification Number 240** **430 COLUMBUS AVE**  
 430 COLUMBUS AVE

**Spill Number: 9607683** **Close Date: 09/18/1996**  
 MANHATTAN, NY TT-Id: 520A-0092-355

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 164 feet to the N\*

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: TANK TRUCK Spiller: JANET MATOS – CASTLE OIL COMPANY Spiller Phone: (718) 579-3413  
 Notifier Type: Responsible Party Notifier Name: JANET MATOS Notifier Phone: (718) 579-3413  
 Caller Name: JANET MATOS Caller Agency: CASTLE OIL COMPANY Caller Phone: (718) 579-3413  
 DEC Investigator: SIGONA Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 09/18/1996 |                     | TANK OVERFILL  | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 10.00            | GALLONS | 10.00              | GALLONS | SOIL                 |

Caller Remarks:

tank overfill onto concrete

spill was contained clean up almost complete

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 241** **SPILL NUMBER 9802899** **Spill Number: 9802899** **Close Date: 03/03/2003**  
 101 WEST 78TH ST NEW YORK, NY TT-Id: 520A-0092-505

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 164 feet to the WSW\*

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                  |                                      |
|-----------------------------------|----------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: MYSTIC OIL              | Spiller Phone:                       |
| Notifier Type: Responsible Party  | Notifier Name: SAL               | Notifier Phone: (718) 932-9075       |
| Caller Name: FRAN ARCHEY          | Caller Agency: A L EASTMOND      | Caller Phone: (718) 378-7000         |
| DEC Investigator: TOMASELLO       | Contact for more spill info: SAL | Contact Person Phone: (718) 932-9075 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 06/04/1998 |                     | TANK OVERFILL  | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 150.00           | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

CALLER REPORTING OVERFILL OF TANK. CLEAN UP WILL BEGIN UPON ARRIVAL OF CREW.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

**The following DEC Investigator Remarks were available prior to 1/1/2002:**

SAME AS 9802892  
 - FRAN CALLED AL EASTWOOD 135  
 - SPILL OVER 200 GALLONS IN FRONT OF BUILDING. CAME OUT VENT AND MANHOLE.IN STREET AND IN TANK ROOM. EASTMOND CLEANING FOR MYSTIC.  
 - FAX TO ECS

|                                                                                                                                            |                                        |                                                                                               |                              |                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------|
| <b>Map Identification Number 242</b><br>                   | <b>APARTMENT BLDG</b><br>101 W 78TH ST | NEW YORK CITY, NY                                                                             | <b>Spill Number: 9802892</b> | <b>Close Date: 03/03/2003</b><br>TT-Id: 520A-0092-504 |
| <b>MAP LOCATION INFORMATION</b><br>Site location mapped by: PARCEL MAPPING (1)<br>Approximate distance from property: 164 feet to the WSW* |                                        | <b>ADDRESS CHANGE INFORMATION</b><br>Revised street: NO CHANGE<br>Revised zip code: NO CHANGE |                              |                                                       |
| Source of Spill: COMMERCIAL/INDUSTRIAL                                                                                                     | Spiller: UNK - APARTMENT BLDG          | Spiller Phone:                                                                                |                              |                                                       |
| Notifier Type: Other                                                                                                                       | Notifier Name: TOM DERITA              | Notifier Phone: (718) 932-9075                                                                |                              |                                                       |
| Caller Name: TOM DERITA                                                                                                                    | Caller Agency: MYSTIC                  | Caller Phone: (718) 932-9075                                                                  |                              |                                                       |
| DEC Investigator: TOMASELLO                                                                                                                | Contact for more spill info: UNK       | Contact Person Phone: (000) 000-0000                                                          |                              |                                                       |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Unknown RP - DEC Field Response - DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 06/04/1998 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 200.00           | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

GAUGE IS FAULTY CAUSING SPILL INTO ALLEY WAY--SPILL CREW HAS BEEN DISPATCHED FOR CLEANUP.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

Map Identification Number 243

**APT. BUILDING**  
44 WEST 77TH ST

MANHATTAN, NY

Spill Number: 0805295

Close Date: 08/12/2008  
TT-Id: 520A-0220-540



MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 166 feet to the SSW\*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
Notifier Type: Other  
Caller Name:  
DEC Investigator: smsanges

Spiller: MR. CHAFETZ - APT. BUILDING  
Notifier Name:  
Caller Agency:  
Contact for more spill info: MR. CHAFETZ

Spiller Phone:  
Notifier Phone:  
Caller Phone:  
Contact Person Phone: (212) 396-8267

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 08/07/2008 |                     | EQUIPMENT FAILURE | NO                      |  |                     |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 10.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

FILL LINE FAILURE; CLEAN UP IN PROGRESS AND REPAIR IN PROGRESS AS WELL;

DEC Investigator Remarks:

Leak from fill line into vault room. Room and spill were contained. No drains, no soil. PTC replaced fill line. All work complete. 2 drums of material removed & disposed.

**Map Identification Number 244**

**BASEMENT**

**Spill Number: 1310806**

**Close Date: 05/27/2014**



35 WEST 81ST ST

MANHATTAN, NY

TT-Id: 520A-0297-240

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 172 feet to the NE\*

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Other

Caller Name:

DEC Investigator: HRPATEL

Spiller: UNKNOWN

Notifier Name:

Caller Agency:

Contact for more spill info: DAVID KAHN

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: (516) 546-1100

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 02/12/2014 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #6 FUEL OIL      | PETROLEUM      | 15.00            | GALLONS | 0.00               | GALLONS |                      |

**Caller Remarks:**

leaking line. Clean up unknown

**DEC Investigator Remarks:**

02/14/14--Hiralkumar Patel. alternate address: 35 to 39 W 81st Street

PBS #: 2-063673. as per PBS record, the site has one 7,500 gal #6 oil AST on saddles, in-service.

other spill # 0401022 was reported on 04/29/2004 due to 3 gal of fuel spilled onto about 20 gal of water in ConEd service box. clean up done by ConEd. case closed.

81st Dwellers Inc.

\*\*property owner\*\* c/o Maxwell Kates, Inc. 9 East 38th Street, 6th Floor New York, NY 10016 Attn.: Mitchell Berg PH. (212) 684-8282

2:01 PM:- spoke with Bill at Preferred. they found #6 oil spill onto tank room floor, due to leak in remote fill line. oil seepage was found in area where fill line enters the building. further investigation will be done, once sidewalk opening permit is received. the site has one 7,000 gal #6 oil AST on saddles. Bill noted about 12 ft by 12 ft area of oil spill onto tank room floor. loose oil in tank room has been cleaned up using absorbent.

2:58 PM:– sent letter to Ms. Berg requiring investigation for contamination, endpoint samples and tank system tightness test. asked her to submit report by the end of 04/30/14. letter emailed to Bill.

03/04/14–Hiralkumar Patel. 10:55 AM:– received call from Bill. he mentioned that during cleanup of loose oil from tank room floor, the contractor (Branch Restoration – an asbestos abatement company) found leak from tank itself. Bill mentioned that contractor was in process of removing oil from the tank. asked Bill to confirm product removal from the tank. he will call back. he also mentioned that there is a scaffolding support column, right near where remote fill line is located. this scaffolding belongs to neighbouring building. informed Bill that the Department requires investigation/cleanup of any contaminated material due to leak in fill line. suggested him to excavate small trench, only if it is safe, to remove remote fill line. otherwise case will remain open until required investigation/cleanup is performed. Bill will talk to property manager/owner regarding possibility of fill line excavation.

03/07/14–Hiralkumar Patel. 2:15 PM:– received call from Bill. he confirmed that a temp tank has been installed on street and crew is pumping out oil from leaking tank today. Bill mentioned that the neighbour, whose scaffolding column is near the leaking fill line location, refused to move the scaffolding without a correspondence from DEC. asked Bill to provide neighbour's contact information.

03/10/14–Hiralkumar Patel. received email from Bill (at 4:58 pm on 03/07/14). he mentioned that all the usable oil has been transferred out of the AST into temporary tank. Bill also sent contact info for neighbouring hotel manager.

Ivan Weiner ~ Hotel Manager Excelsior Hotel 45 W 81st Street New York, NY 10024 PH. (212) 362–9200

03/18/14–Hiralkumar Patel. 9:57 AM:– received call from Bill. he mentioned that the existing scaffolding located on fill line area will be removed and a new scaffolding will be placed on 03/20/14. as such, fill line work will happen tomorrow and contractor will excavate and remove leaking fill line and any associated contamination.

03/19/14–Hiralkumar Patel. 10:30 AM:– visited site. met Dennis (516–672–2308) from Preferred. due to gas line in area and support for temporary supply/return lines from temp tank on street, he was waiting for guidance from his supervisor. suggested him to talk to ConEd, if needed. inspected tank room. the tank is aboveground, sitting on floor. no odors noted around tank. inspected area where fill/vent line crosses the building's southern foundation wall. found oil seepage from fill line area. noted a gas line, about 1 ft below the fill/vent location. during site visit, spoke with Evan, manager of next door hotel. requested him to hold on to scaffolding installation in area of fill line work. he will inform the scaffolding company.

2:30 PM:– received call from Dennis. they opened two sidewalk flags located close to building. he found leak in fill line, along the building's foundation wall. asked him to confirm integrity of remaining portion of fill line, to the fill port.

03/20/14–Hiralkumar Patel. 1:05 PM:– received call from Bill. they found crack in fill line, along the building's foundation wall. they removed about 1 yard of contaminated soil. they dug down to 20 inches where bedrock was found. no more contamination observed in sidewall. as no signs of contamination noted in excavation's southern sidewall (towards fill port and street), they did not remove piece of fill pipe towards the fill port. endpoint samples have been submitted for analysis. Bill will submit report, once endpoint sample results are received. informed him to include information about condition of basement floor underneath the tank (once tank is removed) and observations during fill line excavation including information about piece of fill line left under the sidewalk.

05/12/14–Hiralkumar Patel. 3:20 PM:– spoke with Bill. he will review file and call back with update.

05/13/14–Hiralkumar Patel. 2:38 PM:– spoke with Bill. he mentioned that the tank is removed and will submit report by tomorrow.

05/20/14–Hiralkumar Patel. 4:21 PM:– received email from Bill including spill closure report.

05/27/14–Hiralkumar Patel. based on available information, case closed.

**Map Identification Number 245** **106 WEST 81ST ST/MANH** **Spill Number: 9007523** **Close Date: 10/10/1990**  
 106 WEST 81ST STREET NEW YORK CITY, NY TT-Id: 520A-0098-757

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 203 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: PETRO HEAT & POWER Spiller Phone:  
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:  
 Caller Name: JULIE O'BRIEN Caller Agency: PETRO HEAT & POWER Caller Phone: (718) 545-4500  
 DEC Investigator: WILSON Contact for more spill info: Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/09/1990 | 10/10/1990          | TANK OVERFILL  | UNKNOWN                 | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 1.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

SPEEDRY DRY APPLIED, PICKED UP & DISPOSED.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 246** **SPILL NUMBER 0200505**  
 25 W 81ST ST

MANHATTAN, NY

**Spill Number: 0200505**

**Close Date: 07/09/2003**  
 TT-Id: 520A-0091-329

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 242 feet to the NE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Other  
 Caller Name: NICK PASCAL  
 DEC Investigator: SMSANGES

Spiller:  
 Notifier Name:  
 Caller Agency: HESS  
 Contact for more spill info: LUKE

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (201) 489-5100  
 Contact Person Phone: (212) 874-1356

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 04/15/2002 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 5.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

the gadge at the apartment house is off by 900 gallons – the superintendent at the apartments is doing the clean up now

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SANGESLAND

**Map Identification Number 247** **64 WEST 82ND ST/MANH**  
 64 WEST 82ND STREET

MANHATTAN, NY

**Spill Number: 9000007**

**Close Date: 07/12/2006**  
 TT-Id: 520A-0091-746

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 252 feet to the NE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: Spiller Phone:  
 Notifier Type: Other Notifier Name: Notifier Phone:  
 Caller Name: RALPH NAPLATANO Caller Agency: BAERENKLAU OIL CO Caller Phone: (718) 647-9229  
 DEC Investigator: SXLASDIN Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 04/01/1990 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 5.00             | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

FUEL LINE IS LEAKING GOING TO THE FURNACE.

DEC Investigator Remarks:

7/12/06. 5 gallons spilled in 1990, close spill

**Map Identification Number 248** **55 WEST 76TH STREET** **NEW YORK, NY** **Spill Number: 9414562** **Close Date: 02/04/1995**  
 55 WEST 76TH STREET TT-Id: 520A-0092-144

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 253 feet to the SSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING Spiller: Spiller Phone: (212) 595-4275  
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:  
 Caller Name: MR. CULLEN Caller Agency: CASTLE OIL CORP. Caller Phone: (718) 823-8800  
 DEC Investigator: O'DOWD Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 02/03/1995       | 02/04/1995          | EQUIPMENT FAILURE | UNKNOWN                 |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 10.00             | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

PIPE CRACKED ON A 550 GAL. OIL TANK IN BASEMENT OF AN APARTMENT BLDG. FIRE DEPT. ON SCENE ALONG WITH CASTLE OIL REP.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

**The following DEC Investigator Remarks were available prior to 1/1/2002:**

10/10/95: This is additional information about material spilled from the translation of the old spill file: FUEL OIL.

**Map Identification Number 249**

**HOME/APT**  
74 WEST 82 ST



MANHATTAN, NY

**Spill Number: 1308427**

**Close Date: 07/08/2014**  
TT-Id: 520A-0293-430

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 253 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: 74 W 82ND ST  
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
Notifier Type: Other  
Caller Name:  
DEC Investigator: TJDEMEO

Spiller: 74 WEST 82 ST  
Notifier Name:  
Caller Agency:  
Contact for more spill info: TONY LARA

Spiller Phone:  
Notifier Phone:  
Caller Phone:  
Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 11/19/2013 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 20.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

spill to inside and outside/clean up pending

DEC Investigator Remarks:

11/20/13 TJD T/C with Anthony Lara of Riteway Tank – he states the spill was reported due to a preclosing walk-through of property this past Thursday (11/14/13) – pending real estate transaction. Report spill is suspected to be caused by overfill of 275 basement AST. Anthony Lara states the vent piping is dislodged from tank and there is contaminated sand on concrete floor around tank – no separate phase product is observed. The vent pipe outside has some dry staining on wall – appears historical. Petroleum odors are reported to exist inside structure. Riteway has not yet been retained for cleanup – will provide DEC update within a few days. No active leak.

7/8/14 TJD File review. Closure report has been received from Riteway Tank – as per report, spill cause was a faulty gauge on 275 AST basement tank. Riteway temporarily relocated tank to facilitate spill cleanup. Following the removal of contaminated absorbents from the concrete basement floor, Riteway proceeded with an investigation of subsurface soils followed by the removal of 21 drums of contaminated soils to approximate excavation dimensions of 5x7x3 ft bgs. Upon the completion of excavation, residual soils were screened with a PID until no further contamination was detected. Endpoint samples were collected from base/sidewalls of open excavation prior to backfill. A review of the laboratory data from the sampling event reveal all target analytes are within acceptable concentrations. All required closure documentation has been received and uploaded to DECDOCS. No further action is required. Spill closed.

**Map Identification Number 250** **57 W. 76TH STREET**  
 57 W. 76TH STREET

MANHATTAN, NY

**Spill Number: 9308078**

**Close Date: 09/29/1993**  
 TT-Id: 520A-0091-998

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 253 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Other  
 Caller Name: ABBY GOLDMAN  
 DEC Investigator: TOMASELLO

Spiller:  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (212) 874-1884  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date             | Date Cleanup Ceased             | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------------|---------------------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 09/27/1993             | 09/29/1993                      | HUMAN ERROR      | UNKNOWN                 |                    | NO                  |                      |
| Material Spilled       | Material Class                  | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #4 FUEL OIL<br>MERCURY | PETROLEUM<br>HAZARDOUS MATERIAL | -1.00<br>0       | GALLONS<br>UNKNOWN      | 0.00<br>0          | GALLONS<br>UNKNOWN  | SOIL<br>SOIL         |

Caller Remarks:

CLEANING BAVOMITEUE & LEAKED TO APARTMENT FLOOR PA NOTIFIED ON SCENE BUREAU OF HAZ WASTE HEALTH DEPT. ANALYSER READING TAKEN NEEDS CONTRACTOR & CALL BACK.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 251** **108 WEST 80TH ST/MANH**  
 108 WEST 80TH STREET

NEW YORK CITY, NY

**Spill Number: 9003894**

**Close Date: 07/09/1990**  
 TT-Id: 520A-0091-757

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 272 feet to the NW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Responsible Party  
 Caller Name: FRANK O'DONNELL  
 DEC Investigator: KSTANG

Spiller: BAERENKLAU  
 Notifier Name:  
 Caller Agency: BAERENKLAU  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (718) 647-4200  
 Contact Person Phone:

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 07/09/1990       | 07/09/1990          | HUMAN ERROR      | UNKNOWN                 |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 1.00             | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

FUEL SPILLED FROM VENT, SPEEDY DRY BEING USED, TO PICK UP & DISPOSE.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TANG

**Map Identification Number 252** **101 WEST 81ST ST**  
 101 WEST 81ST ST

MANHATTAN, NY

**Spill Number: 9511954**

**Close Date: 12/21/1995**  
 TT-Id: 520A-0097-831

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 293 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Responsible Party  
 Caller Name: JOHN BARRICELLA  
 DEC Investigator: SMMARTIN

Spiller: MR CAREY – CASTLE OIL CORP  
 Notifier Name: DRIVER  
 Caller Agency: T S TRUCKING COMP  
 Contact for more spill info:

Spiller Phone: (718) 579-3414  
 Notifier Phone:  
 Caller Phone: (718) 499-2900  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 12/21/1995       |                     | EQUIPMENT FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 4.00              | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

EQUIPMENT FAILURE CAUSED SPILL ONTO THE SIDE OF THE BUILDING AND INTO THE SNOW – CALLER IS A TRUCKING COMP FOR CASTLE OIL & HAD VERY LITTLE INFO

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was MARTINKAT

**Map Identification Number 253** **ENDICOTT APARTMENT CORP.** **Spill Number: 1000110** **Close Date: 04/06/2010**  
 101 WEST 81ST STREET MANHATTAN, NY TT-Id: 520A-0248-490

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 293 feet to the N

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL VEHICLE  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: jbvought

Spiller: CASTLE OIL  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: MILLIE LOPEZ

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 04/03/2010 |                     | HUMAN ERROR    | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #4 FUEL OIL      | PETROLEUM      | 40.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

APPROX 35-40 GALLONS TO ALLEYWAY PAVEMENT DUE TO FUEL DELIVERY TO WRONG ADDRESS. CLEANUP PENDING.

**DEC Investigator Remarks:**

04/03/10-Vought-Primary off-hours responder. Called and spoke to Millie Lopez (Ph:718-579-3413) and spill on concrete due to miss-delivery. Cleanup being performed by Riteway Tank (Anthony Lara 718-855-7270 cell:917-709-3317). Lopez also indicated that spill was in alleyway, no sewers were affected and spill cleaned using speedy dry. Vought called Riteway (Lara) for update. Vought left message for Lara to return call with confirmation of cleanup. Vought spoke to Lara and no oil in basement and Castle cleaned oil out of vent pipe. Lara will call back with further information. Vought received call and spill was to two 1250 gallon USTs and Riteway pumped fuel out of tanks as #6 fuel was delivered to #2 fuel oil tanks. Spill cleaned by Castle Oil and this confirmed by Lara. Vought required possible powerwash of alleyway and Riteway (Lara) to perform site visit to determine if powerwash is warranted. Lara will perform site visit and return call to Vought. Lara noted that impacted debris remained under the stair metal staircase (oil saturated leaves and dirt).

4/6/10-Vought-Called PBS #2-249092 contact Stuart Bardin (Halstead Mgmt Co 212-396-8266) to confirm presence of debris under staircase. Barin on vacation and Vought left message for his emergency contact Gayle Whitney also at Halstead (212-396-8272) to confirm the presence of oil saturated debris under the staircase. DEC Patel performing site visit. Vought received call from Patel who was onsite and had inspected impacted area under staircase and noted difficulty accessing area as well as lack of olfactory odors and that spill was on concrete. Patel noted that spill could be closed. Spill closed by Vought. Vought called Whitney and left message of same.

**Map Identification Number 254** **APART**  
 101 WEST 81ST STREET

MANHATTAN, NY

**Spill Number: 0602795**

**Close Date: 06/13/2006**  
 TT-Id: 520A-0097-395

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 293 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: rmpiper

Spiller: MARCUS- SUPER - APART  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: MARCUS- SUPER

Spiller Phone: (212) 362-5100  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (212) 362-5100

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 06/13/2006 |                     | EQUIPMENT FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 15.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

DEFECTIVE GAUGE ON TANK: CONTAINED AND CLEAN UP CREW ON SCENE CLEANING UP: SIDEWALK ONLY NO WATER EFFECTED

DEC Investigator Remarks:

DEC Piper spoke w/ Robert Iaria at Metro. Spill was due to faulty gauge on tank. 10-15 gallons spilled to concrete. Crew responded and site is cleaned. Piper spoke w/ Super of bldg., as per him, they have cleaned up as best as possible. A stain is still present. He is satisfied w/ the cleanup. Closed.

**Map Identification Number 255** **BASEMENT SPILL**  
 446 COLUMBUS AV

MANHATTAN, NY

**Spill Number: 0514785**

**Close Date: 04/18/2006**  
 TT-Id: 520A-0097-833

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 293 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                   |                                      |
|-----------------------------------|-----------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller:                          | Spiller Phone:                       |
| Notifier Type: Fire Department    | Notifier Name: CAPT SMITH         | Notifier Phone: (212) 570-4261       |
| Caller Name: CAPT SMITH           | Caller Agency: NYCFD              | Caller Phone: (212) 570-4261         |
| DEC Investigator: HRPATEL         | Contact for more spill info: NYFD | Contact Person Phone: (212) 570-4261 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 03/25/2006 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #2 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SEWER                |

Caller Remarks:

cause was broken gauge on oil burner in basement. spill occurred on the basement floor and into a sump pump. Unknown quantity.  
 Haz-Mat operations number: 212-360-4480

DEC Investigator Remarks:

03/27/06-Hiralkumar Patel. Received spill report during off hours duty on Saturday Mar 25. Spoke with Captain Smith. as per Mr. Smith they have responded to spill and all cleaned up. they have sucked out 120 gal of oil/water mixture from catch basin in boiler room. Visited site. Met with Mr. Chris, tenant and Mr. Joe, a technician who was repairing faulty gauge. as spoke with Mr. Joe, there was a oil leak from pressure gauge on burner. this burner system comes under commercial property management. simultaneously they had water leak from heat pump so oil water mixed in small burner room. this burner room floor has some small cracks and few open spots at wall. some bottles, wood pieces etc. were on floor. when entered into burner room, there was no odor in burner room and the faulty gauge was taken out and pipe was capped with plug. no more leakage observed. there was water on floor close to door leading to walkway towards street. there was one drain in middle of walkway, which is the lowest point of walkway. oil probably went down to this drain. behind the small burner room is the large boiler room having two boilers in it. this boiler room comes under residential management property. and wall between burner room and boiler room has openings between bricks. and as nobody knows what time leakage started, oil went down to large boiler room. this boiler room has one catch basin in corner and one drain in middle of room. spoke with super Mr. Dexter Ghent (ph. 212-362-5108) who is handling residential property. as per Mr. Ghent they have made boiler room floor in last november and drain in boiler room is inactive leading nowhere and filled with cement. floor didn't have any cracks. the catch basin is in corner of boiler room near the entrance door. fire department has removed 120 gal of oil/water mix from this catch basin. as per Mr. Ghent they only run sump pump only they have any water in it. and they never run it in last three months. so no oil went to city sewer system through catch basin pump. fire department has cleaned this boiler room with speedie dry, but there was still strong odor in boiler room as wall toward burner room had little oil on it. this boiler room has one door and one small opening at other end in wall between burner room and boiler room. small fan was running inside boiler room throwing out air from boiler room as door kept open, but this fan was not

sufficient. there were no odor in other part of building or upstairs in commercial/residential area except that large boiler room. commercial facility using #2 oil and residential facility is using #4 heating oil.

based on site observations, i recommended Mr. Ghent to replace soaked speedie dry with fresh one, to remove remaining water from catch basin, put some absorbent pads to remove any oil left in it, to put one big fan outside of boiler room to throw out large amount of air before entering into boiler room for cleaning as they don't have any experience in cleaning oil spill. also asked him to clean burner room as it still had water on floor. Talked with Mr. Jim Reid, who is manager of commercial property, and asked him to clean both burner room and boiler room. also asked Mr. Reid to contact environmental consultant to remaining cleanup and investigation.

Jim Reid 101 W 70 Street Manhattan, NY 10023 Ph. (212) 712-6182 FAX (212) 724-6386

ADDRESS for residential property: Endicott Apartments 101 W 81st Street Manhattan, NY 10024 Ph. (212) 362-5108 FAX (212) 362-0970

because of possible discharge of oil into city sewer through drain in walkway, notified DEP. DEP case # 1307993

03/28/06-Hiralkumar Patel. Spoke with Jim Reid. as per Jim there is no more odor in any part of building. all cleaned up. contaminated material disposed off from site. Spoke with Mr. Ghent on site and there is no more odor in boiler room. there are no cracks in catch basin floor. all cleaned up.

CSL sent out requesting summary of cleanup process, condition of floor and color photographs of floor after cleanup.

04/18/06-Hiralkumar Patel. Received letter and photographs from James Reid. - cause of spill was a faulty pressure gauge on the boiler - fire department vacuumed most of the oil into one 55 gal drum and two 15 gal drums - removed remainder of oil with absorbent material. - condition of the impacted floor area is completely clean of any oil. the composition of the floors are concrete. the floor area in spill has a few small cracks. the floor area in residential boiler room is a new concrete floor, with no cracks. - sump pumps in boiler room were disconnected, removed and cleaned.

invoice from Petroleum Tank Cleaners and contaminated material disposal manifest also attached with letter. photographs looks clear.

Left message for Mr. Ghent. Spoke with Mr. Ghent and he doesn't have any odor complaints. based on available information and photographs, case is closed. NFA letter sent out to Jim Reid. Faxed to Mr. Reid and Mr. Ghent.

**Map Identification Number 256****SIDEWALK**

32 WEST 82ND ST

MANHATTAN, NY

**Spill Number: 0401035****Close Date: 03/17/2005**

TT-Id: 520A-0093-113

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 327 feet to the NE

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: UNKNOWN Spiller: MARINO Spiller Phone: (212) 724-0790  
 Notifier Type: Other Notifier Name: PASCAL,NICK Notifier Phone: (201) 489-5100  
 Caller Name: PASCAL,NICK Caller Agency: HESS Caller Phone: (201) 489-5100  
 DEC Investigator: SMSANGES Contact for more spill info: MARINO Contact Person Phone: (212) 724-0790

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 04/29/2004 |                     | EQUIPMENT FAILURE | YES                     |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #6 FUEL OIL      | PETROLEUM      | 10.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

about 10 gallons of #6 oil spilled due to a faulty gauge on the tank.spill is going to be cleaned up

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SANGESLAND Sangesland spoke to Nick Pascal at Hess. He said it was a 10 gal #6 fuel oil spill on the sidewalk. No spill in the basement.

Eastmond was hired to do cleanup.

**Map Identification Number 257** **SPILL NUMBER 0104721** **Spill Number: 0104721** **Close Date: 08/06/2001**  
 32 WEST 82ND ST MANHATTAN, NY TT-Id: 520A-0091-250

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 327 feet to the NE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: TANK TRUCK Spiller: UNKNOWN Spiller Phone:  
 Notifier Type: Responsible Party Notifier Name: ISRAIL UNGER Notifier Phone:  
 Caller Name: SCOTT WILLIAMS Caller Agency: AMERADA HESS Caller Phone: (201) 489-5100  
 DEC Investigator: MXTIPPLE Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 08/01/2001 |                     | EQUIPMENT FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 15.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

gauge was not operating correctly causing spill. currently contained and cleanup is scheduled.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIPPLE ROADWAY CLEANED

**Map Identification Number 258** **PUBLIC SCHOOL 44**  
 100 WEST 77TH ST

MANHATTAN, NY

**Spill Number: 9600690**

**Close Date: 04/15/1996**  
 TT-Id: 520A-0092-320

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 336 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
 Notifier Type: Other  
 Caller Name: GARLAND MCARDLE  
 DEC Investigator: JMKRIMGO

Spiller: PUBLIC SCHOOL 44  
 Notifier Name: DRIVER – STEVE FLORENO  
 Caller Agency: COSTAL OIL CO.  
 Contact for more spill info:

Spiller Phone: (718) 361-3700  
 Notifier Phone: (718) 746-2458  
 Caller Phone: (718) 746-2458  
 Contact Person Phone: (718) 361-3700

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 04/15/1996 |                     | EQUIPMENT FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 10.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

faulty customer hydrometer gadge caused spill onto dirt spill is contained at this time

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was KRIMGOLD CONTAMINATED SOIL REMOVED AND DISPOSED OF

**Map Identification Number 259** **COLUMBUS AVE & 76TH ST** **Spill Number: 9509190** **Close Date: 10/25/1995**  
 COLUMBUS AVE & 76TH ST MANHATTAN, NY TT-Id: 520A-0092-899

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 337 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: COLUMBUS AVE / W 76TH ST  
 Revised zip code: 10024

|                                   |                               |                              |
|-----------------------------------|-------------------------------|------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: LIRO CONSTRUCTION OR | Spiller Phone:               |
| Notifier Type: Local Agency       | Notifier Name: ANNONYMOUS     | Notifier Phone:              |
| Caller Name: CHARLES LIUZZA       | Caller Agency: DEP            | Caller Phone: (718) 337-4357 |
| DEC Investigator: SIGONA          | Contact for more spill info:  | Contact Person Phone:        |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/25/1995 |                     | DELIBERATE     | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN MATERIAL | OTHER          | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

CALLER STATES HE RECEIVED CALL FROM PERSON REPORTING SUBJECTS WERE BURYING WHAT APPEARED TO BE A JUNK OIL TANK

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 260** **MARBOROS REALTY**  
 22 WEST 77TH ST

NEW YORK, NY

**Spill Number: 1501064**

**Close Date: 07/10/2015**  
 TT-Id: 520A-0308-993

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 353 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL VEHICLE  
 Notifier Type: Other  
 Caller Name:  
 DEC Investigator: HRPATEL

Spiller: JOSEPH ZUBIN – UNITED METRO ENERGY  
 Notifier Name:  
 Caller Agency:  
 Contact for more spill info: JOSEPH ZUBIN

Spiller Phone:  
 Notifier Phone:  
 Caller Phone:  
 Contact Person Phone: (347) 539-1477

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 04/30/2015       |                     | EQUIPMENT FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #4 FUEL OIL      | PETROLEUM           | 5.00              | GALLONS                 | 0.00               | GALLONS             |                      |

Caller Remarks:

Gauge not working correctly on bld equipment, millro en rte for c/u

DEC Investigator Remarks:

5/1/15: Mahat DEC Mahat contacted Mr. Joseph Zubin @ 347.539.1477 United Metro Energy inquiring about the spill and its nature. Spill occurred during the delivery due to faulty electronic meter and petro-meter. Approximately 10 gallon #4 fuel oil was strictly spilled from the vent line impacting the soil/ grass under the vent port. There spill inside the building. Milro Environmental was on site to remove the contaminated soil from the site and collect an end point sample for the confirmation. A spill closure report including manifest will be submitted to DEC Attention.

PBS: 2-420999

An email was sent out to the management shortly after the phone conversation to repair the spill prevention equipment.

Mr. Howard D. Ohayon,

As per our phone conversation, please provide the confirmation that petro-meter has been fixed and properly calibrated prior to next delivery. Once, I reviewed the confirmation I will promptly remove the hold status on my database.

Let me know if you have any question and concerns about this email.

DEC is waiting for spill closure report and spill prevention equipment repair report.

05/07/15–Hiralkumar Patel. 8:37 AM:– received email from Dot including lab result of four soil samples. soil samples were collected from bottom, east sidewall, west sidewall and north sidewall. no contamination noted in samples. Dot inquired if they can backfill the excavation. email is missing information about excavation size and south sidewall sample result. 2:13 PM:– sent email to Dot and asked to submit site map with excavation dimensions and sample locations. 2:48 PM:– received email from Dot including site map. the south sidewall of the excavation was the building's foundation wall. less than 10 ppm recorded on PID in endpoint samples. excavation was 3 ft by 5 ft by 2 ft in size. 3:15 PM:– sent email to Dot. informed her that based on submitted information, no further remediation is needed outside the building and excavation can be backfilled. inquired her about spill cleanup inside the building. 3:41 PM:– received email from Dot stating that there was no impact to the interior of the building and spill was all outside.

6/16/15: Mahat DEC Mahat received an confirmation from the Management that petrometer has been finxed via email. Petrometer is working fine

Please close file and allow oil deliveries

H. David Ohayon Marbrose Realty 43 west 75 New York NY 10023

07/10/15–Hiralkumar Patel. received email from Dot (at 1:07 PM on 06/05/15) including closure report.

case closed.

**Map Identification Number 261**



**SPILL NUMBER 0211129**

22 WEST 77TH ST

MANHATTAN, NY

**Spill Number: 0211129**

**Close Date: 02/06/2003**

TT-Id: 520A-0091-401

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 353 feet to the S

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL VEHICLE

Notifier Type: Responsible Party

Caller Name: JOHN BARRICELLA

DEC Investigator: RWAUSTIN

Spiller: CALLER – T & S TRUCKING CO

Notifier Name:

Caller Agency: T & S TRUCKING CO.

Contact for more spill info: CALLER

Spiller Phone:

Notifier Phone:

Caller Phone: (718) 499-2900

Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 02/06/2003 |                     | EQUIPMENT FAILURE | YES                     |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #4 FUEL OIL      | PETROLEUM      | 10.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

spill went to sidewalk and street. fill box failure. cleanup crew on scene.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was AUSTIN 2/6/03 – AUSTIN, DDO – SPOKE WITH SPILLER (T&S TRUCKING AND SITE MGT. AGENT (MARBROSE REALTY – DAVID – 212-769-3706) – SPILL OCCURED WHEN NOZZLE WAS IMPROPERLY CONNECTED TO FILL BOX, AND DISCONNECTED HALFWAY THROUGH 2000 GAL. DELIVERY – DELIVERY WAS STOPPED, AND IMPACT WAS TO SIDEWALK AND GUTTER – RP CLEANED UP WITH DRISORB – RP WILL DO PRESSURE WASH TO COMPLETE CLEANUP TO SATISFACTION OF MGT. AGENT. CLOSE

Map Identification Number 262

APARTMENT  
15 WEST 81ST ST

MANHATTAN, NY

Spill Number: 0909623

Close Date: 12/01/2009  
TT-Id: 520A-0233-973

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 361 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
Notifier Type: Other  
Caller Name:  
DEC Investigator: smsanges

Spiller: LEWIS MARTIN – LEWIS MARTIN  
Notifier Name:  
Caller Agency:  
Contact for more spill info: MILLIE LOPEZ

Spiller Phone:  
Notifier Phone:  
Caller Phone:  
Contact Person Phone: (718) 579-3413

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 11/30/2009       |                     | EQUIPMENT FAILURE | NO                      |                    |                     |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #6 FUEL OIL      | PETROLEUM           | 30.00             | GALLONS                 | 0.00               | GALLONS             |                      |

Caller Remarks:

Caller reporting 30 gallons of #6 fuel oil spilled to ground. clean up in progress.

DEC Investigator Remarks:

11/30/2009 4PM – Piper spoke to Millie Lopez at Castle Oil. She was sending a crew to the site to cleanup. Oil came out the vent line onto Cement area and a grated sump like area. Spill is contained and is being cleaned up. Need to call in the morning to confirm cleanup. 12/01/2009 – Sangesland spoke to Millie at Castle. Cleanup was completed, most of the oil was contained in a small grated box area. Everything was contained and cleanup went well.

**Map Identification Number 263** **60 WEST 76TH ST** **Spill Number: 9702507** **Close Date: 05/29/1997**  
 **60 WEST 76TH ST** **MANHATTAN, NY** **TT-Id: 520A-0092-418**

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 402 feet to the SSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: MIKE HELFONT – MYSTIC TRANSPORTATION Spiller Phone: (718) 932-9075  
 Notifier Type: Responsible Party Notifier Name: GREG BALDARI Notifier Phone:  
 Caller Name: MIKE HELFONT Caller Agency: MYSTIC TRANSPORTATION Caller Phone: (718) 932-9075  
 DEC Investigator: WESTERLIND Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 05/29/1997 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 10.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

gauge was off and driver overfilled tank – spill crew on way to clean up

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 264**  **129 WEST 77TH STREET** **Spill Number: 9308723** **Close Date: 10/19/1993**  
 129 WEST 77TH STREET MANHATTAN, NY TT-Id: 520A-0092-002

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 409 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                              |                              |
|-----------------------------------|------------------------------|------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller:                     | Spiller Phone:               |
| Notifier Type: Other              | Notifier Name:               | Notifier Phone:              |
| Caller Name: FRANK O'DONNELL      | Caller Agency: BAERENKLAU    | Caller Phone: (718) 647-4200 |
| DEC Investigator: CAMMISA         | Contact for more spill info: | Contact Person Phone:        |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 10/19/1993 | 10/19/1993          | EQUIPMENT FAILURE | UNKNOWN                 | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 0                | UNKNOWN | 0                  | UNKNOWN | SOIL                 |

Caller Remarks:

VENT PLUGGED (PIPE) – CLEANED UP W/ SPEEDY DRY.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

10/10/95: This is additional information about material spilled from the translation of the old spill file: 1 PINT.

**Map Identification Number 265**

**APT BUILDING**  
127 WEST 79 ST

MANHATTAN, NY

**Spill Number: 1007020**

**Close Date: 12/04/2012**  
TT-Id: 520A-0255-645

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
Approximate distance from property: 414 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: 127 W 79TH ST  
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
Notifier Type: Other  
Caller Name:  
DEC Investigator: SFRAHMAN

Spiller: MICHAELLE MCCARTHY – CH GREENTHAL  
Notifier Name:  
Caller Agency:  
Contact for more spill info: CH GREENTHAL MCCARTHY

Spiller Phone:  
Notifier Phone:  
Caller Phone:  
Contact Person Phone: (212) 340-9300

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 09/29/2010       |                     | EQUIPMENT FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #6 FUEL OIL      | PETROLEUM           | 0                 | GALLONS                 | 0                  | GALLONS             |                      |

Caller Remarks:

7000gal agt/unsure if there is contamination under tank

**DEC Investigator Remarks:**

Sangesland spoke to Jerry at Controlled Combustion. He said the tank is wrapped in cement block in the basement. Oil started coming through the weep holes under the tank enclosure. Tank was drained and temp tank set up. They have the building engineer making drawings for a new tank.

Sangesland asked Jerry to break a 1ft x 1 ft hole near the weep hole to look under the tank and see how much of a spill problem is there. Jerry will do this in the next 1-2 days and set up a time for DEC to visit the site.

12/04/12 AST has been removed from the property. End point sample shows residual contamination within acceptable range. The cement floor under the tank was in good condition. Case closed.(sr)

**Map Identification Number 266** **APARTMENT COMPLEX**  
 11 WEST 81ST ST

NEW YORK, NY

**Spill Number: 9700916**

**Close Date: 04/21/1997**  
 TT-Id: 520A-0092-408

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 423 feet to the ENE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
 Notifier Type: Other  
 Caller Name: JIM CAREY  
 DEC Investigator: SMMARTIN

Spiller: JOE - APARTMENT COMPLEX  
 Notifier Name: CARLOS FIGUEROA  
 Caller Agency: CASTLE OIL CORPORATION  
 Contact for more spill info: JOE

Spiller Phone: (212) 877-8944  
 Notifier Phone: (718) 579-3414  
 Caller Phone: (718) 579-3414  
 Contact Person Phone: (212) 877-8944

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 04/21/1997 |                     | TANK OVERFILL  | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 10.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

OVERFILL OF A STORAGE TANK CAUSED SPILL ONTO A CONCRETE BACK YARD CLEAN UP CREW IS ENROUTE AT THIS TIME

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was MARTINKAT

**Map Identification Number 267** **ALLEYWAY - DRUM RUN**  
 11 W.81ST STREET

MANHATTAN, NY

**Spill Number: 1203278**

**Close Date: 08/02/2012**  
 TT-Id: 520A-0275-647

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 423 feet to the ENE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: unk Spiller Phone:  
 Notifier Type: Other Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: Caller Phone:  
 DEC Investigator: RMPIPER Contact for more spill info: FF MULLEN Contact Person Phone: 212-570-4244

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 07/03/2012 |                     | ABANDONED DRUM | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| GASOLINE         | PETROLEUM      | 0                | UNKNOWN | 0                  | UNKNOWN |                      |

Caller Remarks:

2 5 GALLON CANS OF GASOLINE, LEAKING SLOWLY. CONFINED TO DRUM BY FD.

DEC Investigator Remarks:

8/1/12- referred to NYC DEP Hazmat as it was gasoline. Not found. Closed.

**Map Identification Number 268** **35 W. 82ND ST**  
 35 W. 82ND STREET

MANHATTAN, NY

**Spill Number: 9415054**

**Close Date: 06/20/1995**  
 TT-Id: 520A-0092-153

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 436 feet to the NE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER Spiller: SAME Spiller Phone:  
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:  
 Caller Name: MARC POSEN SUMMIT Caller Agency: SUMMIT TRANSPORT Caller Phone: (201) 836-4220  
 DEC Investigator: SMMARTIN Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 02/16/1995       | 06/20/1995          | EQUIPMENT FAILURE | UNKNOWN                 |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #6 FUEL OIL      | PETROLEUM           | 10.00             | GALLONS                 | 10.00              | GALLONS             | SOIL                 |

Caller Remarks:

FAULTY GAUGE – CLEANED UP. CALLER STATED SUPERINTENDANT OF COMPLEX WAS ON SCENE. BUT DID NOT HAVE NAME OR PHONE NUMBER FOR HIM.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was MARTINKAT

Map Identification Number 269

BASEMENT

131 WEST 78TH ST

MANHATTAN, NY

Spill Number: 1214810

Close Date: 01/31/2013

TT-Id: 520A-0280-960

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 444 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Responsible Party

Caller Name:

DEC Investigator: HRPATEL

Spiller: ANDREW – FRED M SCHILDWALHTER AND SONS

Notifier Name:

Caller Agency:

Contact for more spill info: ANDREW

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: (718) 828-2500

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/21/2013       |                     | EQUIPMENT FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #2 FUEL OIL      | PETROLEUM           | 5.00              | GALLONS                 | 0.00               | GALLONS             |                      |

Caller Remarks:

5 gal spilled to concrete. Clean up is pending crew arrival.

---

DEC Investigator Remarks:

01/23/13–Hiralkumar Patel. alternate addresses: none no PBS or other spills found.

11:46 AM:– spoke with Andrew. he mentioned that FDNY reported spill to them as found oil in tank room. during oil delivery, oil came out of gauge line and spill around tank. oil company crew has cleaned the spill and replaced gauge line. they will go back today to check. asked Andrew to call after today's inspection.

11:54 AM:– left message for previous owner, who sold property recently.

Realty Corp. PH. (212) 787–7335

\*\*previous owner\*\*

01/29/13–Hiralkumar Patel. received message from Jean Dennison (at 11:35 AM on 01/28/13), property owner.

Jean Dennison

\*\*property owner\*\* Ph. (914) 772–5649

1:27 PM:– left message for Jene.

01/31/13–Hiralkumar Patel. 1:40 received call from Ms. Dennison. she mentioned that some oil came out of gauge on tank top during delivery. oil company has cleaned the spill. she mentioned that the site has two 275 gal ASTs on legs. she confirmed no leak from tank bottom and no more odors in building.

case closed.

**Map Identification Number 270**



**ROXY HARDWARE**

469 COLUMBUS AVE

MANHATTAN, NY

**Spill Number: 0010667**

**Close Date: 01/12/2004**

TT-Id: 520A–0101–371

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 477 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

|                                        |                                        |                                      |
|----------------------------------------|----------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: PETRO OIL – PETRO OIL         | Spiller Phone: (718) 628–3300        |
| Notifier Type: Responsible Party       | Notifier Name: ED RUSSELL              | Notifier Phone: (718) 628–3300       |
| Caller Name: JOANNE LOENING            | Caller Agency: PETRO OIL               | Caller Phone: (718) 628–3300         |
| DEC Investigator: JMKRIMGO             | Contact for more spill info: PETRO OIL | Contact Person Phone: (718) 628–3300 |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 12/23/2000 |                     | HUMAN ERROR    | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #2 FUEL OIL      | PETROLEUM      | 275.00           | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

OIL DELIVERY AT ABOVE LOCATION. DRIVER PUT MATERIAL INTO ABANDONED TANK BY ERROR. MATERIAL SPILLED IN BASEMENT. CREW ON SITE AND CONTAINMENT/CLEANUP IN PROGRESS. TOTAL AMOUNT OF DELIVERY WAS 275 GALLONS.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was KRIMGOLD Some oil went thru the cracks in the concrete floor. Cont. soil will be removed by Milro. Also will take post-excavation samples and report back to DEC.

1/11/01. According to the soil analytical results presented by Milro, no residual contamination above TAGM numbers left in soil. NFA.

**Map Identification Number 271**     **APARTMENT BUILDING**  
 135 WEST 79TH ST

MANHATTAN, NY

**Spill Number: 1004259**

**Close Date: 01/24/2011**  
 TT-Id: 520A-0253-034

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 486 feet to the WNW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: PASSENGER VEHICLE Spiller: CRAIG HEARD – CO-OP BUILDING Spiller Phone:  
 Notifier Type: Other Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: Caller Phone:  
 DEC Investigator: RMPIPER Contact for more spill info: MARK SALANICK Contact Person Phone: (917) 559-5519

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 07/16/2010 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #6 FUEL OIL      | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS |                      |

Caller Remarks:

Caller reporting a spill of #6 Fuel oil to floor. Clean up is pending.

DEC Investigator Remarks:

As per Mark, two problems with this tank.

1) Leaking fill line which runs along an old coal chute to the basement. 2) Tank itself appears to be leaking, but the owners don't want to test it. They need to clean the tank room to be able to monitor if the tank is actually leaking.

DEC recieved clore report documenting cleanup and tank removal. See edocs if warranted. Spill closed.

**Map Identification Number 272** **473 COLUMBUS AVE/81 & 82**  
 473 COLUMBUS AVE/81 & 82

NEW YORK, NY

**Spill Number: 9607793**

**Close Date: 09/24/1996**  
 TT-Id: 520A-0093-195

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 528 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: 473 COLUMBUS AVE  
 Revised zip code: 10024

Source of Spill: COMMERCIAL VEHICLE Spiller: CALLER – CON ED Spiller Phone:  
 Notifier Type: Responsible Party Notifier Name: NR BRENNEN Notifier Phone:  
 Caller Name: LISA PRIMEGGIA Caller Agency: CON ED Caller Phone: (212) 580–6763  
 DEC Investigator: JHOCONNE Contact for more spill info: CALLER Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 09/20/1996 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| ANTIFREEZE       | OTHER          | 1.00             | GALLONS | 1.00               | GALLONS | SOIL                 |

Caller Remarks:

BEOKEN HEATER HOSE

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL

**Map Identification Number 273** **WEST 79TH STREET AND CENTRAL PARK** **MANHATTAN, NY** **Spill Number: 0105883** **Close Date: 07/29/2002**  
 TT-Id: 520A-0288-326

MAP LOCATION INFORMATION  
 Site location mapped by: MANUAL MAPPING (4)  
 Approximate distance from property: 529 feet to the ESE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: 10024

Source of Spill: COMMERCIAL VEHICLE Spiller: SERGIO WONG – NYC TRANSIT AUTHORITY Spiller Phone:  
 Notifier Type: Responsible Party Notifier Name: SAME Notifier Phone:  
 Caller Name: MR SERGIO WONG Caller Agency: NYC TRANSIT AUTHORITY Caller Phone: (718) 243–4891  
 DEC Investigator: MCTIBBE Contact for more spill info: SERGIO WONG Contact Person Phone: (718) 243–4891

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 08/31/2001       |                     | EQUIPMENT FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| MOTOR OIL        | PETROLEUM           | 6.00              | GALLONS                 | 6.00               | GALLONS             | SOIL                 |

Caller Remarks:

BUS NUMBER 1021 MOTOR OIL LINE LEAKED CAUSING THE SPILL

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIBBE CONTAINED AND CLEANED BY NYCT.

Map Identification Number 274

8223

211 CENTRAL PARK WEST

MANHATTAN, NY

Spill Number: 9906089

Close Date: 11/02/2004

TT-Id: 520A-0097-034

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)

Approximate distance from property: 542 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: 10024

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Responsible Party

Caller Name: RICHARD ROACH

DEC Investigator: JHOCONNE

Spiller: CON EDISON

Notifier Name: DENNIS ROMANO

Caller Agency: CON EDISON

Contact for more spill info:

Spiller Phone: (212) 580-6763

Notifier Phone: (212) 338-3352

Caller Phone: (212) 580-6763

Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 08/21/1999       |                     | EQUIPMENT FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| TRANSFORMER OIL  | PETROLEUM           | 2.00              | GALLONS                 | 2.00               | GALLONS             | SOIL                 |

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**Caller Remarks:**

VAULT 8223. LEAK FROM TRANSFORMER. CONTAINED WITHIN VAULT. HISTORICAL DATA INDICATES 81 PPM OF PCB'S. SAMPLES TAKEN. CLEAN UP PENDING TEST RESULTS. CON EDISON REFERENCE NUMBER 127351.

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**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL

E2MIS 127351

08/21/99 10:08 L.ROMAN #27270 OP.SUP.I&A REPORTS: R.SCALIA #27138 I&A ON ROUTINE WORK IN VAULT 8223 FOUND APPROX. 2 GALS OF OIL FROM BOTTOM LEAK OF TRANSFORMER ON APPROX. 30 GALS OF WATER. NO VISUAL MOVEMENT, NO WATERWAY, NO SMOKE, NO FIRE, NO SUMP, NO CRACKS, NO SEWER, NO SEWER CONECTION, NO SUMPUMP. TOOK SAMPLE AND HUNG SIGN # 17759. \* VAULT HAS WEEP HOLES THAT WERE FOUND CLOGGED TO AJACENT VAULT, AJACENT VAULT HAS A SUMP AND PUMP WHICH WAS PLUGGED IN. HAVE NO SIGN OF OIL IN THIS VAULT OR SUMP, UNPLUGGED PUMP AND BLOCKED WEEP HOLES. HAVE PCB 81PPM FROM HISTORY IN V-8223

RESULTS OF LAB ANALYSIS 99-08784 RECEIVED ON 8/21/99 @1746 HRS. AROCLOR 1254 PCB 114 PPM.

8/22/99 I&A OS Roman #27270 reports transformer and vault drained of di-electric fluid by Astoria >50PPM tanker. In accordance with Astoria records, tanker drained 396 gallons. In accordance with CINDE database, maximum capacity of transformer is 385 gallons. Also, secondary disconnect was started. After drain, two 50lb bags of oil absorbant were placed on vault floor. Final cleanup is pending transformer removal.

6/23/00 20:00 OGS R. Oniell (56615) reports cleanup completed by G. Anelli (14059) I&A. 200 gal liuid removed via over 50 PPM Corporate Tanker. 4 drum solid debris removed directly from site via Transportation Barrel lick up from site. Debirs transported to Astoria via Corporate transportation. Cleanup complete.

Transformer replaced 6/23/2000.

**Map Identification Number 275**



**211 CENTRAL PARK W/MANH**

211 CENTRAL PARK WEST

MANHATTAN, NY

**Spill Number: 9010890**

**Close Date: 01/11/1991**

TT-Id: 520A-0097-033

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (2)

Approximate distance from property: 542 feet to the ENE

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE

Revised zip code: 10024

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: BERESFORD APT COMPLEX Spiller Phone: (212) 787-2100  
 Notifier Type: Other Notifier Name: Notifier Phone:  
 Caller Name: NESTOR PARALITITI Caller Agency: HESS Caller Phone: (201) 489-5100  
 DEC Investigator: O'DOWD Contact for more spill info: Contact Person Phone:

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 01/11/1991       | 01/11/1991          | TANK OVERFILL    | UNKNOWN                 |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #6 FUEL OIL      | PETROLEUM           | 3.00             | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

TANK GAUGE MALFUNCTION,OIL CAME OUT OF VENT, SPILL CONTAINED ON WALL & SIDEWALK, SUPER & DRIVER DOING CLEAN UP.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 276** **CENTRAL PARK** **Spill Number: 0812909** **Close Date: 03/02/2009**  
 211 CENTRAL PARK WEST NEW YORK, NY TT-Id: 520A-0226-327

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (2)  
 Approximate distance from property: 542 feet to the ENE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: 10024

Source of Spill: COMMERCIAL VEHICLE Spiller: RAYMOND ROVINO - HESS OIL Spiller Phone:  
 Notifier Type: Other Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: HESS Caller Phone:  
 DEC Investigator: vszhune Contact for more spill info: RAYMOND ROVINO Contact Person Phone:

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 02/27/2009       |                     | EQUIPMENT FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #6 FUEL OIL      | PETROLEUM           | 10.00             | GALLONS                 | 0.00               | GALLONS             |                      |

Caller Remarks:

Equipment failure on delivery truck for heating oil; cleanup crew is en route. No water, soil or drains involved.

DEC Investigator Remarks:

02/27/09–Zhune spoke to Ray Rovino from Hess Oil (201)4371017. he said the hose got disconnected from the fill line due to mechanical failure. Approximately 5–10 gallons of #6 oil went to the side walk and run down about 30–40 ft on the curb. No sewer, no soil impacted. A Hess Oil crew did the cleaned up. Spill Closed.

**Map Identification Number 277**     **34–36 WEST 83RD ST**  
     34–36 WEST 83RD ST

**Spill Number: 9711001**     **Close Date: 02/19/2003**  
 MANHATTAN, NY     TT–Id: 520A–0089–877

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 568 feet to the NE

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                     |                                      |
|-----------------------------------|-------------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: CALLER – 34–36 83RD ST     | Spiller Phone: (718) 932–9075        |
| Notifier Type: Responsible Party  | Notifier Name: CHARLIE BOETTIGER    | Notifier Phone: (718) 932–9075       |
| Caller Name: CHARLIE BOETTIGER    | Caller Agency: MYSTIC OIL           | Caller Phone: (718) 932–9075         |
| DEC Investigator: TOMASELLO       | Contact for more spill info: CALLER | Contact Person Phone: (718) 932–9075 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 12/31/1997 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 25.00            | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

caller stated that a bad fill line in building caused leak, in basement to building.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 278**  **7,9,11 WEST 82ND ST/MANH**  
7,9,11 WEST 82ND STREET

NEW YORK CITY, NY

**Spill Number: 8903548**

**Close Date: 07/10/1989**  
TT-Id: 520A-0093-132

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (2)  
Approximate distance from property: 600 feet to the ENE

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING  
Notifier Type: Federal Government  
Caller Name: MARGARET CHONG  
DEC Investigator: SIGONA

Spiller:  
Notifier Name:  
Caller Agency: USEPA  
Contact for more spill info:

Spiller Phone:  
Notifier Phone:  
Caller Phone: (201) 458-8730  
Contact Person Phone:

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 06/30/1989 | 07/10/1989          | HOUSEKEEPING   | UNKNOWN                 | NO                  |

| Material Spilled  | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|-------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| UNKNOWN PETROLEUM | PETROLEUM      | -1.00            | UNKNOWN | 0.00               | UNKNOWN | SEWER                |

**Caller Remarks:**

CONTRACTOR REMOVED ASBESTOS, PUT IN 40FT TRAILOR (OPEN TOP), CONTRACTOR PARKED TRAILER IN FRONT OF HOUSE, RAIN WASHED ASBESTOS ON STREET & IN SEWER, DAY CARE CENTER NEARBY.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

**The following DEC Investigator Remarks were available prior to 1/1/2002:**

07/10/89: DEC NOTIFIED DEP, NYCDOS ENVIRON ENFORCEMENT & ECO RIVERA, INVESTIGATION & CLEAN UP WILL BE ORDERED IF SPILL IS CONFIRMED.

**Map Identification Number 279** **8 OZ IN MANHOLE # 30582** **Spill Number: 0613236** **Close Date: 04/24/2007**  
 WEST 75 STREET & COLUMBUS AVE MANHATTAN, NY TT-Id: 520A-0089-978

MAP LOCATION INFORMATION  
 Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 600 feet to the SW

ADDRESS CHANGE INFORMATION  
 Revised street: W 75TH ST / COLUMBUS AVE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: ERTS – CON EDISON MH # 30582 Spiller Phone: (212) 580-8383  
 Notifier Type: Local Agency Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: Caller Phone:  
 DEC Investigator: gdbreen Contact for more spill info: ERTS Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 03/09/2007 |                     | EQUIPMENT FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIELECTRIC FLUID | PETROLEUM      | 0                | GALLONS | 0                  | GALLONS | SOIL                 |

Caller Remarks:

SPILL AMOUNT IS 8 OUNCES, CLEANUP PENDING EQUIPMENT BEING TAKEN OUT OF SERVICE: CONED # 204856

DEC Investigator Remarks:

04/24/07 – See e-docs for Con Ed report detailing cleanup and closure. 204856. see eDocs

**Map Identification Number 280** **27 W 74TH STREET** **Spill Number: 8911278** **Close Date: 03/10/2003**  
 27 W 74TH STREET MANHATTAN, NY TT-Id: 520A-0091-740

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 849 feet to the SSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: SAME Spiller Phone:  
 Notifier Type: Other Notifier Name: Notifier Phone:  
 Caller Name: RICH HOUSTON Caller Agency: BARENKLAU OIL CO. Caller Phone: (718) 647-4200  
 DEC Investigator: FINGER Contact for more spill info: Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 02/27/1990 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units  | Quantity Recovered | Units  | Resource(s) Affected |
|------------------|----------------|------------------|--------|--------------------|--------|----------------------|
| #2 FUEL OIL      | PETROLEUM      | 100.00           | POUNDS | 0.00               | POUNDS | SOIL                 |

Caller Remarks:  
 FUEL LEAKED ONTO CONCRETE.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 281** **BASEMENT** **Spill Number: 1402418** **Close Date: 02/02/2015**  
 175 W 76TH ST NEW YORK, NY TT-Id: 520A-0298-360

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 901 feet to the W

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: PROPERTY OWNER Spiller Phone:  
 Notifier Type: Other Notifier Name: Notifier Phone:  
 Caller Name: Caller Agency: FRANK GALDUN Caller Phone:  
 DEC Investigator: HRPATEL Contact for more spill info: Contact Person Phone: (646) 542-3465

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |         | Penalty Recommended |         |                      |
|------------------|---------------------|-------------------|-------------------------|---------|---------------------|---------|----------------------|
| 06/04/2014       |                     | EQUIPMENT FAILURE | NO                      |         | NO                  |         |                      |
| Material Spilled |                     | Material Class    | Quantity Spilled        | Units   | Quantity Recovered  | Units   | Resource(s) Affected |
| #2 FUEL OIL      |                     | PETROLEUM         | 200.00                  | GALLONS | 0.00                | GALLONS |                      |

**Caller Remarks:**

Caller advised aprx 200 gal of oil spilled into basement. Clean up is pending.

**DEC Investigator Remarks:**

6/4/14 TJD Teleconference with Frank Galdun (environmental consultant). Two open spills are currently being managed by Patel at this property (1402418 & 1309030). New report is associated with a technician working on heating system who changed position on a temporary valve causing the current tank temporary tank system to discharge return (unburned) product through old out of service overhead piping to the former AST location in an adjacent room. Product migrated over concrete surfaces and entered a sump pit (4x4x3). Super is reported to have contained and recovered most product with the exception of the sump. At time of phone contact – Frank indicated PAL Environmental was retained to pump sump with an expected ETA on Friday 6/6/14. DeMeo informed Frank this plan was unacceptable and reuired the building owner's to retain a qualified contractor to pump out sump, pressure wash affected concrete surfaces (recover wash water), evaluate vapor impacts and mitigate with ventilation equipment as necessary. Zhune was dispatched as AH Secondary to inspect. As Patel has several open spills on this site – spill will be managed to closure with other open spills. Zhune to enter notes and photos from inspection results.

6/6/14– Zhune responded to this site. Met Frank Galdum from Merril Environmetal as per Frank the plumber was doing repair in a pipe around the boiler and mistakenly turned the valve, oil flow throught the abandoned supply line and discharged into the former tank room. The oil moved from the tank room into the sump pump located in the boiler room and into a small area of soil located close to the sump. There was little oil odor in the basement. I inspected the floor on top of the boiler. There are a doctor's office and one apartment in this floor. There was no odors in the doctor office. I spoke to the tenant of the apartment and he said no odor in his apartment. Frank said he was trying to contact the owner of the buidlding to hire a contractor to pump the sump that nigh tbut because of the jwch hollyday could not get him. He said that tomorrow 6/5/14 in the morning PAL Environmental will clean the spill. I asked Frank to cover the sump with plastic and before to leave the site I checked an the sump was covered with plastic.

6/6/14–Frank called and said PAL has couple of days cleaning up the spill. They pumped out the oil from the sump. They are reomving the soil from the small area close to the sump and they are removing the debris from the tank room.

06/16/14–Hiralkumar Patel. 8:04 AM:– received message from Frank. 9:18 AM:– spoke with Frank. he mentioned that someone opened valve on old return line on boiler. so oil spilled onto former tank room floor (as tank removed) and pooled along wall between former tank and boiler room. from there, oil seeped under boiler room floor. currently, contractor is removing floor around boiler room sump and will continue remediation. he also mentioned that no product noted in monitoring well installed in sewer

trap pit area. asked Frank to sent email with update on all three spills.

06/25/14–Hiralkumar Patel. 11:27 AM:– sent email to Frank inquiring update.

06/30/14–Hiralkumar Patel. 9:58 AM:– received email from Frank. this spill was reported due to floating heating oil in the basement sump pit adjacent to the exterior side of the AST vault wall. initially, the accumulated product was thought to have been caused by an oil leak from the overhead portion of the abandoned feed pipe that formerly led from the AST to the boiler. while this pipe did leak a minor amount of product (which was cleaned up), the actual discharge occurred at the base of the feed line in the boiler room (a portion of this feed line is underground beneath the two boilers). the basement floor was opened in this area and impacted soil and free product was removed. in addition, a vacuum truck was used on three separate occasions to remove water and oil from the basement sump. the leaking pipe has been entirely disconnected from the system. a minor volume of water does accumulate in the sump, but it is currently free of product. as a precaution, sorbent pads are placed on the water to absorb residual product that may accumulate but it is believed that remediation was successful. monitoring of conditions in the sump shall be conducted to verify that product is not re-accumulating. the soil removed from beneath the floor slab was resting directly on bedrock. the sump pit is concrete-lined and is approximately four feet wide, four feet long and four feet deep.

09/26/14–Hiralkumar Patel. 4:03 PM:– sent email to Frank inquiring updates. email copied to Mr. Eisenberg.

11/12/14–Hiralkumar Patel. 1:08 PM:– left message for Frank. 1:18 PM:– received call from Frank. they are still collecting minor product from the sump. he will send email with update. 1:44 PM:– received email from Frank including update. two subsequent visits to the Site with PAL Environmental included additional water removal and removal of an additional portion of the floor slab to access and drum oil-impacted fill and rock under the slab. liquids in the sump have also been pumped out on these occasions. the most recent of these subsequent events was Friday, November 7, 2014. at that time product was observed as a slight sheen on the water in the sump with no observed intrusion of additional oil. one final visit will be conducted to clean the sidewalls of the sump and to remove the oil sheen. a full report on the activities completed at the site will be prepared after the final visit.

02/02/15–Hiralkumar Patel. 3:20 PM:– received email from Frank including cleanup report.

02/05/15–Hiralkumar Patel. case closed based on available information. 2:36 PM:– sent spill closure letter to Ms. Eisenberg. letter emailed to Ms. Eisenberg and Frank.

\*\*also refer spill #: 1309030 and 1311311.\*\*

**Map Identification Number 282**



**54 WEST 74TH ST**

54 WEST 74TH ST

MANHATTAN, NY

**Spill Number: 9511281**

**Close Date: 11/22/1996**

TT-Id: 520A-0095-769

**MAP LOCATION INFORMATION**

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 930 feet to the SSW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE

Revised zip code: NO CHANGE

|                                   |                                        |                                      |
|-----------------------------------|----------------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: SEMOR                         | Spiller Phone: (212) 496-7841        |
| Notifier Type: Other              | Notifier Name: SEMOR                   | Notifier Phone: (212) 496-7841       |
| Caller Name: BOB DECK             | Caller Agency: PETROLEUM TANK CLEANERS | Caller Phone: (718) 624-4842         |
| DEC Investigator: MCTIBBE         | Contact for more spill info: SEMOR     | Contact Person Phone: (212) 496-7841 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 12/07/1995 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #6 FUEL OIL      | PETROLEUM      | 100.00           | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

CLOGGED VENT CAUSED OVERFILL LOOSING MANHOLE AND OIL SPRAYING OUT ENROUTE NOW FOR ASSESSMENT AND CLEAN UP

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIBBE MARK TIBBE WAS DOWN AT SITE ON DEC 6, 1995 AT 12:00 PM/COMING ON MONDAY DEC. 11, 1995 – MORNING PTC. CLEANED BY PTC.

|                                                                                    |                                  |                              |                               |
|------------------------------------------------------------------------------------|----------------------------------|------------------------------|-------------------------------|
| <b>Map Identification Number 283</b>                                               | <b>54 WEST 74TH STREET CONDO</b> | <b>Spill Number: 9511197</b> | <b>Close Date: 11/22/1996</b> |
|  | 54 WEST 74TH STREET              | MANHATTAN, NY                | TT-Id: 520A-0095-768          |

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 930 feet to the SSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                                       |                                      |
|-----------------------------------|-------------------------------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: SHEFKI MARDJEKAJ – 54 WEST 74TH STREET CONDO | Spiller Phone: (212) 496-7841        |
| Notifier Type: Responsible Party  | Notifier Name: SHEFKI MARDJEKAJ                       | Notifier Phone: (212) 496-7841       |
| Caller Name: SHEFKI MARDJEKAJ     | Caller Agency: 54 WEST 74TH STREET CONDO              | Caller Phone: (212) 496-7841         |
| DEC Investigator: MCTIBBE         | Contact for more spill info: SHEFKI MARDJEKAJ         | Contact Person Phone: (212) 496-7841 |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 12/02/1995       |                     | TANK OVERFILL    | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #6 FUEL OIL      | PETROLEUM           | 200.00           | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

Caller Remarks:

OVERFILL CAUSED ENOUGH PRESSURE TO BLOW OFF MAN HOLE ON TANK. INTO CONCRETE BASEMENT. CONTAINED WITHIN BASEMENT. UNKNOWN CONTRACTOR TO BE CALLED TO PUMP OUT PRODUCT AND STEAM CLEAN BASEMENT. MAN HOLE TO BE CHECKED AND REPAIRED AS NECESSARY.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIBBE CLEANED BY RP. TANK REPAIRED.

Map Identification Number 284

RESIDENT

54 WEST 74TH STREET

NEW YORK, NY

Spill Number: 1407071

Close Date: 04/06/2016

TT-Id: 520A-0300-704

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 930 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING

Notifier Type: Other

Caller Name:

DEC Investigator: vszhune

Spiller: GLEN - MILLROSE

Notifier Name:

Caller Agency:

Contact for more spill info: GLEN

Spiller Phone:

Notifier Phone:

Caller Phone:

Contact Person Phone: (646) 489-1123

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 10/06/2014       |                     | EQUIPMENT FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| #4 FUEL OIL      | PETROLEUM           | 100.00            | GALLONS                 | 0.00               | GALLONS             |                      |

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**Caller Remarks:**

caller reporting that a 3,000 gallon oil tank had a spill of approx 100 gallons, spill happened after driver left after filling tank, no resiuces affected

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**DEC Investigator Remarks:**

10/7/14–Zhune responded this spill. Met Glen(Managing Agent). As per Glen the building received an oil delivery today. After the delivery someone complained oil smell. Glen went to the basement of the building and search the smell and found approximately 100 gallons of oil #4 on the floor of the basement where a part of the fill line is located. Glen called the oil company. The oil company recommended him to call Riteway. I observed oil on the floor of a store room and oil seeping to the next room. The spill was contained with speedi–dry. There was no odor inside the building. Rite way was on the site doing the cleanup. They are going to perform a subsurface invetigation since the floor was not solid with cracks. Glen also said that apparently the connection of the fill line broke and caused the spill.

3/18/15–David Chan sent the following email. Since the update that Rob Hill sent, the client requested that we type them a letter regarding the additional remediation/work needed for 54 West 74th, so that they can submit it to their insurance company (please see attached). We have not heard back yet from them.

**Their contact info:**

Marbrose Realty 43 West 75th St ~ suite–C New York, NY

917–751–1478 Contact: Francisco

4/6/16–David Chan from Rite way email two spill closure letters, the site plan, the soil analytical results and waste manifest. The letters stated that Riteway Tank Maintenance Corp. was contracted to remediate subsurface contamination that occurred on October 6, 2014. A total of 23 drums of impacted soil and material were removed from the impacted area. Letter sent 4/5/16 at 4:13pm said a total of 4 endpoint samples were taken on October 28 2014. Letter sent 4/5/17 at 5:16 pm said 4 borings/samples were taken on October 28, 2014.

Samples return November 12, 2104 and all 4 endpoint samples taken contined anlytes from both semi volatile and volatiles organic compounds exceeded NYSDEC CP–51 Soil Cleanup Gidance Policy.

Further remediation of the area is required in order to remove the remaining impacted soil in the excavation. Once all contamination has been remediated an end point sample will be retrieved and sent to a certified lab for analysis.

An additional 63 drums was remediated from the area. Per request of the NYSDEC a water sample was taken of the area due to remediation reaching bedrock as directed, the results returned negative from contamination and within State regulatory limits.

The area is clean and free of contamination.

As per the Riteway letter the area was excavated two times. Soil is all excavated after second excavation. Due to DEC site visit

no further excavation possible due to bedrock on sides and bottom. No sheen on groundwater and spill closed as per discussed with J. Vought.

**Map Identification Number 285**

**VAULT #6342**

**Spill Number: 9606147**

**Close Date: 02/09/2005**

 IFO 453 AMSTERDAM AVE

MANHATTAN, NY

TT-Id: 520A-0098-766

**MAP LOCATION INFORMATION**

Site location mapped by: MANUAL MAPPING (3)  
 Approximate distance from property: 959 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: NO CHANGE  
 Revised zip code: 10024

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Responsible Party  
 Caller Name: LISA PRIMEGGIA  
 DEC Investigator: JHOCONNE

Spiller: TIM SOILCH – CON EDISON  
 Notifier Name: JAY USINO  
 Caller Agency: CON ED  
 Contact for more spill info: LISA PRIMEGGIA

Spiller Phone: (212) 580-6764  
 Notifier Phone: (212) 338-3352  
 Caller Phone: (212) 580-6763  
 Contact Person Phone: (212) 580-6763

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date       | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |
|------------------|---------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|
| 08/13/1996       |                     | EQUIPMENT FAILURE | NO                      |                    | NO                  |                      |
| Material Spilled | Material Class      | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |
| TRANSFORMER OIL  | PETROLEUM           | 200.00            | GALLONS                 | 0.00               | GALLONS             | SOIL                 |

**Caller Remarks:**

WAS PCB OIL – SEWER WAS ALSO POSSIBLY AFFECTED – WILL BE CLENAED UP TODAY

**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was O'CONNELL

8/13/96, Katz notes: Attempted to de-energize transformer that leaked into vault. Crew to remain on-site until completion – anticipated this afternoon or evening. Have tanker truck scheduled to remove oil. Notify DEP. PCB concentration?

2/9/05: Con Ed inspected vault: Site visit was performed and no oil was found – Also, CINDE database indicates site was visited by a crew after the initial incident and no report of oil was made. Close out. (JHO)

**Map Identification Number 286**     **200 WEST 79TH ST/MANH**  
     200 WEST 79TH STREET

NEW YORK CITY, NY

**Spill Number: 9011809**

**Close Date: 05/25/1995**  
 TT-Id: 520A-0097-842

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1064 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL  
 Notifier Type: Other  
 Caller Name: BOB DECK  
 DEC Investigator: WILSON

Spiller: UNKNOWN  
 Notifier Name:  
 Caller Agency: PETRO TANK CLEANERS  
 Contact for more spill info:

Spiller Phone:  
 Notifier Phone:  
 Caller Phone: (718) 624-4842  
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|----------------|-------------------------|--|---------------------|--|
| 02/08/1991 | 05/25/1995          | HUMAN ERROR    | UNKNOWN                 |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL      | PETROLEUM      | 100.00           | GALLONS | 0.00               | GALLONS | SOIL                 |

Caller Remarks:

ELECTRICAL CONTRACTOR DRILLED INTO FUEL LINE, SPILL CONTAINED IN TANK ROOM, PETRO TANK CLEANERS TO CLEAN UP WITH VAC TRUCK & SORBENT.

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 287**     **10 WEST 86TH ST**  
     10 WEST 86TH ST

MANHATTAN, NY

**Spill Number: 9603097**

**Close Date: 07/10/1997**  
 TT-Id: 520A-0092-328

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1376 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                   |                                                   |                                      |
|-----------------------------------|---------------------------------------------------|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: WATER MAIN BREAK                         | Spiller Phone:                       |
| Notifier Type: Other              | Notifier Name: LARRY KNAFO                        | Notifier Phone: (212) 374-5500       |
| Caller Name: HOWARD LEVY          | Caller Agency: NYC DEP                            | Caller Phone: (718) 595-6700         |
| DEC Investigator: MMMULQUE        | Contact for more spill info: NICK MERCKLING - DEP | Contact Person Phone: (917) 769-1157 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Unable or Unwilling RP - DEC Field Response - DEC Corrective Action Required

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards |  | Penalty Recommended |  |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 06/05/1996 |                     | EQUIPMENT FAILURE | NO                      |  | NO                  |  |

| Material Spilled | Material Class | Quantity Spilled |         | Quantity Recovered |         | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
|                  |                | Units            |         | Units              |         |                      |
| #4 FUEL OIL      | PETROLEUM      | 300.00           | GALLONS | 300.00             | GALLONS | SOIL                 |

Caller Remarks:

water main break caused 5 ft of water to go into basement of above address with an oil slick on surface request call or response from dec

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was MULQUEEN WATER MAIN BREAK FLOODED BASEMENT DISPLACING OIL IN TANK AND FURNACE. DEP REQUESTED THAT DEC HIRE A CONTRACTOR TO CLEAN UP SPILL.

**Map Identification Number 288**    **160 WEST 73RD STREET**  
 160 WEST 73RD STREET

**Spill Number: 9307715**    **Close Date: 02/27/2004**  
 MANHATTAN, NY    TT-Id: 520A-0097-812

MAP LOCATION INFORMATION  
 Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1406 feet to the SW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                        |                              |                              |
|----------------------------------------|------------------------------|------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller:                     | Spiller Phone:               |
| Notifier Type: Responsible Party       | Notifier Name:               | Notifier Phone:              |
| Caller Name: NEIL IBROCI               | Caller Agency: SOLIL MAT.    | Caller Phone: (212) 265-2280 |
| DEC Investigator: SMSANGES             | Contact for more spill info: | Contact Person Phone:        |

|                  |                                                                                                                                                                             |                   |                         |                    |                     |                      |  |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------|--------------------|---------------------|----------------------|--|
| Category:        | Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters. |                   |                         |                    |                     |                      |  |
| Class:           | Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency                                                               |                   |                         |                    |                     |                      |  |
| Spill Date       | Date Cleanup Ceased                                                                                                                                                         | Cause of Spill    | Meets Cleanup Standards |                    | Penalty Recommended |                      |  |
| 09/24/1993       |                                                                                                                                                                             | EQUIPMENT FAILURE | NO                      |                    | NO                  |                      |  |
| Material Spilled | Material Class                                                                                                                                                              | Quantity Spilled  | Units                   | Quantity Recovered | Units               | Resource(s) Affected |  |
| #6 FUEL OIL      | PETROLEUM                                                                                                                                                                   | 3000              | GALLONS                 | 0                  | GALLONS             | SOIL                 |  |

Caller Remarks:

SPILL CONTAINED IN TANK CREW ON SCENE FOR CLEAN UP – ABC CONTRACTING – IWCS CONTACTED. SUME FUM FLOODED.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SANGESLAND 10/10/95: This Is Additional Information About Material Spilled From The Translation Of The Old Spill File: ~2" On Floor.3/17/2003 – Closed Due To The Nature / Extent Of The Spill Report.2/23/2004 – Case Transferred To Sangeslandproperty Manager Harvey Kamen (212-265-2280)-(Fax 212-582-0186) Called To Say The Building Is Being Refinanced And Needs A Proper Closure.2/24/2004 – Sangesland Made A Site Visit. Tank Room Appears To Be Secure. Minor Oil Drips– Poor Housekeeping, But Basically Secure. Sangesland Requested Documentation Relating To The Tank Cleanout/Repair Performed In 1993.2/27/2004 Sangesland Received A Statement From Abc Tank That They Cleaned The Subject Oil Spill On Oct 29, 1993 And Later Patched The Existing Tank With Metal Welds And An Epoxy Liner.The Spill Repair/Cleanup Is Now Properly Documented And This Spill Is Formally Closed Out.

**Map Identification Number 289** **WEST 74TH ST/ BRODWAY** **Spill Number: 9509544** **Close Date: 12/10/1996**  
 WEST 74TH ST/ BROADWAY NYC, NY TT-Id: 520A-0090-930

MAP LOCATION INFORMATION  
 Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 1493 feet to the WSW

ADDRESS CHANGE INFORMATION  
 Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

|                                     |                                              |                                      |
|-------------------------------------|----------------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL VEHICLE | Spiller:                                     | Spiller Phone:                       |
| Notifier Type: Fire Department      | Notifier Name: KREGLER,WILLIAM               | Notifier Phone: (917) 769-0483       |
| Caller Name: KREGLER,WILLIAM        | Caller Agency: NYC FIRE DEPT                 | Caller Phone: (917) 769-0483         |
| DEC Investigator: GUTIERREZ         | Contact for more spill info: KREGLER,WILLIAM | Contact Person Phone: (917) 769-0483 |

Category: Possible petroleum release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters, known releases with no potential for damage, or non-petroleum/non-hazardous spills.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill   | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|------------------|-------------------------|---------------------|
| 11/02/1995 |                     | TRAFFIC ACCIDENT | NO                      | NO                  |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

Caller Remarks:

RESPONDING TO ACCIDENT CALL NO FURTHER INFO AT THIS TIME

DEC Investigator Remarks: NO DEC INVESTIGATOR REMARKS GIVEN FOR THIS SPILL.

**Map Identification Number 290** **APARTMENT BUILDING**  
 203 W. 85TH ST.

MANHATTAN, NY

**Spill Number: 0310337**

**Close Date: 12/10/2003**  
 TT-Id: 520A-0091-473

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)  
 Approximate distance from property: 1630 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
 Notifier Type: Responsible Party  
 Caller Name: ROBERT HILL  
 DEC Investigator: CESAWYER

Spiller: ROBERT HILL – CHURMAN RAGBIR  
 Notifier Name: CHURMAN RAGBIR  
 Caller Agency: CASTLE OIL  
 Contact for more spill info: PAUL BRUSCO

Spiller Phone: (718) 579-3414  
 Notifier Phone: (718) 579-3414  
 Caller Phone: (718) 579-3414  
 Contact Person Phone: (212) 595-9590

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 12/05/2003 |                     | EQUIPMENT FAILURE | NO                      | NO                  |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

Caller Remarks:

blew a fill line to make sure the whistle worked before filling the apartment building.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was SAWYER minor spill to sidewalk out of vent line

All cleaned

Map Identification Number 291

CENTRAL PARK LAKE  
CENTRAL PARK LAKE



MANHATTAN, NY

Spill Number: 9106326

Close Date: 09/15/2009

TT-Id: 520A-0095-745

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING – LARGE SITE  
Approximate distance from property: 1781 feet to the SSE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE  
Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER  
Notifier Type: Responsible Party  
Caller Name: TOM BAUDONKA  
DEC Investigator: JBVOUGHT

Spiller: THOMAS BAUDANZA – NYC PARKS DEPARTMENT  
Notifier Name:  
Caller Agency: NYC PARKS DEPT  
Contact for more spill info:

Spiller Phone:  
Notifier Phone:  
Caller Phone: (212) 360-1421  
Contact Person Phone:

Category: Known release which created a fire/explosion hazards (inside or outdoors), drinking water supply contamination, or significant releases to surface waters.  
Class: Unknown RP – DEC Field Response – DEC Corrective Action Required

| Spill Date       | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards |         | Penalty Recommended |         |                                |
|------------------|---------------------|----------------|-------------------------|---------|---------------------|---------|--------------------------------|
| 09/11/1991       |                     | HUMAN ERROR    | NO                      |         | NO                  |         |                                |
| Material Spilled |                     | Material Class | Quantity Spilled        | Units   | Quantity Recovered  | Units   | Resource(s) Affected           |
| #2 FUEL OIL      |                     | PETROLEUM      | 250.00                  | GALLONS | 250.00              | GALLONS | SOIL<br>SURFACE WATER<br>SEWER |

Caller Remarks:

DURING ABOVEGROUND TANK MAINTENANCE, INTERCONNECTING PIPE BROKE. LEAKED TO ASPHALT AREA, STORM DRAIN, & LAKE. SORBENT PADS APPLIED TO LAKE & DRAIN. WILL FIX PIPE. DEP NOTIFIED.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead\_DEC Field was TIPPLE 5/10/04 – AUSTIN – TRANSFERRED FROM SULLIVAN TO TIPPLE – END

8/23/05 – Raphael Ketani. Case transferred to Jeff Vought.

09/14/09–Vought–File review by Vought:

Photographs of Cleanup–unknown date. Shows application of boom and sweep and impacted lake shoreline.

Wall Street Journal Article–10/2/91. Title is Oil Spill in Central Park . Spill was 250 gallons of #2 fuel oil. Spill occurred 9/11 when workers at a park maintenance yard near West 79th Street attempted to remove two large oil storage tanks. A connecting transfer pipe snapped and the oil leaked into a nearby storm sewer that empties directly into the rowboat lake. Oil was covering 80% of the lake. Parks Department authorized state to cleanup the spill. Cleanup efforts included boom and sweep. Five days later boating resumed in eastern segment and cleanup continued on more polluted western end. Nine days later after the spill, the state cleanup team had completed its work and both parts of the lake were opened again for boating. .

Article–Unknown Author and Date. Small summary and photo with same info as Journal article above.

Contract Payment Package (Winston Contracting) 9/12/91 thru 10/8/91. Work included boats, boom, sweeping, drums and disposal.

Letter from DEC Tomasello to Thomas Baudanza (NYC Parks)–2/10/92. Enclosed please find the bill for the oil spill cleanup by Winston Contracting Corp at Central Park Lake..... . NYC Parks has opportunity to pay the contractors directly for the work that was performed.

ISR–9/28/92. Signed ISR.

Letter from DEC Plesnarski to DEC Oliver–10/27/92.

The above spill project is recommended for immediate close out by your office since the investigations on each spill indicate either no spiller, no petroleum spilled or no fund monies spent.

Liquid TPH Analyticals ( Central Park )–4/9/93. Samples collected on 4/1/93. Analyticals show petroleum constituents all below 1ppb.

09/15/09–Vought–08/17/09–Vought–Vought reviewed site with DEC Austin and spill closed as spill cleanup completed to lake evidenced by photographs analyticals and Wall Street Journal Article and repeated site visits to Central Park lake over the years by Vought. Vought called and spoke to NYSOAG Ross and they have no record of spill (supporting fact that NYC Parks paid contractor directly). Spill closed by Vought. Need for final ISR awaiting callback from DEC Farrar.

08/18/09–Vought–Spoke to DEC Farrar and as Att. Gen. Close Date box is filled out in UIS, no Final ISR needed.

**Map Identification Number 292** **FEEDER M51**  
 WEST END AVE / 84 STREET

MANHATTAN, NY

**Spill Number: 0514145**

**Close Date: 10/10/2006**  
 TT-Id: 520A-0098-432

**MAP LOCATION INFORMATION**

Site location mapped by: ADDRESS MATCHING  
 Approximate distance from property: 2039 feet to the NNW

**ADDRESS CHANGE INFORMATION**

Revised street: WEST END AVE / W 84TH ST  
 Revised zip code: 10024

|                                        |                                           |                                      |
|----------------------------------------|-------------------------------------------|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: ERT DESK – CON EDISON FEEDER M51 | Spiller Phone: (212) 580-8383        |
| Notifier Type: Responsible Party       | Notifier Name: JOHN MERAN                 | Notifier Phone: (212) 580-6763       |
| Caller Name: JOHN MERAN                | Caller Agency: CONED                      | Caller Phone: (212) 580-6763         |
| DEC Investigator: JHOCONNE             | Contact for more spill info: ERT DESK'    | Contact Person Phone: (212) 580-8383 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.  
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill    | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 03/10/2006 |                     | EQUIPMENT FAILURE | NO                      | NO                  |

| Material Spilled | Material Class | Quantity Spilled | Units   | Quantity Recovered | Units   | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIELECTRIC FLUID | PETROLEUM      | 300.00           | GALLONS | 0.00               | GALLONS | SOIL                 |

**Caller Remarks:**

FEEDER IS LEAKING AND THEY ARE LOOSING 7 GALLONS PER HOUR AND ARE STILL INVESTIGATING: MAYBE IN WATERWAYS BECAUSE FEEDER RUNS UNDER WATER: DISPATCHED A BOAT AND CREW ARE WORKING ON FINDING AT THIS TIME.

163283.000

**DEC Investigator Remarks:**

3/10/06, 12:00 PM: Spoke with Mike Pillig, Con Ed Transmission Ops. They suspect it is an inventory issue, not an actual leak. However, they have dispatched the PFT vans to check the feeder run. (JHO)

3/14/06 – small leak located at 84th St. & West End Ave., Manhattan. Excavation will be sampled prior to backfilling. (JHO)

10/6/06: e-mail from Mike Pillig:

Below is a diagram of the excavation and sample results for the 1st round of sampling [SEE E-DOCS – JHO]. The results have been written in on the diagram to facilitate your review. As you will see, there were three samples that were above 10,000 ppm. They were wall samples WW-4 (13,200ppm), EW-2(14,000 ppm), and floor sample SF-3 (30,200 ppm). The rough dimensions of the excavation

are 8' W X 30' L X 8' D. There is one sample that was either lost or not analyzed but I did not resample because we had samples below 10,000 ppm on either side.

We since removed additional soil in the areas of the elevated levels. The walls were resampled in the two locations and the results are below. Both are now below 10,000 ppm.

Lastly, the area of the heaviest contamination, that being the floor was excavated to an approximate depth of 10.5 feet. A sample was taken in the center of the floor slightly offset from the exact leak location. The results, also below 10,000 ppm, are below. Also, there had been a distinct odor of old oil in the excavation up until the last effort to excavate the floor. At the time I took the last sample, the odor no longer was noticeable. Couple of photos for you as well. Close out. (JHO)

~~~~~ e2mis no. 163283: see eDocs

10-Mar-2006 @ 10:25 hours Leak Committee declared a Dielectric Alert on Feeder M51 due to a U.S.I. Leak Detection System alarm of 7 gallons per hour & a approximate discrepancy of 300 gallons. No Oil Leak Has Been Confirmed. The feeder M51 runs between the West 49Th Street S/S and the Sprainbrook S/S. The feeder crosses the Harlem River Between the 155Th Street and 225Th Street Bridges. ERT notified at 10:45 hours to have boat dispatched to patrol River crossing. Chem Lab dispatching PFT vans to patrol feeder run. Gas Corrosion & Transmission Operations dispatched to inspect all underground structures along the run of the feeder. Substation Operations inspecting all associated equipment.

Update, Friday, March 10, 1800 hrs Per Charles Carrillo, Senior Specialist, Transmission Operations, 70 manholes have been inspected and no evidence of a leak has been detected. There are ten more manhole openings (e.g., freeze pits) that need to be inspected. The PFT vans have patrolled the entire feeder run without detecting evidence of a leak.

As of 07:00 3/11/06 all manholes have been checked except for 1 service box. There is a car parked over it and there is no access. Subsurface structures were checked in Manhattan also. ERT boat ran in Harlem River and did not find anything.

At 07:00 3/11/06 Leak committee convened and discussed findings. CSD monitoring of tanks and flowmeters does not show leak trend. USi model has problems with data since bypass valves are open at the cooling plants. Also water loops at W49th St were swapped on 3/8/06 and Sprainbrook Purs shut down on 3/10/06. Model may be slow in responding to changes. Since manhole search was completed and PFT vans did not find any signals, it was decided to stop leak search efforts and continue to monitor USi system.

At approx. 12:00 hrs. during the search for the leak, the PFT van detected PFT in the area of 84th St and West End Ave. Subsurface structures were inspected and approx. 10 gallons of oil in a manhole at the intersection of 84th St. and West End Ave was discovered. Barholes were made and Chem Lab has taken samples from the barholes and PFT is being detected. Trans Ops and the Chem lab are continuing to zero in on the exact leak location. We will continue to barhole and sample until a spot to dig has been established.

Update: Leon Paretsky, Tues, March 14--0930 hrs The leak was located @ 84th St & WEA and clamped at 2030 hrs on Monday, March 14th.

Update: 3/15/06 Presently, an excavation approximately 8'X 8' has been dug to make room for the installation of the permanent repair barrel. We are continuing to dig down below the feeders until the visibly stained soil has been removed. Once the excavation has been completed, we will arrange for post-ex sampling.

Map Identification Number 293 **APARTMENT BUILDING**
 505 WEST END AVE

MANHATTAN, NY

Spill Number: 0604433

Close Date: 10/26/2007
 TT-Id: 520A-0101-339

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2178 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
 Notifier Type: Other
 Caller Name:
 DEC Investigator: VSZHUNE

Spiller: MARK SALAMACK – APART
 Notifier Name:
 Caller Agency:
 Contact for more spill info: MARK SALAMACK

Spiller Phone: (917) 559-5519 ext. C
 Notifier Phone:
 Caller Phone:
 Contact Person Phone: (917) 559-5519 ext. C

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 07/20/2006 | | EQUIPMENT FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #6 FUEL OIL | PETROLEUM | 800.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

SLUDGE BUILD UP IN OIL BURNER CAUSED A SPILL, CLEANING UP AT THIS TIME:

DEC Investigator Remarks:

07/20/06-Vought-Site visit by DEC Vought and DEC Zhune with super of building (Carlos 212-787-7895). As per Carlos: 5000-gallon #6 fuel oil AST was cleaned on 7/17/06 by Petroleum Tank Cleaners (PTC). On 7/19/06, super was notified by resident of oil odors and discovered spill of #6 fuel oil to secondary containment. As per Carlos, tank was operational after it was cleaned by PTC. A fuel order delivery was also received (Stuyvesant Fuel) on 7/17/06 after the tank was cleaned by PTC. No spill occurred during delivery and at time of DEC site visit no spill was observed out of vent pipe. Tank and secondary containment will be removed and replaced as per Carlos. No further odor complaints were received. Vought called DEP and issued report (#1407818) for impact to sump. DEC requires: 1) Tank tightness test of new or repaired system 2) written statement regarding condition of concrete and cleanup procedures. As per Carlos, DEC letter should be sent to:

505 WEA Owners Corp. Gerard J. Picasso 1133 Broadway New York, NY Ph: 212-807-6969 attn: Lisa or Gerard.

07/31/06-Zhune sent TTF letter to Mr. Picasso.

08/28/06 Owner sent invoices of clean up and rental of temporary tank.

8/29/06-Zhune called Carlos (Super) Ph 917-838-9952. He said they are still in the process of removing old tank.

09/27/07 Petroleum tank submitted the following information: ON 20 July 2006 Petroleum Tank was notified of an oil spill at 505 east End Avenue in Manhattan. They found that the existing above ground 5,000 gallon #6 fuel storage tank had begun to leak. The room was littered with debris. The tank was immediately emptied and the room cleaned. The contaminated debris was placed into drums along with absorbent that was used to take up the oil. The tank was removed and the floor was washed with a pressure washer. The floor was a solid cement floor free of any cracks or voids. For this reason no soil samples were taken. A New tank has been installed by Eastmond & Sons.

10/13/2007 Eastmont sent the following Report: At our time of our (Eastmond & Sons)involvement in the new tank installation at the above referenced location the fuel oil tank room has been already cleaned. There were no sign of an oil spill that would require collecting soil samples. Neither cracks nor holes would have compromised the ground beneath the concrete were present Due to an influx of water in the lower exterior foundation wall, it it was my desicion to install a new concrete pad with a gutter built into the one side of the concrete to allow the incoming water to be channeled directly to an existing sump outside the tank area. In order to maintain a containment area for the new tank, additional concrete block were installed on top of the new concrete pad as a dike wall within the tank area to eliminte the possibility of oil ever entering the channel. Case Closed

Map Identification Number 294 **STREET** **Spill Number: 0307135** **Close Date: 11/07/2003**
 WEST 69TH ST/COLUMBUS AV MANHATTAN, NY TT-Id: 520A-0090-817

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 2216 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | | |
|-----------------------------------|--|--------------------------------------|
| Source of Spill: PRIVATE DWELLING | Spiller: UNKNOWN | Spiller Phone: |
| Notifier Type: Fire Department | Notifier Name: FDNY DISPATCH | Notifier Phone: |
| Caller Name: FIREFIGHTER DICKSON | Caller Agency: FDNY HAZMAT 1 | Caller Phone: (347) 539-0559 |
| DEC Investigator: CESAWYER | Contact for more spill info: FIREFIGHTER DICKSON | Contact Person Phone: (347) 539-0559 |

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|----------------|-------------------------|---------------------|
| 10/07/2003 | | TANK OVERFILL | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 100.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:fd doing clean up. spill from #9 to #51 west 69th st.
-----**DEC Investigator Remarks:**

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SAWYER 10/7/03 TIPPLE UPDATED// SAWYER RESPONDED TO SCENE.////////

10/7/03 0645 Hrs – Sawyer – I responded to the site to find a packaged boiler connected to a 1500 gallon tank. The spill was contained and outlined a pattern outside the vent pipe of the boiler spilling, down onto the boiler, onto the tank and down the street to 55 West 69Th Street. There were two 55 gallon drums and one 35 gallon drum sitting on the side walk with over filled #2 fuel. When I arrived another project manager from Maximum Mechanical Corp. was there. He said this was not his project, but since he was in the area his company wanted him to stop by.

He informed me that the real PM a George Leoutsakos would be arriving momentarily. The super of the building Ruben called the PM a couple of times before he arrived at 9:30 am. George said he had contracted USA Tank Cleaners to clean up the contained spill and clean out or take the drums. In addition to the Fire Department who wrote the super a citation, the NYPD and ConED emergency health and safety were also there at various times.

10/16/03 1400 Hrs – Sawyer – Ruben the super called and informed me that USA Tank Cleaners returned and cleaned the gutters to a higher level than normal. Closed.

Map Identification Number 295**FEEDER M52**

WEST END AVE / 86TH ST

MANHATTAN, NY

Spill Number: 9812964**Close Date: 08/07/2006**

TT-Id: 520A-0102-211

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 2324 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: W 86TH ST / WEST END AVE

Revised zip code: 10024

Source of Spill: COMMERCIAL/INDUSTRIAL

Notifier Type: Responsible Party

Caller Name: FRANK MASSERIA

DEC Investigator: JHOCONNE

Spiller: CON EDISON

Notifier Name: MR HAGGERTY

Caller Agency: CON EDISON

Contact for more spill info: FRANK MASSERIA

Spiller Phone: (212) 580-6763

Notifier Phone:

Caller Phone: (212) 580-6763

Contact Person Phone: (212) 580-6763

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.**Class:** Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | | |
|------------------|---------------------|-------------------|-------------------------|---------|---------------------|---------|----------------------|
| 01/21/1999 | | EQUIPMENT FAILURE | NO | | NO | | |
| Material Spilled | | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| DIELECTRIC FLUID | | PETROLEUM | 282.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

LEAK IN FEEDER LINE THAT RUNS BETWEEN THE TWO SUBSTATIONS – LEAK IS APPROX 1.5 GALS PER HOUR – APPROX 200 GALS MISSING FROM RESEVOIR CON ED 122598 – LINE IS 80 MILES LONG AND LEAK COULD BE SOMEWHERE BETWVEN THE 2 – UNK PCB COUNT

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was O'CONNELL

1/21/99: ERT Piczatowski – Based on flow meter trending, not on reservoir level drop. Pulling manholes and 2 PFT truck are out. Capacity of feeder is 308,153 gallons. (JHO)

1/23/99: Leak located at West End Avenue at West 86th St., Manhattan.

1/25/99: spoke to John Heggerty, S&TO Central Ops. Final leak volume calculation is 282 gallons. (CAE)

1/25/99: CIG Romero reports temp clamp as of 0200 on 1/23/99. West End Ave. 10 feet north of W. 86th Street. (CAE)

Field notes: 1/25/99 On location at 12:53. Met with Gerry Materazzo, Joe Floryshak (Con Ed) and George Vasilev (MEG). Repairs made. Materazzo reports that bedrock was only a couple of inches below feeder. Had to jack hammer out to put barrel on. Vasilev put in well this morning to bedrock – recovered 90 gallons mostly oil. During excavation removed 5 yards contaminated soil. Oil is entering sewer on corner of W. End Ave. & W. 86th St. MEG maintaining boom. MEG to return on Friday to check well and sewer (change sorbent).

Chem Lab arrived and collected 2 soil samples from west wall of excavation a couple of feet north of the spot on the feeder where the leak was (leak at 4 o'clock on feeder facing south). Samples looked dark and wet – collected from behind the shoring.

After samples collected I told Materazzo he could backfill. (CAE)

10/18/02: submitted for closure by Con Ed (see e2mis report which follows). Sent back to Con Ed requesting soil sample results and additional information on well. This spill added to Appendix B site no. 41, and transferred from Engelhardt to O'Connell. (JHO)

3/10/03: letter from Con Edison EH&S Remediation group requesting to combine this spill with Appendix B site 29 (sp. 9012291).

(JHO)

3/25/04: Draft site investigation work plan submitted by Con Edison. (JHO)

10/7/04: Comment letter on SIWP sent out. (JHO)

5/17/05: revised SIWP (incorporating DEC comments) approved. (SKA)

3/30/06: Con Ed submits site investigation report. Report assigned to Shaun Bollers for review. (JHO)

8/7/06: Report indicates that no residual soil or groundwater contamination was detected during the site investigation activities. Based on these results, spill is closed. (JHO)

----- e2mis no. 122-598:

21-JAN-1999 @ 13:40 HRS. FLOW METER TRENDING ON FDR M52 AT WEST 49TH ST S/S PUMPHOUSES INDICATES A DISCREPANCY OF APPROXIMATELY 200 GALLONS. LEAK RATE OF 1.5 GALLONS PER HOUR. LEAK COMMITTEE CONVENED. UT AND GAS CORROSION INSPECTING MANHOLES ON RUN OF FEEDER. PFT VAN DISPATCHED TO PATROL RUN OF FEEDER. SUBSTATION OPERATIONS INSPECTING PUMPHOUSES, PURS AND POTHEADS. FEEDER RUN FROM WEST 49TH ST S/S TO SPRAINBROOK SUBSTATION.

DEC# 98-12964 Conference call 13:30. TO crews to check Manhattan and Westchester manholes. CGO crews to check Bronx manholes. CSD to check Pumphouses and Purs and valves at Sprainbrook Sta. PFT van #1 to go South from 125th St and B'Way. PFT van #2 to go North from 125th St and B'Way. MEG notified to standby and arrived on location at 125th St and B'Way at 16:00. VNR notified and crews standing by in yard in Harlem. ATC notified for possible air monitoring if necessary. As per CIG S&D was not called out to check the Harlem River at Tremont Ave since the fluid loss (1.5 GPH) would not be able to be seen on the surface.

20:15 all manholes in Westchester have been checked - no leak found. At 20:20 Chem Lab found indications of PFT at 84th St and West End Ave. Barhole crew to barhole area.

20:30 conference call: Large signal found in subsurface @ 85th St.; Manhattan Area completely checked for PFT; PFT van to check Bronx run; All Bronx manholes checked - except MH27009- no leak found; At 21:30 Manhattan manholes have been checked - no leak. At 21:40 all Pumphouses and Purs checked - no leak. Barholes finished on 11-7 shift 1/22/99. PFT samples taken. Highest PFT indications found at intersection of West End Ave & 86th St. Excavation crew on location and excavation started at 09:30 at intersection of 86th St and West End Ave. MH27009 checked - no leak. Area excavated - no leak found. 19:00 conference call: Higher concentration found north of 1st excavation. 2nd excavation started approx 30' north of 1st. Dielectric fluid found in trench. Excavation continues south - Leak found and clamped by 02:00 1/23/99. Chem lab took samples and reported 99-00700 <1.0ppm PCB's; 99-00755 .466 ppm total benzene in soil and 99-00701 23.5 and 23.4 total benzene in oil. No TCLP results were given. Temp EPA ID# NYP004035317 received from ERT for CTW disposal. Excavation continues for permanent repairs. Welding started at 15:00 1/23/99. 220 style repair barrel welded over temp clamp @ 04:15 1/24/99. ETI made inspection of weld. CSD notified. MEG removed 43 cubic yards of soil and 100 gallons of fluid from trench at leak site at 23:00 1/23/99. MEG installed recovery well at leak location. During well installation MEG removed an additional 90 gallons of dielectric fluid from trench. DEC notified of leak and well installation. Chris Engelhardt (NYSDEC) requested soil samples to be taken by Chem Lab.

MEG could not take samples from soil at bottom of trench since bottom of trench is rock. On 4/1/99 and 4/9/99 MEG removed booms

from sewers – approx 1 cubic yard of material each time. CSD reports 288 gallons lost due to leak. Report from MEG geologist received on 4/7/99. On 8/3/99, 8/12/99, 8/20/99, 8/27/99, 9/1/99, 9/10/99, 9/16/99, 9/24/99, 9/30/99, 10/20/99 MEG replaced sorbents in sewers at 86th St and West End Ave and disposed of 1 cubic yard of material.

Sample ID No. 99-00700 For what parameters? X PCB X BENZENE Recovered oil 190 GALLONS Excavated contaminated soil, bluestone. Excavated soil/bluestone 43 CUBIC YARDS Wells installed. Cleanup completed on 01/23/99 at 23:00

Map Identification Number 296 **WISE TOWERS** **NEW YORK, NY** **Spill Number: 9416405** **Close Date: 05/30/1996**
 49 WEST 89TH STREET TT-Id: 520A-0098-783

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2326 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER Spiller: NYC HOUSING AUTHORITY Spiller Phone: (212) 306-3142
 Notifier Type: Responsible Party Notifier Name: NYC HOUSING AUTHORITY Notifier Phone:
 Caller Name: ED MALONE Caller Agency: NYC HOUSING AUTHORITY Caller Phone: (212) 306-8480
 DEC Investigator: HEALY Contact for more spill info: Contact Person Phone:

Category: Known or probable release, where, without action, there is a potential for a fire/explosion hazard (indoors or outdoors), contamination of drinking water supplies, or significant release to surface waters.

Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------------|---------------------|------------------|-------------------------|--------------------|---------------------|----------------------|
| 03/20/1995 | | TANK OVERFILL | NO | | NO | |
| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
| #2 FUEL OIL | PETROLEUM | 365.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

TRUCK DRIVER WAS INSTRUCTED TO FILL THE WRONG TANK. OIL WAS CONTAINED IN VAULT BUT CONCRETE FLOOR IN VAULT HAD HOLE IN IT-OIL SEEPED INTO GROUND. WINSTON TO REMEDIATE.

DEC Investigator Remarks: DEC INVESTIGATOR REMARKS NOT AVAILABLE FOR THIS SPILL ACCORDING TO THE LAST UPDATE.

The following DEC Investigator Remarks were available prior to 1/1/2002:

Spill number closed out following operation of a vapor recovery system at the site from April 1995 through March 1996. Air sample

were taken approximately monthly, and indicated progressive removal of all petroleum vapors from the subsurface. Final monitoring with HNu meter on March 13 showed no vapors.

Map Identification Number 297 **APARTMENT BUILDING**



19 WEST 89TH STREET

NEW YORK CITY, NY

Spill Number: 0310328

Close Date: 02/20/2004

TT-Id: 520A-0098-775

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 2332 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Source of Spill: PRIVATE DWELLING

Notifier Type: Tank Tester

Caller Name: ANTHONY LARA

DEC Investigator: CESAUYER

Spiller: ANTHONY LARA – APARTMENT BUILDING

Notifier Name: ANTHONY LARA

Caller Agency: PETROLUEM TANK CLEANERS

Contact for more spill info: ANTHONY LARA

Spiller Phone: (718) 625-4842

Notifier Phone: (718) 624-4842

Caller Phone: (718) 624-4842

Contact Person Phone: (718) 625-4842

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 12/05/2003 | | EQUIPMENT FAILURE | NO | NO |

NO MATERIAL INFORMATION GIVEN FOR THIS SPILL

Caller Remarks:

noticed fill line was leaking, oil leaked out: fill line being replaced and oil cleaned up.

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was SAWYER 12/10/2003 Sangesland spoke with Big Anthony at Petroleum Tank Cleaners about the site.

Property manager: Barry Zonon of Tri Management 212-675-0593

On 12/5/03 the building owner/manager called PTC to say he had a leak around his fill line. PTC inspected the line and gave the owner 2 proposals. One proposal was to remove and replace the fill line (from front of building, down an old coal chute into the basement). This proposal was approved by the owner and was being done on 12/10/2003.

The second proposal was to clean up the contamination in both the basement and in front of the building. As of 12/10/03 this proposal had NOT been approved by the owner.

2/20/04 – Sawyer – Talked to PTC and they confirmed that they removed one fill pipe and cemented the area and installed a new one. Closed.

Map Identification Number 298 **TRANSFORMER** **Spill Number: 1205821** **Close Date: 08/01/2013**
 W 78TH ST & RIVERSIDE DR MANHATTAN, NY TT-Id: 520A-0279-316

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 2367 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: W 78TH ST / RIVERSIDE DR
 Revised zip code: 10024

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: ERT – CON EDISON Spiller Phone:
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: Caller Phone:
 DEC Investigator: RWAUSTIN Contact for more spill info: ERT Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.

Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 09/11/2012 | | EQUIPMENT FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| DIELECTRIC FLUID | PETROLEUM | 150.00 | GALLONS | 0.00 | GALLONS | |

Caller Remarks:

On going leak contained inside vault. Cleanup is pending.

DEC Investigator Remarks:

8/1/13 – Austin – Originally reported as 150 gals, Con Ed revised the quantity to 30 gals of dielectric fluid spilled in the vault from the faulty transformer – Con Ed contained and cleaned up the spill, and replaced the transformer – See eDocs files for further information – Spill closed – end

Map Identification Number 299

ROADSIDE

Spill Number: 0107530

Close Date: 09/01/2003



2000 BROADWAY

MANHATTAN, NY

TT-Id: 520A-0095-261

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2413 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: TANK TRUCK
 Notifier Type: Responsible Party
 Caller Name: TONY PERETTA
 DEC Investigator: RWAUSTIN

Spiller: TONY PERRATA – MYSTIC TRANSPORTATION
 Notifier Name:
 Caller Agency: MYSTIC TRANSPORTATION
 Contact for more spill info: TONY PERETTA

Spiller Phone: (718) 932-9075 ext. 2
 Notifier Phone:
 Caller Phone: (718) 932-9075 ext. 2
 Contact Person Phone: (718) 932-9075

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – DEC Field Response – Corrective Action Initiated, Taken Over, or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | Penalty Recommended |
|------------|---------------------|-------------------|-------------------------|---------------------|
| 10/23/2001 | | EQUIPMENT FAILURE | NO | NO |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 100.00 | GALLONS | 75.00 | GALLONS | SOIL |

Caller Remarks:

DECK HOSE BROKE ON TANK TRUCK CAUSING SPILL – SEWER ALSO AFFECTED CLEAN UP CREW CONTACTED

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was AUSTIN 10/23/01 ROBERT CROSSEN ON SITE. HOSE ON MYSTIC FUEL DELIVERY TRUCK BROKE, ABOUT 100 GALLONS SPRAYED OUT BEFOR THE DRIVER COULD SHUT OFF. OIL OVER 3 TREES, 3 CAR, SIDE WALK, AND BUILIDING. SEVERAL PEDESTRIANS ALSO WERE COVERED. MYSTIC RESPONDED AND HIRED CASTLTON TO RESPOND. VACED UP PRODUCT, CLEANED CATCH BASIN ABOUT 25 GALLONS LOST TO STORM SEWER, CARS WERE CLEANED AND THE TREES HOSED DOWN. CLEANUP SATISFACTORY. CASTLTON WILL SEND REPORT WITH DISPOSAL RECEIPTS. DEP ISSUED APPERANCE TICKET. REPORT DUE 11/30/01

9/01/03 – AUSTIN – REQUESTED REPORT RECD 11/2/01 BY DEC. CLOSE SPILL IN DATABASE – ORIG. ASSIGNED TO CROSSEN, WHO WAS ASSISTING WITH REGIONAL SPILL REPSONSE COVERAGE DURING THE WTC EVEN – END

Map Identification Number 300 **144 WEST 90TH STREET**
 144 WEST 90TH STREET

MANHATTAN, NY

Spill Number: 9209074

Close Date: 11/05/1992
 TT-Id: 520A-0091-913

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 2508 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Source of Spill: INSTITUTIONAL, EDUC, GOV, OTHER
 Notifier Type: Other
 Caller Name: JIM CAREY
 DEC Investigator: KSTANG

Spiller:
 Notifier Name:
 Caller Agency: CASTLE OIL
 Contact for more spill info:

Spiller Phone:
 Notifier Phone:
 Caller Phone: (718) 823-8800
 Contact Person Phone:

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP - No DEC Field Response - Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 11/05/1992 | 11/05/1992 | EQUIPMENT FAILURE | UNKNOWN | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|----------------------|
| #2 FUEL OIL | PETROLEUM | 100.00 | GALLONS | 0.00 | GALLONS | SOIL |

Caller Remarks:

DEFECTIVE GAGE-SPILL ON CONCRETE FLOOR OF BOILER ROOM-ALSO OUTSIDE ON PAVEMENT AT VENT AND SOME IN STORM DRAIN SCHOOL INITIATING CLEANUP

DEC Investigator Remarks:

Prior to Sept, 2004 data translation this spill Lead_DEC Field was TANG

Map Identification Number 301 **VAULTS V9112/V9328/V9500/SB12447**
 WEST 68TH ST AND BROADWAY

MANHATTAN, NY

Spill Number: 1102137

Close Date: 07/22/2011
 TT-Id: 520A-0263-299

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 2532 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: WEST 68TH ST / BROADWAY
 Revised zip code: NO CHANGE

Source of Spill: COMMERCIAL/INDUSTRIAL Spiller: CYRSTAL HEATING Spiller Phone:
 Notifier Type: Responsible Party Notifier Name: Notifier Phone:
 Caller Name: Caller Agency: Caller Phone:
 DEC Investigator: RWAUSTIN Contact for more spill info: ERT Contact Person Phone: (212) 580-8383

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 05/26/2011 | | EQUIPMENT FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | | Quantity Recovered | | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|-----------------------------|
| | | Units | | Units | | |
| #4 FUEL OIL | PETROLEUM | 170.00 | GALLONS | 170.00 | GALLONS | IMPERVIOUS SURFACE, UTILITY |

Caller Remarks:

170 gallons of #2 was lost to vaults v9328, v9500, v9112 and manhole sb1244 due to loss from delivery truck, clean up pending

DEC Investigator Remarks:

6/2/11 – Raphael Ketani. I spoke to David Duke at the Con Ed environmental desk (212) 580-8383. He sent me the EMIS report (#225923). A total of 71 gals. of fuel oil had spilled into the 3 vaults and the manhole. These are vaults V9112, V9328, V9500 and SB12447. PCB and flash point samples were taken. One sample had 13 ppm of PCB. Clean Ventures came and sucked out the oil and cleaned the vaults and manhole. The work was completed on 5/31/11.

7/22/11 – Austin – See spill # 1102131, for the fuel truck spill. Thee adjoining Con Ed service vaults were impacted – Con Ed contained and cleaned up the spill – See the documents in eDocs files for more info – Spill closed – end

Map Identification Number 302



**ON SOUTH SIDE OF WEST 68 STREET
 BETWEEN AMSTERDAM AVE AND
 BROADWAY**

MANHATTAN, NY

Spill Number: 1102131

**Close Date: 06/06/2011
 TT-Id: 520A-0263-404**

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (4)
 Approximate distance from property: 2582 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: S SIDE OF W 68TH ST
 Revised zip code: NO CHANGE

| | | |
|--|--|--------------------------------------|
| Source of Spill: COMMERCIAL/INDUSTRIAL | Spiller: 1995 BROADWAY | Spiller Phone: |
| Notifier Type: Other | Notifier Name: | Notifier Phone: |
| Caller Name: | Caller Agency: | Caller Phone: |
| DEC Investigator: RVKETANI | Contact for more spill info: DIV CHIEF CARLSEN | Contact Person Phone: (718) 430-0220 |

Category: Known petroleum or hazardous material release with minimal potential for fire/explosion (indoors or outdoors), drinking water contamination, or releases to surface waters.
 Class: Willing RP – No DEC Field Response – Corrective Action Initiated or Completed by RP or Other Agency

| Spill Date | Date Cleanup Ceased | Cause of Spill | Meets Cleanup Standards | | Penalty Recommended | |
|------------|---------------------|-------------------|-------------------------|--|---------------------|--|
| 05/26/2011 | | EQUIPMENT FAILURE | NO | | NO | |

| Material Spilled | Material Class | Quantity Spilled | Units | Quantity Recovered | Units | Resource(s) Affected |
|------------------|----------------|------------------|---------|--------------------|---------|--|
| #4 FUEL OIL | PETROLEUM | 200.00 | GALLONS | 200.00 | GALLONS | INDOOR AIR SEWER IMPERVIOUS SURFACE UTILITY |

Caller Remarks:

spill coming from unknown source – FD on scene now – no other information avail

DEC Investigator Remarks:

FD on scene.Approx 70 gallon #4 oil on the street,spilled from delivery truck.FD in the process of checking the tank room.FD could not provide truck company's name.Raphael Ketani responding to the site.

5/26/11 – Raphael Ketani. I arrived on the scene and saw about 20 pieces of NYFD equipment along Broadway, in front of the affected building (1995 Broadway), along West 68th Street, and along Amsterdam Avenue – the other street bounding West 68th Street. I met Deputy Chief Carlsen of the NYFD Division 3, Mr. Elliott – DOS inspector, Eric Sutphen – HESS (732) 750-6000, and Gavin_Ajahi Navarro – DEP Hazmat. Later, a Con Ed representative was on site.

I saw a line of free product along the curb on the south side of West 68th Street. Free product had pooled in front of the driveway to the garage for 1995 Broadway and in front of the driveway to the neighboring condominium building to the west. There was a little staining of a manhole cover which was in front of the driveway to the neighboring building. This made a line of about 120 feet of free product. The sidewalk and 3 Con Ed vaults next to 1995 Broadway were also affected (associated spill #1102137/EMIS #225923). The entire width of the sidewalk (15') was covered in oil next to the middle Con Ed vault. There was oil on the side of the building. This affected only some metal sheeting. I looked inside the middle vault (the only one I could easily see into) and didn't see free product inside, except for in a square, depression in the bottom of the vault. The fill port was in the sidewalk about 4 feet from the middle vault and was covered in oil. The passenger side of three parked cars were also covered in oil. The Crystal Transportation fuel delivery truck was still parked on site.

I spoke to Mr. Sutphen regarding how the spill happened and how bad it was. He said that about 150 gals. of #4 oil sprayed onto the street and the sidewalk and 60 gals. spilled under the tank in 1995 Broadway. He said that the building received a delivery yesterday up to a total volume of 8,000 gal. for the 20,000 gal. The super ordered another delivery today and the delivery truck driver pumped more oil into the tank. However, in the process of making the delivery, the oil started spraying out of the fill port in the sidewalk. It turned out that the gauge on the tank wasn't reading the volumes correctly. I asked Mr. Sutphen why the super. didn't know how much he needed. Mr. Sutphen said that the only way to tell how much oil should be delivered was for the super to keep delivery records. Mr. Sutphen didn't know whether the super kept such records. I told Mr. Sutphen about the stained Con Ed manhole cover and that some oil may have gotten down there. I also asked him about the sprayed cars. He said that the super told him that the owners will take their cars to the car wash and the building will reimburse them for the expense.

After viewing the spill on the street, I met the super and he showed me the tank room. The AST was on saddles. I could see a large stain with absorbent sand at the right end and a pool of free product under the left end of the tank. The super showed me the place on top of the tank where the oil had escaped and run down the sides. It seemed as if about 40 or 50 gallons of oil had spilled out. The vapors were noticeable in the tank room and less noticeable in the boiler room adjacent to the tank room. The odors were very slight outside of these two rooms and were not apparent in the basement hallway.

At about 1:30PM, the guzzler from Riteway Tank arrived. The delivery truck driver drove his truck away and the crew from Riteway started sucking up the oil on the street. The NYFD brought in their small fire truck for spraying the Con Ed vaults, if they should catch fire. I spoke to the crew from Riteway and they said that they will clean up the tank room after they clean up the street. The NYFD started removing their trucks. Everything looked to be under control. So I left the scene.

6/2/11 – Raphael Ketani. I tried to contact Mr. Sutphen (732) 750-6000 to see whether the spill had been cleaned up, but I could only leave a message. I contacted the Con Ed environmental desk (212) 580-8383, but they couldn't talk to me at the time regarding cleaning up the manhole (spill #1102137/EMIS #225923).

A little while later, I spoke to David Duke at the Con Ed environmental desk. He sent me the EMIS report. A total of 71 gals. of fuel oil had spilled into the 3 vaults and the manhole. These are vaults V9112, V9328, V9500 and SB12447. PCB and flash point samples were taken. One sample had 13 ppm of PCB. Clean Ventures came and sucked out the oil and cleaned the vaults and manhole. The work was completed on 5/31/11.

6/3/11 – Raphael Ketani. I made an unannounced site visit. I inspected the street and the sidewalk. All of the oil had been cleaned up. There were no oil odors and only very faint staining on the asphalt. The side of the building had also been cleaned. Next, I met Warren Ward, Jr., the building engineer (212) 362-1137/1139 – warrenw@cammebys.com. He showed me the tank room. The tank room was next to the boiler room. There were no oil odors. I sensed light oil odors only when Mr. Ward opened up the doors to the tank room. I asked him whether anyone had complained of odors. He said No. I could see many dark oil stains on the floor under the right end of the tank. Mr. Ward said that Riteway was coming back to repeat the power washing at this end. I saw two long, wide, wet oil marks on the side of the tank. I asked Mr. Ward whether any fittings or the man way gasket was leaking. He said that the stains were due to the original overfill and that nothing was loose. Next, I saw a line of drip marks under the left end of the tank. Again, I asked Mr. Ward whether there was a problem such as a seam that was about to open up. Mr. Ward said that this was also due to the overfill.

I returned to the office and contacted Eric Sutphen (732) 750-6637. I told Mr. Sutphen about the staining on the floor under each end of the tank and about the wide stains on the side of the tank. I added that someone needed to look at the top and under side

of the tank to see whether there are any loose fittings or whether a seam is about to break. Mr. Sutphen said that he will call Riteway and have them check out the situation and do more cleaning.

A little while later, Mr. Sutphen called and told me that Riteway is going to return to the tank today and check out the stains and the tank itself.

6/6/11 – Raphael Ketani. Mr. Sutphen (732) 750–6637 called me back. He said that Riteway was at the site friday (6/3/11). They cleaned up the top of the tank and the sides. Absorbent pads were put down to absorb any further dripping. The bottom of the tank was checked and there are no leaking seams. Mr. Sutphen added that the dripping is coming from the pillar (an enclosure around the vent pipe that is built into the surface covering for the building and contains the vent pipe). A few gallons of oil became trapped there and this is what is dripping out. The pads should be sufficient to contain the dripping.

As the spill was completely cleaned up on the street, in the Con Ed vaults and manhole, and is now very minor dripping of a small quantity of oil that is contained by the absorbent pads, and as there are no vapors outside of the tank room, I have determined that there are no impacts nor threats to the environment or to people. Therefore, I am closing the spill case.

THE FOLLOWING CLOSED SPILLS FOR THIS CATEGORY WERE REPORTED BETWEEN 1/8 MILE AND 1/2 MILE FROM THE SUBJECT ADDRESS. THESE SPILLS WERE REPORTED TO BE LESS THAN 100 UNITS IN QUANTITY AND CAUSED BY: EQUIPMENT FAILURE, HUMAN ERROR, TANK OVERFILL, DELIBERATE SPILL, TRAFFIC ACCIDENT, HOUSEKEEPING, ABANDONED DRUM, VANDALISM OR STORMS. THESE SPILLS ARE NEITHER MAPPED NOR PROFILED IN THIS REPORT.

| FACILITY ID | FACILITY NAME | STREET | CITY |
|-------------|--------------------------|---------------------------|-----------|
| 1310773 | APT COMPLEX | 15 WEST 75TH ST | MANHATTAN |
| 9911443 | SPILL NUMBER 9911443 | 14 W 83RD ST | MANHATTAN |
| 1502684 | CENTRAL PARK | W81 STREET | MANHATTAN |
| 0311537 | CENTRAL PARK BUILD. | 81ST STREET & WEST DRIVE | NYC |
| 9809382 | MANHOLE #29445 | CENTRAL PARK W AND W 77TH | MANHATTAN |
| 9007953 | 221–26 CENTRAL PARK WEST | 221–26 CENTRAL PARK WEST | MANHATTAN |
| 1402568 | IFO | 106 WEST 75TH STREET | MANHATTAN |
| 9914622 | MANHOLE #29453 | W 82ND ST & CENTRAL PK WS | MANHATTAN |
| 0650371 | APARTMENT | 48 WEST 84TH STREET | NEW YORK |
| 0211813 | SPILL NUMBER 0211813 | 227 CENTRAL PARK WEST | MANHATTAN |
| 9305485 | 169 WEST 80TH STREET | 169 WEST 80TH STREET | MANHATTAN |
| 9408575 | 40 W. 84TH STREET | 40 W. 84TH STREET | MANHATTAN |
| 9812027 | SPILL NUMBER 9812027 | 36 WEST 84TH ST | MANHATTAN |
| 0608978 | APARTMENT | 170 WEST 78TH STREET | NEW YORK |
| 0803964 | STREET COMPRESSOR | 421 AMSTERDAM AVE | NEW YORK |
| 1311311 | APT BUILDING | 175 WEST 76 ST | NEW YORK |
| 1309030 | APT BUILDING | 175 WEST 76TH STREET | NEW YORK |
| 9415205 | 155 W. 83RD ST | 155 W. 83RD ST | MANHATTAN |
| 9311290 | 155 WEST 83TH STREET | 155 WEST 83TH STREET | MANHATTAN |
| 0108699 | SPILL NUMBER 0108699 | 155 WEST 83RD ST | MANHATTAN |
| 0000233 | SPILL NUMBER 0000233 | 155 WEST 83RD ST | MANHATTAN |

| | | | |
|---------|--|---------------------------|---------------|
| 0100096 | PROHIBITION | 503 COLUMBUS AVE | NEW YORK |
| 9603575 | 455 AMSTERDAM AVE | 455 AMSTERDAM AVE | MANHATTAN |
| 9510636 | 54 WEST 74TH ST | 54 WEST 74TH ST | MANHATTAN |
| 1407072 | TANK ROOM | 54 WEST 74TH ST | MANHATTAN |
| 0101621 | ' VAULT 8754' | 135 WEST 74TH ST | MANHATTAN |
| 9904107 | MANHOLE 25886 | WEST 79TH ST/AMSTERDAM AV | MANHATTAN |
| 9606869 | ' AMSTERDAM AVE' | WEST 79 TH STREET | NYC |
| 1501989 | STREET | AMSTERDAM AVE AND 79TH ST | MANHATTAN |
| 0110393 | 79TH ST | AMSTERDAM AVE & 79TH ST | NEW YORK CITY |
| 0107341 | PS 87 | WEST 78TH/AMSTERDAM AVE | MANHATTAN |
| 9911724 | 31 WEST 84TH ST | 31 WEST 84TH ST | MANHATTAN |
| 9203092 | 36 W 74TH ST | 36 W 74TH ST | NYC |
| 1505956 | SOIL | 15 W 84TH ST | MANHATTAN |
| 9802298 | SPILL NUMBER 9802298 | 424 AMSTERDAM AVE | MANHATTAN |
| 0109776 | BRUSCO RES | 67 WEST 73RD ST | MANHATTAN |
| 9711224 | RESIDENCE | 412 AMSTERDAM AVE | NEW YORK |
| 0304747 | APT BUILDING | 200 WEST 79TH ST | MANHATTAN |
| 0013001 | SPILL NUMBER 0013001 | 201 WEST 77TH ST | MANHATTAN |
| 9512768 | 10 WEST 74TH ST | 10 WEST 74TH ST | MANHATTAN |
| 0211227 | X | 10 WEST 74TH ST | MANHATTAN |
| 0105683 | 23 WEST 73RD ST | 23 WEST 73RD ST | MANHATTAN |
| 0503395 | CON ED VEHICLE 60565 | 344 AMSTERDAM AVE/W 76TH | MANHATTAN |
| 9900719 | SPILL NUMBER 9900719 | 241 CENTRAL PARK WEST | NEW YORK |
| 9400203 | 125 W. 73RD STREET | 125 W. 73RD STREET | NEW YORK |
| 1401469 | COMMERCIAL BUILDING – VERIZON TELEPHONE EXCHANGE | 125 WEST 73RD STREET | MANHATTAN |
| 1110255 | COURT YARD | 125 WEST 73RD ST | MANHATTAN |
| 1100737 | VERIZON BUILDING | 125 WEST 73RD ST | MANHATTAN |
| 0601028 | VERIZON | 125 WEST 73RD STREET | MANHATTAN |
| 0100776 | VERIZON | 125 WEST 73RD ST | NEW YORK |
| 8907431 | 203 W 77TH ST/RENT A WREC | 203 WEST 77TH STREET | NEW YORK CITY |
| 9815538 | VAULT #5776 | 106-48 WEST 85ST | MANHATTAN |
| 1411311 | CONCRETE FLOOR | 334 AMSTERDAM AVE | NEW YORK |
| 0713513 | ROADWAY | 279 COLUMBUS AVE | MANHATTAN |
| 9604061 | APT BUILDING | 204 WEST 81ST ST | MANHATTAN |
| 9406607 | 204 W. 81ST STREET | 204 W. 81ST STREET | NEW YORK |
| 9510710 | 206 W. 80TH ST | 206 W. 80TH ST | NEW YORK |
| 0100236 | RESIDENCE | 135 CENTRAL PARK WEST | MANHATTAN |
| 9612346 | APT HOUSE | 215 W.78TH ST | NEW YORK |
| 0313117 | SPILL NUMBER 0313117 | 215 WEST 78TH ST | MANHATTAN |
| 9511396 | 100 WEST 73RD ST | 100 WEST 73RD ST | NEW YORK |
| 0110078 | SPILL NUMBER 0110078 | 215 WEST 79TH ST | MANHATTAN |
| 0601224 | NATIONAL CAR RENTAL | 219 WEST 77TH STREET | NEW YORK |
| 0710705 | APPT BUILDING | 157 WEST 73RD STREET | NEW YORK |
| 9514644 | 220 WEST 79TH ST | 220 WEST 79TH ST | NEW YORK CITY |

| | | | |
|---------|-----------------------------------|-------------------------------|---------------|
| 9313678 | 130 WEST 73RD STREET | 130 WEST 73RD STREET | NEW YORK |
| 9313651 | 130 WEST 73RD STREET | 130 WEST 73RD STREET | MANHATTAN |
| 9315420 | 216 WEST 76TH STREET | 216 WEST 76TH STREET | MANHATTAN |
| 0312459 | SPILL NUMBER 0312459 | 160 WEST 85TH STREET | MANHATTAN |
| 8809399 | 41 W. 72ND ST | 41 W. 72ND ST | MANHATTAN |
| 9000624 | 85TH ST&CENTRAL PARK WEST | 85TH ST&CENTRAL PARK WEST | NEW YORK CITY |
| 0609200 | MIKVAH | 232-234 WEST 78 STREET | MANHATTAN |
| 1300513 | RUDIN MANAGEMENT | 40 WEST 86TH ST | MANHATTAN |
| 1214441 | CORLISS ESTATE INC | 40 WEST 86TH ST | NEW YORK |
| 1104762 | PRIVATE DWELLING | 40 WEST 86TH | MANHATTAN |
| 0109971 | 40 WEST 86TH STREET | 40 WEST 86TH STREET | MANHATTAN |
| 9306612 | 1 WEST 85TH STREET | 1 WEST 85TH STREET | NEW YORK |
| 9306185 | 1 WEST 85TH STREET | 1 WEST 85TH STREET | MANHATTAN |
| 0310188 | SIDEWALK | 1 WEST 85TH STREET | NEW YORK |
| 1112010 | SOIL | 2182 BROADWAY | NEW YORK |
| 0305398 | TM0964 | 225 W. 77TH ST | MANHATTAN |
| 9811944 | 117 WEST 72 STREET | WALTER COOK FUNERAL HOME | MANHATTAN |
| 9712410 | OFFICE BLDG - FORMER FUNERAL HOME | 117 WEST 72ND ST | MANHATTAN |
| 9310292 | 117 WEST 72ND STREET | 117 WEST 72ND STREET | MANHATTAN |
| 9213253 | 117 WEST 72ND STREET | 117 WEST 72ND STREET | MANHATTAN |
| 9110170 | 117 W 72ND ST/WALTER B.C. | 117 W 72ND ST | NYC |
| 9403602 | 121 WEST 72ND STREET | 121 WEST 72ND STREET | NEW YORK CITY |
| 9212855 | 2130 BROADWAY | 2130 BROADWAY | NYC |
| 9104154 | 150 W 73RD ST | 150 W 73RD ST | NYC |
| 9904453 | MANHOLE #29419 | W 73RD ST & CENTRAL PK W | MANHATTAN |
| 9400795 | 131 W.72ND STREET | 131 W. 72ND STREET | NEW YORK |
| 1010759 | ALEXANDER WOLFE REALTY | 10 WEST 86 TH ST | MANHATTAN |
| 9911339 | WALKER RESIDENCE | 225 WEST 80TH ST | MANHATTAN |
| 1000721 | IN THE ROADWAY | 240 WEST 79TH ST | MANHATTAN |
| 9211310 | 76TH ST BET. BROADWAY | 76TH ST BET BROADWAY | NEW YORK |
| 0708111 | TRANSIT | WEST 86TH /COLUMBUS AVE | NEW YORK |
| 0601467 | LEAK FROM TRANSFORMER #3057 | WEST 86 STREET & COLUMBUS AVE | MANHATTAN |
| 0110610 | SPILL NUMBER 0110610 | 86TH ST & COLUMBUS AV | MANHATTAN |
| 0105629 | ROADWAY | W 86TH ST & COLUMBUS AVE | NEW YORK |
| 0404419 | INTERSECTION | 72ND ST / COLUMBUS AVE | MANHATTAN |
| 0709217 | APRTMENT | 140 WEST 86TH STREET | MANHATTEN |
| 0500614 | BULILDING | 140 WEST 86TH STREET | MANHATTAN |
| 0804641 | ON STREET | BROADWAY /75TH STREET | MANHATTAN |
| 0409950 | RESIDENCE | 163 WEST 85TH ST | MANHATTAN |
| 1405120 | ROADWAY | 77TH / BROADWAY | MANHATTEN |
| 9709701 | APT BLDG | 2112 BROADWAY | MANHATTAN |
| 0301262 | SPILL NUMBER 0301262 | 2100 BROADWAY | NEW YORK |
| 0301257 | APPLE BANK | 2112 BROADWAY | MANHATTAN |
| 9516341 | 269-75 AMSTERDAM AVENUE | 269-75 AMSTERDAM AVENUE | NEW YORK |

| | | | |
|---------|---------------------------|-------------------------------|---------------|
| 0601671 | ROADWAY | 79TH STREET/ BROADWAY | MANHATTAN |
| 0711780 | APRT | 50 WEST 72ND STREET | NEW YORK |
| 0510405 | APARTMENT | 45 WEST 86TH STREET | MANHATTAN |
| 0209508 | SPILL NUMBER 0209508 | 27 W 86TH ST | MANHATTAN |
| 0409728 | 20 WEST 72ND ST | 20 WEST 72ND ST | MANHATTAN |
| 9008767 | 123 WEST 86TH ST/MANH | 123 WEST 86TH STREET | NEW YORK CITY |
| 0110029 | SPILL NUMBER 0110029 | 115 W. 86TH ST | MANHATTAN |
| 9407299 | 21 W. 86TH ST | 21 W. 86TH ST | MANHATTAN |
| 9712363 | 127 WEST 86TH ST | 127 WEST 86TH ST | MANHATTAN |
| 0707626 | STREET SPILL | 86TH ST/CENTRAL PL WEST | MANHATTAN |
| 9314384 | 235 WEST 76TH STREET | 235 WEST 76TH STREET | MANHATTAN |
| 0811804 | 235 WEST 76TH ST | 235 WEST 76TH ST | MANHATTEN |
| 0000737 | CARAN PROPERTIES | 235 W 75TH ST | MANHATTAN |
| 9911858 | BELLECLAIRE HOTEL | 250 W 77TH ST | NEW YORK |
| 9911658 | BELLECLAIRE HOTEL | 250 WEST 77TH STREET | NEW YORK |
| 0603176 | BELLE CLAIRE HOTEL | 250 WEST 77TH STRET | MANHATTAN |
| 0212729 | BELLECLAIRE HOTEL | 250 WEST 77TH STREET | NEW YORK |
| 9809564 | 131 W 86TH ST | 131 W 86TH ST | MANHATTAN |
| 0610931 | THE JEWISH CENTER / APART | 131 WEST 86TH ST | NEW YORK |
| 9211666 | 233 W. 77TH ST. | 233 W. 77TH ST. | MANHATTAN |
| 0308388 | SPILL NUMBER 0308388 | CENTRAL PK WEST/72ND ST | MANHATTAN |
| 0809874 | ODOR COMPLAIN | 250 W. 78TH ST | MANHATTAN |
| 9210572 | 203 WEST 85TH AVE | 203 WEST 85TH AVE | MANHATTAN |
| 9814593 | 115 CENTRAL PARK WEST | 115 CENTRAL PARK WEST | MANHATTAN |
| 9611715 | 241 WEST 75TH ST | 241 WEST 75TH ST | MANHATTAN |
| 9004567 | 124 WEST 87TH ST/MANH | 124 WEST 87TH STREET | NEW YORK CITY |
| 9009087 | 242 WEST 76TH ST/MANH | 242 WEST 76TH STREET | NEW YORK CITY |
| 0010100 | VAULT 2188 | 258 AMSTERDAM AV | MANHATTAN |
| 9911265 | 133-135 WEST 71ST STREET | 133-135 WEST 71ST STREET | MANHATTAN |
| 9608042 | APARTMENT BUILDING | 17 WEST 71ST ST | NEW YORK CITY |
| 9612997 | 249 WEST 76TH ST | 249 WEST 76TH ST | MANHATTAN |
| 1002489 | PRIVATE DWELLING | 142 WEST 87TH STREET APT. 1B | MANHATTAN |
| 0612514 | FIVE GAL IN VS #8706 | WEST 71 STREET & COLUMBUS AVE | MANHATTAN |
| 9516342 | AMSTERDAM AVE / COR | W. 72ND ST/ AMSTERDAM AVE | MANHATTAN |
| 9411753 | AMSTERDAM AVE / W 72ND ST | AMSTERDAM AVE / W 72ND ST | MANHATTAN |
| 9711062 | 2109 BROADWAY | 2109 BROADWAY | MANHATTAN |
| 9400880 | 252 W 76TH ST | 252 W 76TH ST | MANHATTAN |
| 9010504 | 174 WEST 72ND ST/MANH | 174 WEST 72ND STREET | NEW YORK CITY |
| 1214306 | RESIDENTIAL PROPERTY | 424 WESTEND AVE | NEW YORK |
| 0308515 | SPILL NUMBER 0308515 | 424 WEST END AV | MANHATTAN |
| 8809554 | 200 WEST 86TH ST | 200 W. 86TH ST | MANHATTAN |
| 0510057 | APRT BUILDING | 200 W 86TH ST | MANHATTAN |
| 0011825 | 200 WEST 86TH STREET | 200 WEST 86TH STREET | MANHATTAN |
| 9907551 | VAULT 4597 | 354-360 WEST END AVE | NEW YORK |

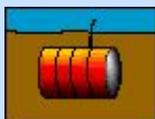
| | | | |
|---------|-------------------------------------|---------------------------|---------------|
| 9007524 | 37 WEST 87TH ST/MANH | 37 WEST 87TH STREET | NEW YORK CITY |
| 9214440 | CENTRAL PARK LAKE | 74TH ST / 75TH ST | MANHATTAN |
| 1503431 | ROADWAY | WEST 76 ST WEST END ST | MANHATTEN |
| 1306753 | APT BUILDING | 112 WEST 71 ST | NEW YORK |
| 9811566 | APARTMENT BLDG | 245 WEST 74TH ST | MANHATTAN |
| 9514752 | 245 W 74TH ST | 245 W 74TH ST | MANHATTAN |
| 8808089 | 245 WEST 74TH ST/MANHATTA | 245 WEST 74TH STREET | NEW YORK CITY |
| 0610110 | 171 WEST 71ST ST CORPORAT | 171 WEST 71ST ST | MANHATTAN |
| 9308063 | 470 WEST END AVE. | 470 WEST END AVE. | MANHATTAN |
| 1309212 | LEAKING #6 FUEL OIL FILL LINE | 470 WEST END AVENUE | MANHATTAN |
| 1213648 | SPILL OF #6 FUEL OIL TO PAVEMENT | 176 WEST 87TH ST | MANHATTAN |
| 9900060 | MANHOLE 27538 | WEST 85TH ST | MANHATTAN |
| 1005809 | SOIL CONTAMINATION AROUND FILL LINE | 2350 BROADWAY | MANHATTAN |
| 8905373 | THE DANIELLE | 140 W 71ST ST | MANHATTAN |
| 0008110 | MANHOLE 49876 | 81ST ST/WEST END AVE | MANHATTAN |
| 9814400 | VAULT 9262 | WEST 82ND ST+WEST END AVE | NEW YORK |
| 0711988 | RESIDANCE | 490 WEST END AVE | NEW YORK |
| 0312441 | SPILL NUMBER 0312441 | 490 WEST END AVE | MANHATTAN |
| 0408279 | AMERICAN MUSIC ACADEMY | 117 WEST 70TH STREET | MANHATTAN |
| 0003469 | SPILL NUMBER 0003469 | 117 WEST 70TH ST | MANHATTAN |
| 9414934 | 167 WEST 87TH STREET | 167 WEST 87TH ST | MANHATTAN |
| 9414917 | 167 WEST 87TH STREET | 167 WEST 87TH STREET | MANHATTAN |
| 0308671 | FRONT OF | 310 WEST END AVE | MANHATTAN |
| 0211665 | SPILL NUMBER 0211665 | 31 WEST 70TH ST | MANHATTAN |
| 9514647 | 125-127 W 70TH ST | 125-127 W 70TH ST | MANHATTAN |
| 9812057 | PROJECT FIND | 160 WEST 71ST STREET | MANHATTAN |
| 9611068 | 300 WEST END | 300 WEST END AVE | NEW YORK |
| 9512171 | 300 WEST END AVE | 300 WEST END AVENUE | MANHATTAN |
| 9512127 | 300 WEST END AVENUE | 300 WEST END AVENUE | MANHATTAN |
| 1411626 | APT BUILDING | 300 WEST END AVE | NY |
| 0303268 | IN ROADWAY | IFO 72 W 88TH ST | MANHATTAN |
| 0706336 | DRUM RUN | WEST 87TH & AMSTERDAM AVE | NEW YORK |
| 9309189 | 498 WEST END AVENUE | 498 WEST END AVENUE | MANHATTAN |
| 0209976 | CALHOUN SCHOOL | 433 WEST END AVENUE | MANHATTAN |
| 9910343 | SPILL NUMBER 9910343 | 411 WEST END AVE | MANHATTAN |
| 1408775 | UNKNOWN COMMERCIAL | 393 WEST END AVE | NEW YORK |
| 0902447 | IN THE STREET | 441 WESTEND AVE | MANHATTAN |
| 0001972 | SPILL NUMBER 0001972 | 441 WEST END AVE | MANHATTAN |
| 0209204 | SPILL NUMBER 0209204 | 290 WEST END AVE | MANHATTAN |
| 0712390 | NYC TRANSIT BUS | WEST 86TH & BROADWAY | MANHATTEN |
| 0704052 | 15 GALLON HYDRAULIC FLUID RELEASE | 247 WEST 72 STREET | MANHATTAN |
| 9200885 | 306 W 78TH ST | 306 W 78TH ST | NYC |
| 9907731 | SPILL NUMBER 9907731 | 2345 BROADWAY | MANHATTAN |
| 9607614 | APARTMENT BLDG | 104 WEST 70TH ST | MANHATTAN |

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|---------|-----------------------------------|---|---------------|
| 1107587 | MANHOLE 49908 | WEST 84TH ST AND WEST END AVE | MANHATTAN |
| 9301318 | 325 WEST END AVE | 325 WEST END AVE | MANHATTAN |
| 9515270 | DEBRA BURNS | 270 WEST 73RD STREET | MANHATTAN |
| 9909521 | 514 WEST END AVENUE | 514 WEST END AVE | MANHATTAN |
| 9414188 | 514 WEST END AVENUE | 514 WEST AVENUE | MANHATTAN |
| 0913348 | GERALD J PICASSO – MANAGING AGENT | 514 WEST END AVE | MANHATTAN |
| 1310341 | APT BUILDING | 101 CENTRAL PARK WEST | NEW YORK |
| 1006809 | APARTMENT HOUSE | 253 WEST 72ND | MANHATTAN |
| 0808763 | ROADWAY | WEST 79 TH ST BY WESTEND AVE & RIVERSIDE DR | MANHATTAN |
| 0708027 | APTS | 495 WEST END AVE | MANHATTAN |
| 0814056 | APARTMENT BUILDING | 240 WEST 72ND ST | MANHATTAN |
| 9407285 | 154 W. 70TH STREET | 154 W. 70TH ST | MANHATTAN |
| 1203045 | APARTMENT BUILDING | 2030 BROADWAY | MANHATTAN |
| 9516146 | 201 W 70TH ST | 201 W 70TH ST | MANHATTAN |
| 9214267 | 276 W 86 STREET | 276 W 86TH STREET | MANHATTAN |
| 0701893 | EDEN RESIDENCE | 321 WEST 78TH ST 4A | NEW YORK |
| 0701554 | BATHROOM APT 4A | 321 WEST 78TH ST | MANHATTAN |
| 0410461 | 522 WEST END AVE | 522 WEST END AVE | MANHATTAN |
| 9808617 | APARTMENT BLDG | 115 WEST 69TH ST | MANHATTAN |
| 0008242 | MANHOLE 61729 | WESTEND AVE 85TH ST | MANHATTAN |
| 0412575 | RTVS #5993 | WEST 88TH /AMSTERDAM AVE | MANHATTAN |
| 9413585 | 19 W. 69TH ST | 19 W. 69TH ST | MANHATTAN |
| 0105493 | GLIEBERMAN RESIDENCE | 133 WEST 69TH ST | MANHATTAN |
| 9109064 | 135 W 69TH ST/D SANDBORN | 135 W 69TH ST/D SANDBORN | MANHATTAN |
| 0208108 | X | 11 WEST 69TH ST | MANHATTAN |
| 9412996 | RESIDENCE | 321 WEST 82ND STREET | NEW YORK CITY |
| 9007056 | 320 WEST 76TH ST/MANH | 320 WEST 76TH STREET | NEW YORK CITY |
| 9011296 | 98 RIVERSIDE DR/MANH | 98 RIVERSIDE DRIVE | NEW YORK CITY |
| 9503832 | 80 RIVERSIDE DRIVE | 80 RIVERSIDE DRIVE | NEW YORK |
| 1210202 | INSIDE | 80 RIVERSIDE DRIVE | NEW YORK |
| 0805195 | APARTMENT BUILD | 316 WEST 84TH STREET | MANHATTAN |
| 9410131 | CHRISTIAN COMMUNITY INC. | 309 W. 74TH ST. | NEW YORK |
| 8804857 | HARSHIT CONSTRUCTION | 246 W 88TH ST | NYC |
| 0512072 | BUILDING | 255 WEST 71ST STREET | MANHATTAN |
| 0013657 | SPILL NUMBER 0013657 | 60 RIVERSIDE DR | NEW YORK |
| 9313840 | 261 WEST 71ST STREET | 261 WEST 71ST STREET | MANHATTAN |
| 9311832 | 39 WEST 89TH STREET | 39 WEST 89TH STREET | MANHATTAN |
| 9210925 | 39 WEST 89TH STREET | 39 WEST 89TH STREET | MANHATTAN |
| 1216853 | APARTMENT BUILDING | 310 W 85TH ST | MANHATTAN |
| 9412865 | 205 WEST 88TH ST | 205 WEST 88TH ST | MANHATTAN |
| 9313957 | 35 WEST 89TH STREET | 35 WEST 89TH STREET | MANHATTAN |
| 0900272 | APARTMENT HOUSE | 260 WEST END AVE | NEW YORK CITY |
| 1203665 | TO ROADWAY | 79TH ST @ RIVERSIDE DR | MAHATTAN |
| 0506702 | TRANSIT STREET SPILL | WEST 79TH AND RIVERSIDE D | MANHATTAN |

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|---------|---|--------------------------------------|---------------|
| 0506110 | NYS TRANSIT | 79TH ST & RIVERSIDE AVE | MANHATTAN |
| 9500014 | 244 W. 71ST STREET | 244 W. 71ST STREET | MANHATTAN |
| 1203088 | OPEN EXCAVATION SITE | 86TH ST AND WEST END AVE | MANHATTAN |
| 9308724 | 269 WEST 71ST STREET | 269 WEST 71ST STREET | MANHATTAN |
| 9410867 | 271 W. 71ST STREET | 271 W. 71ST | MANHATTAN |
| 0210053 | VAULT #5625 | CENTRAL PARK WEST/W 69TH | MANHATTAN |
| 9302362 | COLUMBIA AVE | CON ED | |
| 1012274 | PVT DWELLING/APT BUILDING | 129 WEST 89 ST | MANHATTAN |
| 1012266 | SIDEWALK AND APT | 129 WEST 89TH ST | MANHATTAN |
| 9506709 | 137 WEST 89TH STREET | 137 WEST 89TH STREET | NEW YORK |
| 9911285 | SPILL NUMBER 9911285 | 107 W. 68TH ST | MANHATTAN |
| 9305204 | 552 WEST END AVENUE | 552 WEST END AVENUE | MANHATTAN |
| 0907992 | 35 UNIT BROWNSTONE | 182 COLUMBUS AVE | MANHATTAN |
| 1600580 | ROADWAY | 89TH STREET/ AMSTERDAM AVE | NEW YORK |
| 0008812 | SPILL NUMBER 0008812 | 25 WEST 68TH ST | MANHATTAN |
| 0504055 | CLERMONT RIDING ACA | 175 WEST 89TH STREET | NEW YORK |
| 0413122 | RESIDENTIAL BUILDING | 22 RIVERSIDE DRIVE | MANHATTAN |
| 9712539 | 4 WEST 90TH ST | 4 WEST 90TH ST | MANHATTAN |
| 9412328 | 337 W. 84TH ST | 337 W. 84TH ST | MANHATTAN |
| 9602292 | 295 CENTRAL PARK WEST | 295 CENTRAL PARK WEST | MANHATTAN |
| 9000229 | 295 CENTRAL PARK WEST/MAN | 295 CENTRAL PARK WEST | NEW YORK CITY |
| 0704133 | CENTRAL PARK 79TH ST MAIN | OFF EAST DRIVE | NEW YORK |
| 1108171 | INTERSECTION | WEST END AVE 87 STREET | NEW YORK |
| 9412863 | 255 WEST END AVENUE | 255 WEST END AVENUE | MANHATTAN |
| 9812671 | VAULT #4957 | W 90TH ST W OF COLUMBUS A | NEW YORK |
| 0906423 | APT BLDG | 80 CENTRAL PARK WEST | MANHATTAN |
| 1215526 | APARTMENT BLDG | 110 RIVERSIDE DR | MANHATTAN |
| 0500375 | 240 WEST END AVE | 240 WEST END AVE | MANHATTAN |
| 0200670 | 87TH STREET AND | WESTEND AVE | MANHATTAN |
| 1200956 | NYCT TRANSMISSION FLUID SPILL | WEST END AVE BET 71ST ST AND 72ND ST | NEW YORK |
| 1009288 | APARTMENT BUILDING | 216 WEST 89TH ST | MANHATTAN |
| 9712590 | 243 WEST END AVE | 243 WEST END AVE | MANHATTAN |
| 9603159 | 243 WEST END AVE | 243 WEST END AVE | MANHATTAN |
| 9600407 | 243 W. END AVE | 243 W. END AVE | MANHATTAN |
| 0814271 | 212383; W 68 ST AND BROADWAY | W 68 ST AND BROADWAY | NEW YORK |
| 0107104 | SPILL NUMBER 0107104 | 234 WEST END AVENUE | MANHATTAN |
| 0900413 | UNKNOWN | 55 WEST 90TH STREET | MANHATTAN |
| 9713753 | 255 WEST 88TH STREET | 255 WEST 88TH STREET | MANHATTAN |
| 9211392 | 27 W 90TH STREET | 27 W 90TH STREET | NEW YORK |
| 0307849 | SPILL NUMBER 0307849 | W 68TH ST & CENTRAL PK W | MANHATTAN |
| 0812066 | 300 CENTRAL PARK WEST/WEST 90 ST AND WEST 91 ST | 300 CENTRAL PARK WEST | MANHATTAN |
| 0807623 | EAST NY TRUCK SHOP | 1997 BROADWAY | NEW YORK |
| 9913314 | APT HOUSE | 328 WEST 86TH ST | MANHATTAN |
| 0412763 | COOPER SQUARE REALITY | 235 WEST END AVE | MANHATTAN |



NO OIL STORAGE FACILITIES LARGER THAN 400,000 GALLONS IDENTIFIED WITHIN 1/8 MILE SEARCH RADIUS



PETROLEUM BULK STORAGE FACILITIES LESS THAN 400,000 GALLONS IDENTIFIED WITHIN THE 1/8 MILE SEARCH RADIUS

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identification Number 303 **AMERICAN MUSEUM OF NATURAL HISTORY** **Facility Id: 2-611190** **Source: NYS DEC**
 AMERICAN MUSEUM OF NATURAL HISTORY NEW YORK, 10024 TT-Id: 640A-0086-712

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 111 feet to the ESE*

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: KALA HARINARAYANAN
 Owner Name: KALA HARINARAYANAN – SR. DIRECTOR OF EHS
 Owner Company: AMERICAN MUSEUM OF NATURAL HISTORY
 Owner Address: 200 CENTRAL PARK WEST, NEW YORK, NY 10024

Operator Phone #: (212) 769-5226
 Owner Type:

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------------|--------------|------------------|--|--------------|-----------|------------|
| 1 | In Service | Diesel | 6000 | Underground | 01/01/2005 | | |
| 2 | Closed – In Place | Diesel | 1080 | Underground | 01/01/1989 | | 05/28/2001 |
| 3 | In Service | Diesel | 1080 | Abovegrnd – In Contact w/Imperv. Barrier | 01/01/2004 | | |
| 4 | In Service | Diesel | 500 | Abovegrnd – In Contact w/Imperv. Barrier | 01/01/1997 | | |
| 5 | In Service | Diesel | 200 | Abovegrnd – In Contact w/Imperv. Barrier | 01/01/2005 | | |
| 6 | In Service | Diesel | 50 | Abovegrnd – In Contact w/Imperv. Barrier | 01/01/1988 | | |

TANK NUMBER: 1 TANK TYPE: Fiberglass Reinforced Plastic (FRP) TK INT. PROTECTION: None
 TANK EXT. PROTECTION: Fiberglass TANK LEAK DETECTN: Interstitial – Electronic Monitoring TK SEC. CONTAINMNT: Double-Walled (Underground)
 PIPING EXT. PROTECTN: Fiberglass PIPING LEAK DETECTN: Interstitial – Electronic Monitoring PIPE SEC. CONTAINMNT: Double-Walled (Underground)
 PIPING TYPE: Steel/Carbon Steel/Iron PIPING LOCATION: Aboveground/Underground Combination
 OVERFILL PROTECTION: High Level Alarm SPILL PREVENTION: Catch Basin DISPENSER METHOD: Suction
 Automatic Shut-Off

TANK NUMBER: 2 TANK TYPE: Steel/Carbon Steel/Iron TK INT. PROTECTION: Epoxy Liner
 TANK EXT. PROTECTION: None TANK LEAK DETECTN: Interstitial – Electronic Monitoring TK SEC. CONTAINMNT: Double-Walled (Underground)
 PIPING EXT. PROTECTN: None PIPING LEAK DETECTN: None PIPE SEC. CONTAINMNT: None
 PIPING TYPE: Galvanized Steel PIPING LOCATION: Aboveground/Underground Combination
 OVERFILL PROTECTION: High Level Alarm SPILL PREVENTION: Catch Basin DISPENSER METHOD: Suction

TANK NUMBER: 3 TANK TYPE: Steel/Carbon Steel/Iron TK INT. PROTECTION: None
 TANK EXT. PROTECTION: Painted/Asphalt Coating TANK LEAK DETECTN: Imperv. Barrier/Concrete Pad (A/G) TK SEC. CONTAINMNT: Vault (w/access)

**** TANK INFO FOR THIS SITE CONTINUES ON NEXT PAGE ****

| | | |
|--|---|--|
| PIPING EXT. PROTECTN: None PIPING TYPE: Galvanized Steel OVERFILL PROTECTION: High Level Alarm Automatic Shut-Off | PIPING LEAK DETECTN: Other PIPING LOCATION: Aboveground SPILL PREVENTION: Other | PIPE SEC. CONTAINMNT: Unmodified Double-Wall (Abovegrd) DISPENSER METHOD: Suction |
| TANK NUMBER: 4 TANK EXT. PROTECTION: Painted/Asphalt Coating PIPING EXT. PROTECTN: Painted/Asphalt Coating PIPING TYPE: Galvanized Steel OVERFILL PROTECTION: High Level Alarm Automatic Shut-Off | TANK TYPE: Steel/Carbon Steel/Iron TANK LEAK DETECTN: Imperv. Barrier/Concrete Pad (A/G) PIPING LEAK DETECTN: Other PIPING LOCATION: Aboveground SPILL PREVENTION: Other | TK INT. PROTECTION: None TK SEC. CONTAINMNT: Diking (Aboveground) PIPE SEC. CONTAINMNT: None DISPENSER METHOD: Suction |
| TANK NUMBER: 5 TANK EXT. PROTECTION: Painted/Asphalt Coating PIPING EXT. PROTECTN: None PIPING TYPE: Galvanized Steel OVERFILL PROTECTION: High Level Alarm Automatic Shut-Off | TANK TYPE: Steel/Carbon Steel/Iron TANK LEAK DETECTN: In-Tank System (ATG) PIPING LEAK DETECTN: Other PIPING LOCATION: Aboveground SPILL PREVENTION: Other | TK INT. PROTECTION: None TK SEC. CONTAINMNT: Diking (Aboveground) PIPE SEC. CONTAINMNT: None DISPENSER METHOD: Suction |
| TANK NUMBER: 6 TANK EXT. PROTECTION: Painted/Asphalt Coating PIPING EXT. PROTECTN: None PIPING TYPE: Galvanized Steel OVERFILL PROTECTION: High Level Alarm Automatic Shut-Off | TANK TYPE: Steel/Carbon Steel/Iron TANK LEAK DETECTN: Imperv. Barrier/Concrete Pad (A/G) Other PIPING LEAK DETECTN: Other PIPING LOCATION: Aboveground SPILL PREVENTION: Other | TK INT. PROTECTION: None TK SEC. CONTAINMNT: Diking (Aboveground) Impervious Underlayment PIPE SEC. CONTAINMNT: None DISPENSER METHOD: Suction |

Map Identification Number 304 **AMERICAN MUSEUM OF NATUR**
 179 CENTRAL PARK W

Facility Id: NY01442 **Source: NYC FIRE DEPT**
 NEW YORK, NY 10024 TT-Id: 660A-0005-119

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (2)
 Approximate distance from property: 111 feet to the ESE*

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: SECTION 15 ROOM 22, 1ST FLOOR.

Map Identification Number 305 **THE ORLEANS**
 100 WEST 80TH STREET

NEW YORK, 10024

Facility Id: 2-453811

Source: NYS DEC
 TT-Id: 640A-0031-601

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 129 feet to the NNW*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: N. STOJKOVIC (SUPERINTENDT)
 Owner Name: DAVID STERLING – MEMBER
 Owner Company: ORLEANS REALTY LLC
 Owner Address: 100 WEST 80TH STREET, NEW YORK, NY 10024

Operator Phone #: (212) 362-5500
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #2 Fuel Oil | 4800 | Aboveground on Crib Rack or Cradle | 10/10/1979 | | |

The following tank 001 content has been deleted or replaced: #4 Fuel Oil

| | | |
|---|---|---|
| TANK NUMBER: 001 | TANK TYPE: Steel/Carbon Steel/Iron | TK INT. PROTECTION: None |
| TANK EXT. PROTECTION: Painted/Asphalt Coating | TANK LEAK DETECTN: Imperv. Barrier/Concrete Pad (A/G) | TK SEC. CONTAINMNT: Vault (w/access) |
| PIPING EXT. PROTECTN: Painted/Asphalt Coating | PIPING LEAK DETECTN: Interstitial – Manual Monitoring | PIPE SEC. CONTAINMNT: Vault (w/access) |
| PIPING TYPE: Steel/Carbon Steel/Iron | PIPING LOCATION: Aboveground | |
| OVERFILL PROTECTION: Vent Whistle | SPILL PREVENTION: Catch Basin | DISPENSER METHOD: On Site Heating System (Supply/Ret) |

Map Identification Number 306 **PARC 77**
 50-52 WEST 77TH STREET

NEW YORK, 10024

Facility Id: 2-605641

Source: NYS DEC
 TT-Id: 640A-0029-851

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 129 feet to the SSW*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: MZAM AHMAD
 Owner Name: DENISE BEIHOFFER – VICE PRESIDENT
 Owner Company: ERP OPERATETING LIMITED PARTNERSHIP
 Owner Address: 2N RIVERSIDE PLAZA, SUITE 400, CHICAGO, IL 60606

Operator Phone #: (212) 873-1000
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 1 | In Service | #6 Fuel Oil | 10000 | Aboveground on Crib Rack or Cradle | 01/01/1955 | | |

| | | |
|---|--|--|
| TANK NUMBER: 1 | TANK TYPE: Steel/Carbon Steel/Iron | TK INT. PROTECTION: None |
| TANK EXT. PROTECTION: Painted/Asphalt Coating | TANK LEAK DETECTN: None | TK SEC. CONTAINMNT: Vault (w/o access) |
| PIPING EXT. PROTECTN: Painted/Asphalt Coating | PIPING LEAK DETECTN: Exempt Suction Piping | PIPE SEC. CONTAINMNT: Vault (w/access) |

**** TANK INFO FOR THIS SITE CONTINUES ON NEXT PAGE ****

PIPING TYPE: Steel/Carbon Steel/Iron
 OVERFILL PROTECTION: Product Level Gauge (A/G)
 Vent Whistle
 PIPING LOCATION: Aboveground
 SPILL PREVENTION: None
 DISPENSER METHOD: Suction

Map Identification Number 307 **64-66 W 77 ST** **Facility Id: 2-148075** **Source: NYS DEC**
 66 WEST 77TH STREET NEW YORK, 10024 TT-Id: 640A-0032-247

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 140 feet to the SW*

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: VIDAL RAMOS Operator Phone #: (917) 670-4782
 Owner Name: ARIEL GRUNBERG - MEMBER Owner Type: Corporate or Commercial
 Owner Company: FANNY GRUNBERG & ASSOCIATES, LLC.
 Owner Address: 928 BROADWAY SUITE 1105, NEW YORK, NY 10010

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #2 Fuel Oil | 4000 | Aboveground on Crib Rack or Cradle | 01/01/1997 | | |

TANK NUMBER: 001 TANK TYPE: Steel/Carbon Steel/Iron TK INT. PROTECTION: None
 TANK EXT. PROTECTION: None TANK LEAK DETECTN: None TK SEC. CONTAINMNT: Vault (w/o access)
 PIPING EXT. PROTECTN: None PIPING LEAK DETECTN: Exempt Suction Piping PIPE SEC. CONTAINMNT: None
 PIPING TYPE: Steel/Carbon Steel/Iron PIPING LOCATION: No Piping
 OVERFILL PROTECTION: Product Level Gauge (A/G) SPILL PREVENTION: None DISPENSER METHOD: Suction

Map Identification Number 308 **101 WEST 80TH OWNERS CORP** **Facility Id: 2-606646** **Source: NYS DEC**
 101 WEST 80TH STREET NEW YORK, 10024 TT-Id: 640A-0032-083

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 146 feet to the NNW*

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: ELISEO PEREZ Operator Phone #: (646) 957-7630
 Owner Name: - Owner Type: Corporate or Commercial
 Owner Company: 101 W. 80TH OWNERS CORP. C/O MIDBORO MGMT
 Owner Address: 148 W 37TH ST, 8TH FL, NEW YORK, NY 10018

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #4 Fuel Oil | 3000 | Aboveground on Crib Rack or Cradle | 08/26/1980 | | |

The following tank 001 content has been deleted or replaced: #2 Fuel Oil

| | | |
|---|--|--|
| TANK NUMBER: 001 | TANK TYPE: Steel/Carbon Steel/Iron | TK INT. PROTECTION: None |
| TANK EXT. PROTECTION: Painted/Asphalt Coating | TANK LEAK DETECTN: None | TK SEC. CONTAINMNT: Other |
| PIPING EXT. PROTECTN: Wrapped | PIPING LEAK DETECTN: Exempt Suction Piping | PIPE SEC. CONTAINMNT: Vault (w/access) |
| PIPING TYPE: Steel/Carbon Steel/Iron | PIPING LOCATION: Aboveground | |
| OVERFILL PROTECTION: None | SPILL PREVENTION: Catch Basin | DISPENSER METHOD: Suction |

Map Identification Number 309 **101 W 80 OWNERS CORP** **Facility Id: NY00039** **Source: NYC FIRE DEPT**
 101 W 80 ST NEW YORK, NY 10024 TT-Id: 660A-0005-795

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 146 feet to the NNW*

ADDRESS CHANGE INFORMATION
 Revised street: 101 W 80TH ST
 Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: FUEL OIL #4-3,000 GAL.TANK

Map Identification Number 310 **JOBEN REALTY ASSOC** **Facility Id: 2-271284** **Source: NYS DEC**
 101 W. 78TH ST NEW YORK, 10024 TT-Id: 640A-0031-026

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 149 feet to the WSW*

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | |
|--|----------------------------------|
| Operator Name: MIREK POLAK | Operator Phone #: (212) 877-8264 |
| Owner Name: LAWRENCE H. PERLE - MANAGING AGENT | |
| Owner Company: JOBEN REALTY ASSOC | Owner Type: Private Resident |
| Owner Address: 250 W. 57TH ST SUITE 1018, NEW YORK, NY 10107 | |

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #4 Fuel Oil | 5000 | Aboveground - In Contact with Soil | 12/01/1958 | | |

| | | |
|------------------|------------------------------------|--------------------------|
| TANK NUMBER: 001 | TANK TYPE: Steel/Carbon Steel/Iron | TK INT. PROTECTION: None |
|------------------|------------------------------------|--------------------------|

**** TANK INFO FOR THIS SITE CONTINUES ON NEXT PAGE ****

TANK EXT. PROTECTION: None
 PIPING EXT. PROTECTN: None
 PIPING TYPE: Steel/Carbon Steel/Iron
 OVERFILL PROTECTION: Product Level Gauge (A/G)

TANK LEAK DETECTN: None
 PIPING LEAK DETECTN: Exempt Suction Piping
 PIPING LOCATION: No Piping
 SPILL PREVENTION: None

TK SEC. CONTAINMNT: Vault (w/o access)
 PIPE SEC. CONTAINMNT: None
 DISPENSER METHOD: Suction

Map Identification Number 311 **102 WEST ASSOCIATES** **Facility Id: 2-210870** **Source: NYS DEC**
 102 WEST 79 STREET NEW YORK, 10024 TT-Id: 640A-0032-304

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 151 feet to the W*

ADDRESS CHANGE INFORMATION
 Revised street: 102 W 79TH ST
 Revised zip code: NO CHANGE

Operator Name: AGUSTO PAULINO Operator Phone #: (212) 595-0602
 Owner Name: -
 Owner Company: J H TAYLOR MANAGEMENT CO Owner Type: Corporate or Commercial
 Owner Address: 180 CABRINI BOULEVARD, NEW YORK, NY 10033

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------------|--------------|------------------|---------------------------------|--------------|------------|------------|
| 001 | Closed - In Place | #2 Fuel Oil | 2000 | Underground Vaulted with Access | | 07/01/1999 | 12/01/1999 |

TANK NUMBER: 001
 TANK EXT. PROTECTION: None
 PIPING EXT. PROTECTN: None
 PIPING TYPE: Galvanized Steel
 OVERFILL PROTECTION: Product Level Gauge (A/G)

TANK TYPE: Steel/Carbon Steel/Iron
 TANK LEAK DETECTN: None
 PIPING LEAK DETECTN: None
 PIPING LOCATION: No Piping
 SPILL PREVENTION:

TK INT. PROTECTION: None
 TK SEC. CONTAINMNT: None
 PIPE SEC. CONTAINMNT:
 DISPENSER METHOD: Suction

Map Identification Number 312 **370 COLUMBUS REALTY LLC** **Facility Id: 2-098094** **Source: NYS DEC**
 370 COLUMBUS AVE NEW YORK, 10024 TT-Id: 640A-0030-404

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 152 feet to the WSW*

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: WALLY ACEVEDO Operator Phone #: (212) 279-9600
 Owner Name: ERIC NELSON - MEMBER MANAGER
 Owner Company: 370 COLUMBUS REALTY LLC @ VINTAGE GROUP LLC Owner Type: Corporate or Commercial
 Owner Address: 15 W. 39TH ST., 8TH FLOOR, NEW YORK, NY 10018

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #6 Fuel Oil | 3000 | Aboveground – In Contact with Soil | 05/01/1945 | | |

TANK NUMBER: 001
 TANK EXT. PROTECTION: None
 PIPING EXT. PROTECTN: None
 PIPING TYPE: Steel/Carbon Steel/Iron
 OVERFILL PROTECTION: Product Level Gauge (A/G)

TANK TYPE: Steel/Carbon Steel/Iron
 TANK LEAK DETECTN: None
 PIPING LEAK DETECTN: Exempt Suction Piping
 PIPING LOCATION: No Piping
 SPILL PREVENTION: None

TK INT. PROTECTION: None
 TK SEC. CONTAINMNT: None
 PIPE SEC. CONTAINMNT: None
 DISPENSER METHOD: Suction

Map Identification Number 313 **THE PARK BELVEDERE CONDOMINIUM** **Facility Id: 2-272779** **Source: NYS DEC**
 101 WEST 79TH STREET NEW YORK, 10024 TT-Id: 640A-0029-654

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 157 feet to the NW*

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: HENRY PIKULAK Operator Phone #: (212) 877-1490
 Owner Name: PETER T. MURRAY – MANAGING AGENT
 Owner Company: THE PARK BELVEDERE CONDOMINIUM Owner Type: Private Resident
 Owner Address: 101 WEST 79TH ST, NEW YORK, NY 10024

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------------------------|--------------|------------|------------|
| 001 | In Service | #6 Fuel Oil | 20000 | Underground Vaulted with Access | 12/01/1983 | 04/01/1992 | |

TANK NUMBER: 001
 TANK EXT. PROTECTION: Painted/Asphalt Coating
 PIPING EXT. PROTECTN: Painted/Asphalt Coating
 PIPING TYPE: Steel/Carbon Steel/Iron
 OVERFILL PROTECTION: High Level Alarm

TANK TYPE: Steel/Carbon Steel/Iron
 TANK LEAK DETECTN: None
 PIPING LEAK DETECTN: Exempt Suction Piping
 PIPING LOCATION: Aboveground
 SPILL PREVENTION: None

TK INT. PROTECTION: None
 TK SEC. CONTAINMNT: Vault (w/o access)
 PIPE SEC. CONTAINMNT: None
 DISPENSER METHOD: Suction

Map Identification Number 314 **THE EXCELSIOR HOTEL** **Facility Id: 2-607150** **Source: NYS DEC**
 45 WEST 81 STREET NEW YORK, 10024 TT-Id: 640A-0032-704

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 162 feet to the NE*

ADDRESS CHANGE INFORMATION
 Revised street: 45 WEST 81ST STREET
 Revised zip code: NO CHANGE

Operator Name: IVAN WEINER
 Owner Name: IVAN WEINER – G.M.
 Owner Company: HARRY KRAKOWSKI
 Owner Address: 45 WEST 81 STREET, NEW YORK, NY 10024

Operator Phone #: (212) 362-9200
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------------------------|--------------|-----------|------------|
| 001 | In Service | #6 Fuel Oil | 6000 | Underground Vaulted with Access | 06/15/1982 | | |

TANK NUMBER: 001
 TANK EXT. PROTECTION: None
 PIPING EXT. PROTECTN: None
 PIPING TYPE: No Piping
 OVERFILL PROTECTION: None

TANK TYPE: Steel/Carbon Steel/Iron
 TANK LEAK DETECTN: None
 PIPING LEAK DETECTN: None
 PIPING LOCATION: No Piping
 SPILL PREVENTION:

TK INT. PROTECTION: None
 TK SEC. CONTAINMNT: None
 PIPE SEC. CONTAINMNT:
 DISPENSER METHOD:

Map Identification Number 315 **51 WEST 81ST CORP.**
 51 WEST 81ST ST

Facility Id: 2-243531 **Source: NYS DEC**
 NEW YORK, 10024 TT-Id: 640A-0030-871

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 165 feet to the NNE*

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: PATRICK CLARKE
 Owner Name: FAITH BRENNER – PROPERTY MANAGER
 Owner Company: 51 WEST 81ST CORP
 Owner Address: 51 WEST 81ST STREET, NEW YORK, NY 10024

Operator Phone #: (212) 595-0446
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #2 Fuel Oil | 5000 | Aboveground – In Contact with Soil | 01/01/1905 | | |

TANK NUMBER: 001
 TANK EXT. PROTECTION: None
 PIPING EXT. PROTECTN: None
 PIPING TYPE: Steel/Carbon Steel/Iron
 OVERFILL PROTECTION: Product Level Gauge (A/G)

TANK TYPE: Steel/Carbon Steel/Iron
 TANK LEAK DETECTN: None
 PIPING LEAK DETECTN: Exempt Suction Piping
 PIPING LOCATION: No Piping
 SPILL PREVENTION:

TK INT. PROTECTION: None
 TK SEC. CONTAINMNT: Vault (w/o access)
 PIPE SEC. CONTAINMNT:
 DISPENSER METHOD: Suction

Map Identification Number 316 **PARK 44 CORP**
 44 WEST 77TH STREET

NEW YORK, 10024

Facility Id: 2-245224

Source: NYS DEC
 TT-Id: 640A-0032-350

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 169 feet to the SSW*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: ANTHONY KIERNAN
 Owner Name: -
 Owner Company: PARK 44 CORP C/O SOLSTICE RESIDENTIAL
 Owner Address: 257 PARK AVE SOUTH, NEW YORK, NY 10010

Operator Phone #: (212) 787-3699
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------------------------|--------------|-----------|------------|
| 001 | In Service | #6 Fuel Oil | 7500 | Underground Vaulted with Access | 07/11/1973 | | |

TANK NUMBER: 001
 TANK EXT. PROTECTION: Painted/Asphalt Coating
 PIPING EXT. PROTECTN: Wrapped
 PIPING TYPE: Steel/Carbon Steel/Iron
 OVERFILL PROTECTION: Product Level Gauge (A/G)

TANK TYPE: Steel/Carbon Steel/Iron
 TANK LEAK DETECTN: None
 PIPING LEAK DETECTN: Exempt Suction Piping
 PIPING LOCATION: Aboveground
 SPILL PREVENTION: None

TK INT. PROTECTION: None
 TK SEC. CONTAINMNT: Vault (w/o access)
 PIPE SEC. CONTAINMNT: None
 DISPENSER METHOD: Suction

Map Identification Number 317 **THE MUSEUM 77 CONDOMINIUM**
 105 WEST 77TH STREET

NEW YORK, 10024

Facility Id: 2-610232

Source: NYS DEC
 TT-Id: 640A-0029-747

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 184 feet to the SW*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: TONY GJAKMANI
 Owner Name: -
 Owner Company: THE MUSEUM 77 CONDOMINIUM @ VERITAS MGT LLC
 Owner Address: 1995 BROADWA, STE 1201, NEW YORK, NY 10023

Operator Phone #: (646) 549-8943
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #2 Fuel Oil | 1500 | Aboveground - In Contact with Soil | 01/01/1988 | | |

TANK NUMBER: 001
 TANK EXT. PROTECTION: Jacketed
 PIPING EXT. PROTECTN: None
 PIPING TYPE: Steel/Carbon Steel/Iron

TANK TYPE: Steel/Carbon Steel/Iron
 TANK LEAK DETECTN: None
 PIPING LEAK DETECTN: None
 PIPING LOCATION: Aboveground

TK INT. PROTECTION: None
 TK SEC. CONTAINMNT: None
 PIPE SEC. CONTAINMNT: None

**** TANK INFO FOR THIS SITE CONTINUES ON NEXT PAGE ****

OVERFILL PROTECTION: Vent Whistle

SPILL PREVENTION: None

DISPENSER METHOD:

Map Identification Number 318 **81ST DWELLERS**
 35 WEST 81ST ST

NEW YORK, 10024 **Facility Id: 2-063673** **Source: NYS DEC**
 TT-Id: 640A-0030-288

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 185 feet to the NE*

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: STEPHEN MURPHY
 Owner Name: MITCHELL BERG – ASSISTANT SECRETARY
 Owner Company: 81ST DWELLERS INC.
 Owner Address: 35 WEST 81ST STREET, NEW YORK, NY 10024

Operator Phone #: (212) 595-2160
 Owner Type: Private Resident

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | Closed – Removed | #6 Fuel Oil | 7500 | Aboveground on Crib Rack or Cradle | | | 04/02/2014 |

TANK NUMBER: 001
 TANK EXT. PROTECTION: None
 PIPING EXT. PROTECTN: None
 PIPING TYPE: Galvanized Steel
 OVERFILL PROTECTION: Vent Whistle

TANK TYPE: Steel/Carbon Steel/Iron
 TANK LEAK DETECTN: None
 PIPING LEAK DETECTN: Exempt Suction Piping
 PIPING LOCATION: Aboveground
 SPILL PREVENTION:

TK INT. PROTECTION: None
 TK SEC. CONTAINMNT: None
 PIPE SEC. CONTAINMNT:
 DISPENSER METHOD: Gravity

Map Identification Number 319 **102 WEST 80TH ST**
 102 WEST 80TH ST

NEW YORK, 10024 **Facility Id: 2-338796** **Source: NYS DEC**
 TT-Id: 640A-0031-377

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 192 feet to the NW*

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: HAMDO
 Owner Name: RAMIN SHALOM – MANAGER
 Owner Company: MUSEUM PLAZA ASSOC
 Owner Address: 347 FIFTH AVE., #1600, NEW YORK, NY 10016

Operator Phone #: (212) 721-9488
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #4 Fuel Oil | 4000 | Aboveground on Crib Rack or Cradle | 01/01/1960 | | |

TANK NUMBER: 001
 TANK TYPE: Steel/Carbon Steel/Iron
 TK INT. PROTECTION: None

**** TANK INFO FOR THIS SITE CONTINUES ON NEXT PAGE ****

| | | |
|---|------------------------------|--|
| TANK EXT. PROTECTION: Painted/Asphalt Coating | TANK LEAK DETECTN: None | TK SEC. CONTAINMNT: Diking (Aboveground) |
| PIPING EXT. PROTECTN: None | PIPING LEAK DETECTN: None | PIPE SEC. CONTAINMNT: None |
| PIPING TYPE: Copper | PIPING LOCATION: Aboveground | DISPENSER METHOD: Gravity |
| OVERFILL PROTECTION: Vent Whistle | SPILL PREVENTION: None | |

Map Identification Number 320 **WEST 80 ST ASSOCIATES** **Facility Id: NY10312** **Source: NYC FIRE DEPT**
 103 W 80 ST NEW YORK, NY 10025 TT-Id: 660A-0007-854

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 212 feet to the NNW

ADDRESS CHANGE INFORMATION
 Revised street: 103 W 80TH ST
 Revised zip code: 10024

NOTE: This is an archived database

Comments: FUEL OIL 1500 GLS

Map Identification Number 321 **D L R H ASSOC** **Facility Id: 2-108332** **Source: NYS DEC**
 117 WEST 79TH ST NEW YORK, 10024 TT-Id: 640A-0030-438

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 246 feet to the NW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

| | |
|---|-------------------------------------|
| Operator Name: DAVID BEIT-MANAGER | Operator Phone #: (212) 787-4900 |
| Owner Name: BLAKE AUGUSTUS - | Owner Type: Corporate or Commercial |
| Owner Company: D L R H ASSOCIATES LLC | |
| Owner Address: 117 WEST 79TH ST, NEW YORK, NY 10024 | |

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #6 Fuel Oil | 3000 | Aboveground - In Contact with Soil | 10/01/1985 | | |

| | | |
|--|--|--|
| TANK NUMBER: 001 | TANK TYPE: Steel/Carbon Steel/Iron | TK INT. PROTECTION: None |
| TANK EXT. PROTECTION: None | TANK LEAK DETECTN: None | TK SEC. CONTAINMNT: Vault (w/o access) |
| PIPING EXT. PROTECTN: None | PIPING LEAK DETECTN: Exempt Suction Piping | PIPE SEC. CONTAINMNT: None |
| PIPING TYPE: Steel/Carbon Steel/Iron | PIPING LOCATION: No Piping | DISPENSER METHOD: Suction |
| OVERFILL PROTECTION: Product Level Gauge (A/G) | SPILL PREVENTION: None | |

Map Identification Number 322 **341 COLUMBUS REALTY CO. LLC**
 59 WEST 76TH STREET

NEW YORK, 10023 **Facility Id: 2-316377**

Source: NYS DEC
 TT-Id: 640A-0029-906

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 247 feet to the SSW

ADDRESS CHANGE INFORMATION
 Revised street: 59 WEST 76TH ST
 Revised zip code: NO CHANGE

Operator Name: OSCAR GARAY
 Owner Name: -
 Owner Company: 341 COLUMBUS REALTY CO. LLC
 Owner Address: 616 PALISADE AVE, ENGLEWOOD CLIFFS, NJ 07632

Operator Phone #: (646) 234-5776
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | Closed - Removed | #2 Fuel Oil | 3000 | Aboveground - In Contact with Soil | 12/01/1976 | | 10/03/2013 |

TANK NUMBER: 001
 TANK EXT. PROTECTION: Painted/Asphalt Coating
 PIPING EXT. PROTECTN: Painted/Asphalt Coating
 PIPING TYPE: Steel/Carbon Steel/Iron
 OVERFILL PROTECTION: Product Level Gauge (A/G)

TANK TYPE: Steel/Carbon Steel/Iron
 TANK LEAK DETECTN: None
 PIPING LEAK DETECTN: Exempt Suction Piping
 PIPING LOCATION: Aboveground/Underground Combination
 SPILL PREVENTION: None

TK INT. PROTECTION: None
 TK SEC. CONTAINMNT: Other
 PIPE SEC. CONTAINMNT: None
 DISPENSER METHOD: Suction

Map Identification Number 323 **118 TENANTS CORP**
 118 WEST 79TH STREET

NEW YORK, 10024 **Facility Id: 2-236756**

Source: NYS DEC
 TT-Id: 640A-0032-334

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 247 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: MIGUEL SOTO
 Owner Name: ANTHONY COLELLA - MANAGING DIR.
 Owner Company: 118 TENANTS CORP
 Owner Address: 118 WEST 79 ST, NEW YORK, NY 10024

Operator Phone #: (212) 873-4597
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------|--------------|-----------|------------|
| 001 | In Service | #6 Fuel Oil | 5000 | Underground | 04/01/1952 | | |

TANK NUMBER: 001
 TANK EXT. PROTECTION: None
 PIPING EXT. PROTECTN: None
 PIPING TYPE: Steel/Carbon Steel/Iron

TANK TYPE: Steel/Carbon Steel/Iron
 TANK LEAK DETECTN: None
 PIPING LEAK DETECTN: None
 PIPING LOCATION: No Piping

TK INT. PROTECTION: None
 TK SEC. CONTAINMNT: None
 PIPE SEC. CONTAINMNT: None

**** TANK INFO FOR THIS SITE CONTINUES ON NEXT PAGE ****

OVERFILL PROTECTION: Product Level Gauge (A/G)

SPILL PREVENTION: None

DISPENSER METHOD:

Map Identification Number 324 **25 WEST 81ST STREET LLC**
 25 WEST 81ST STREET

NEW YORK, 10154

Facility Id: 2-360066

Source: NYS DEC
 TT-Id: 640A-0031-451

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 258 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: 25 W 81ST ST
 Revised zip code: 10024

Operator Name: LUKE
 Owner Name: -
 Owner Company: 25 WEST 81ST ST LLC @ RUDIN MGMT CO
 Owner Address: 345 PARK AVE, NEW YORK, NY 10154

Operator Phone #: (212) 874-1356
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #4 Fuel Oil | 5000 | Aboveground on Crib Rack or Cradle | 12/10/1958 | | |

The following tank 001 content has been deleted or replaced: #6 Fuel Oil

Map Identification Number 325 **WALBER 82ND STREET ASSOCIATES**
 80 WEST 82ND ST

NEW YORK, 10024

Facility Id: 2-611976

Source: NYS DEC
 TT-Id: 640A-0089-573

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 259 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: RALPH DAVIS
 Owner Name: RALPH DAVIS - MANAGING AGENT
 Owner Company: WALBER 82ND STREET ASSOCIATES
 Owner Address: 80 WEST 82ND ST, NEW YORK, NY 10024

Operator Phone #: (212) 307-0500
 Owner Type:

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|--|--------------|-----------|------------|
| 001 | In Service | #2 Fuel Oil | 1200 | Aboveground - 10% or More Below Ground | 06/01/1948 | | |

Map Identification Number 326 **4077 OWNERS CORP**
 40 WEST 77 ST

NEW YORK, 10024 **Facility Id: 2-112283**

Source: NYS DEC
 TT-Id: 640A-0032-219

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 262 feet to the S

ADDRESS CHANGE INFORMATION
 Revised street: 40 WEST 77TH ST
 Revised zip code: NO CHANGE

Operator Name: DECIAN BEACKEN
 Owner Name: HARRY SMOTH – AGENT
 Owner Company: 4077 OWNERS CORP
 Owner Address: 40 WEST 77TH ST, NEW YORK, NY 10024

Operator Phone #: (212) 874-7922
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------------------------|--------------|-----------|------------|
| 001 | In Service | #6 Fuel Oil | 5000 | Underground Vaulted with Access | 01/01/1989 | | |

Map Identification Number 327 **ENDICOTT COMMERCIAL UNIT**
 440 COLUMBUS AVENUE

NEW YORK, 10024 **Facility Id: 2-211583**

Source: NYS DEC
 TT-Id: 640A-0039-410

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 288 feet to the N

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: WALKER MALLOY & CO
 Owner Name: JAMES REID – MANAGING AGENT
 Owner Company: ROBERT C. QUINLAN ET AL
 Owner Address: 101 WEST 70TH STREET, SUITE 2N, NEW YORK, NY 10023

Operator Phone #: (212) 362-5108
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #2 Fuel Oil | 1250 | Aboveground on Crib Rack or Cradle | 12/01/1981 | | |
| 002 | In Service | #2 Fuel Oil | 1250 | Aboveground on Crib Rack or Cradle | 12/01/1981 | | |

Map Identification Number 328 **ENDICOTT APARTMENT CORP.**
 101 WEST 81ST STREET

NEW YORK, 10024 **Facility Id: 2-249092**

Source: NYS DEC
 TT-Id: 640A-0039-411

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 288 feet to the N

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: VINCENT CONIGULIARO
 Owner Name: ALAN WARSHANSKY – MANAGING AGENT
 Owner Company: ENDICOTT APARTMENT CORP @ HALSTEAD MGMT CO LLC
 Owner Address: 415 MADISON AVE., NEW YORK, NY 10021

Operator Phone #: (212) 362-5108
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | Closed – Removed | #2 Fuel Oil | 5000 | Aboveground – In Contact with Soil | | | 10/21/2006 |
| 002 | In Service | #4 Fuel Oil | 5000 | Aboveground on Crib Rack or Cradle | 09/01/2006 | | |

Map Identification Number 329 **INTERMEDIATE SCHOOL 44 – MANHATTAN M044** **Facility Id: 2-353876** **Source: NYS DEC**
 100 WEST 77TH STREET NEW YORK, 10024 TT-Id: 640A-0031-430

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 304 feet to the SW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: PLANT OPERATIONS
 Owner Name: –
 Owner Company: NEW YORK CITY DEPARTMENT OF EDUCATION
 Owner Address: 44-36 VERNON BOULEVARD, LONG ISLAND CITY, NY 11101

Operator Phone #: (718) 349-5400
 Owner Type: Local Government

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #2 Fuel Oil | 10000 | Aboveground on Crib Rack or Cradle | 01/01/1957 | | |
| 002 | In Service | #2 Fuel Oil | 10000 | Aboveground on Crib Rack or Cradle | 01/01/1957 | | |

Map Identification Number 330 **3282 OWNERS CORP.** **Facility Id: 2-266590** **Source: NYS DEC**
 32 WEST 82ND STREET NEW YORK, 10024 TT-Id: 640A-0032-386

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 342 feet to the NE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: MARINO BRITO
 Owner Name: VIRGINIA CONTI – ACCOUNT EXECUTIVE
 Owner Company: 3282 OWNERS CORP
 Owner Address: 32 W. 82ND ST., NEW YORK, NY 10024

Operator Phone #: (212) 724-6068
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #6 Fuel Oil | 5000 | Aboveground – In Contact with Soil | 06/01/1949 | | |

Map Identification Number 331  **ENNISMORE APARTMENTS INC** **Facility Id: 2-272930** **Source: NYS DEC**
 124 WEST 79TH STREET NEW YORK, 10024 TT-Id: 640A-0031-041

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 347 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: ENNISMORE APARTMENTS INC Operator Phone #: (212) 873-4919
 Owner Name: ARI PAUL – MANAGING AGENT Owner Type: Corporate or Commercial
 Owner Company: ENNISMORE APARTMENTS INC
 Owner Address: 155 RIVERSIDE DRIVE, NEW YORK NY, NY 10024

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #6 Fuel Oil | 7500 | Aboveground – In Contact with Soil | 01/01/1940 | | |

Map Identification Number 332  **22 WEST 77TH STREET** **Facility Id: 2-420999** **Source: NYS DEC**
 22 WEST 77TH STREET NEW YORK, 10024 TT-Id: 640A-0031-588

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 357 feet to the S

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: GERARDO SOLIS Operator Phone #: (347) 387-2501
 Owner Name: FRANCISCO ORELLANA – MGR Owner Type: Corporate or Commercial
 Owner Company: 77TH STREET REALTY ASSOC. LP
 Owner Address: 43 WEST 75TH STREET STE C, NEW YORK, NY 10023

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|--|--------------|-----------|------------|
| 001 | In Service | #2 Fuel Oil | 4000 | Aboveground – 10% or More Below Ground | 08/18/1983 | | |

Map Identification Number 333 **ALEIDA REALTY CRP**
 73 W 82 ST

Facility Id: NY01319
 NEW YORK, NY 10024

Source: NYC FIRE DEPT
 TT-Id: 660A-0006-052

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 381 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: 73 W 82ND ST
 Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: FUEL OIL 1500G -#2

Map Identification Number 334 **15 W 81ST ST TENANTS CORP**
 15 W 81ST ST

Facility Id: 2-233471
 NEW YORK, 10024

Source: NYS DEC
 TT-Id: 640A-0030-815

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 394 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: LOUIS MARTIN
 Owner Name: PATRICIA PETTAWAY-BROWN - COMPLIANCE MGR
 Owner Company: 15 W 81ST ST TENANTS CORP
 Owner Address: 15 W 81ST ST, NEW YORK, NY 10024

Operator Phone #: (212) 787-3007
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|--|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #2 Fuel Oil | 10000 | Aboveground - In Contact with Soil | 01/02/1981 | | |
| The following tank 001 content has been deleted or replaced: #6 Fuel Oil | | | | | | | |

Map Identification Number 335 **60 WEST 76TH STREET**
 60 WEST 76TH STREET

Facility Id: 2-315842
 NEW YORK, 10023

Source: NYS DEC
 TT-Id: 640A-0031-251

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 394 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: EDDIE LAMAJ
 Owner Name: JOSEPH LOPEZ - MANAGING AGENT
 Owner Company: 60 WEST 76TH STREET LLC
 Owner Address: 600 MADISON AVE, 14TH FLOOR, NEW YORK, NY 10022

Operator Phone #: (212) 501-9373
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #6 Fuel Oil | 4500 | Aboveground – In Contact with Soil | 04/30/1968 | | |

Map Identification Number 336  **CLIFTON HOUSE OWNERS CORP.**
127 WEST 79TH STREET

Facility Id: 2-244600
NEW YORK, 10024

Source: NYS DEC
TT-Id: 640A-0030-878

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 400 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Operator Name: SAMMY PEREZ
Owner Name: MICHAELE MCCARTHY – ACCT EXECUTIVE
Owner Company: CLIFTON HOUSE OWNERS CORP.
Owner Address: 127 WEST 79TH ST, NEW YORK, NY 10024

Operator Phone #: (212) 362-7500
Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------------|--------------|------------------|------------------------------------|--------------|------------|------------|
| 001 | Closed – In Place | #6 Fuel Oil | 7000 | Underground | 10/01/1926 | 11/11/2009 | 02/01/2013 |
| 002 | In Service | #2 Fuel Oil | 3500 | Aboveground on Crib Rack or Cradle | 02/22/2013 | | |

Map Identification Number 337  **20 W 77 ST**
20 WEST 77TH STREET

Facility Id: 2-064726
NEW YORK, 10024

Source: NYS DEC
TT-Id: 640A-0030-295

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 409 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Operator Name: JOSEPH BUHAGIAR
Owner Name: ANTHONY COLELLA – MANAGING DIRECTOR
Owner Company: 20 WEST 77TH STREET CORP
Owner Address: 250 PARK AVE SOUTH, NEW YORK, NY 10003

Operator Phone #: (212) 496-0131
Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #4 Fuel Oil | 3000 | Aboveground – In Contact with Soil | 01/01/1952 | | |

The following tank 001 content has been deleted or replaced: #6 Fuel Oil

Map Identification Number 338 **20TH PCT**
 120 WEST 82ND STREET

NEW YORK, 10020

Facility Id: 2-217484

Source: NYS DEC
 TT-Id: 640A-0039-448

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 410 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: 120 W 82ND ST
 Revised zip code: 10024

Operator Name: N Y C P D
 Owner Name: BRENDAN MORAN – SERGEANT
 Owner Company: N Y C P D/ASD
 Owner Address: 1 POLICE PLAZA, ROOM 800, NEW YORK, NY 10038

Operator Phone #: (212) 580-6411
 Owner Type: Local Government

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------------|--------------|------------------|------------------------------------|--------------|------------|------------|
| 001 | Closed – Removed | Gasoline | 550 | Underground | 01/01/1969 | | 01/01/1996 |
| 002 | Closed – Removed | Gasoline | 550 | Underground | 01/01/1969 | | 01/01/1996 |
| 003 | Closed – Removed | Gasoline | 550 | Underground | 01/01/1969 | | 01/01/1996 |
| 004 | Closed – Removed | Gasoline | 550 | Underground | 01/01/1969 | | 01/01/1996 |
| 005 | Closed – In Place | #2 Fuel Oil | 8000 | Underground | 07/01/1967 | 03/01/2001 | 12/01/2002 |
| 006 | Closed – Removed | Diesel | 1000 | Underground | 12/01/1969 | | 12/01/2002 |
| 007 | In Service | Gasoline | 4000 | Underground | 01/01/1996 | | |
| 008 | In Service | #2 Fuel Oil | 7500 | Underground | 12/01/2002 | | |
| 009 | In Service | #2 Fuel Oil | 25 | Aboveground on Crib Rack or Cradle | 12/01/2002 | | |

Map Identification Number 339 **100 WEST 76TH STREET**
 100 WEST 76TH STREET

NEW YORK, 10023

Facility Id: 2-286192

Source: NYS DEC
 TT-Id: 640A-0031-142

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 423 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: JONATHAN HINCAPIE
 Owner Name: ANNE GOLDRACH – PRESIDENT
 Owner Company: GREYSTONE PROPERTIES 76 LLC
 Owner Address: 30 VESEY STREET, SUITE 1700, NEW YORK, NY 10007

Operator Phone #: (917) 698-3397
 Owner Type: Private Resident

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | Closed – Removed | #2 Fuel Oil | 4000 | Aboveground – In Contact with Soil | | | 07/01/1991 |
| 002 | In Service | #2 Fuel Oil | 2500 | Aboveground on Crib Rack or Cradle | 07/01/1991 | | |

Map Identification Number 340 **HAYDEN OWNERS CORP**
 11 WEST 81ST STREET

NEW YORK, 10024 **Facility Id: 2-147311**

Source: NYS DEC
 TT-Id: 640A-0030-529

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 429 feet to the ENE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: SHOUKAT MIAN
 Owner Name: MICHAEL J. WOLFE – ACCOUNT EXECUTIVE
 Owner Company: HAYDEN OWNERS CORP @ MIDBORO MGMT INC
 Owner Address: 148 W. 37TH ST., NEW YORK, NY 10018

Operator Phone #: (212) 873-5238
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------|--------------|------------|------------|
| 001 | In Service | #6 Fuel Oil | 4000 | Underground | 05/01/1998 | 04/16/2014 | |

Map Identification Number 341 **4182 TENANTS CORP**
 41 WEST 82ND STREET

NEW YORK, 10024 **Facility Id: 2-311502**

Source: NYS DEC
 TT-Id: 640A-0031-233

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 434 feet to the NE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: NEIL FERGUSON
 Owner Name: -
 Owner Company: 4182 TENANTS CORP @ MIDBORO MGMT
 Owner Address: 148 W 37TH ST., 8TH FLOOR, NEW YORK, NY 10024

Operator Phone #: (212) 721-2388
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|--|--------------|-----------|------------|
| 001 | In Service | #4 Fuel Oil | 5000 | Abovegrnd – In Contact w/Imperv. Barrier | 06/01/1946 | | |

Map Identification Number 342 **RESIDENTIAL APARTMENT BUILDING**
 35 WEST 82ND STREET

NEW YORK, 10024 **Facility Id: 2-043877**

Source: NYS DEC
 TT-Id: 640A-0030-235

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 441 feet to the NE

ADDRESS CHANGE INFORMATION
 Revised street: 35 WEST 82ND ST
 Revised zip code: NO CHANGE

Operator Name: WILLIAM QUINN
 Owner Name: JOHN MASINI – AGENT
 Owner Company: 35 WEST 82 ST INC @ THE ARGO CORP
 Owner Address: 50 WEST 17TH ST, NEW YORK, NY 10011

Operator Phone #: (212) 874–3489
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 052 | Closed – Removed | #6 Fuel Oil | 5000 | Aboveground – In Contact with Soil | 11/15/1978 | | 05/07/2014 |
| 053 | In Service | #2 Fuel Oil | 2600 | Aboveground on Crib Rack or Cradle | 12/23/2015 | | |

Map Identification Number 343 **125 W 76 ST**
 125 WEST 76TH STREET

Facility Id: 2–129992 **Source: NYS DEC**
 NEW YORK, 10023 TT-Id: 640A–0032–236

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 447 feet to the WSW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: TOM CREAM
 Owner Name: PHILLIP SANSONE – AGENT
 Owner Company: 125 W 76 RLTY CORP
 Owner Address: 125 W 76 ST, NEW YORK, NY 10023

Operator Phone #: (646) 329–5156
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #6 Fuel Oil | 3000 | Aboveground – In Contact with Soil | 03/07/1922 | | |

Map Identification Number 344 **79TH ST. RESIDENCE CORP.**
 135 WEST 79TH STREET

Facility Id: 2–332240 **Source: NYS DEC**
 NEW YORK, 10024 TT-Id: 640A–0031–344

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 480 feet to the WNW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: TONY ROSARIO
 Owner Name: MICHAEL SCHENKER – PROPERTY MANAGER
 Owner Company: 79TH ST RESIDENCE CORP @ ANDREWS BLDG CORP
 Owner Address: 666 BROADWAY, 12TH FL, NEW YORK, NY 10012

Operator Phone #: (212) 874–3284
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|--|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | Closed – Removed | #2 Fuel Oil | 3000 | Aboveground – In Contact with Soil | 09/19/1995 | | 08/06/2010 |
| The following tank 001 content has been deleted or replaced: #6 Fuel Oil | | | | | | | |

Map Identification Number 345  **57 WEST 75TH ST** **Facility Id: 2-297852** **Source: NYS DEC**
 57 WEST 75TH ST NEW YORK, 10023 TT-Id: 640A-0031-211

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 499 feet to the SSW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: MIKE MINIHAN
 Owner Name: NOEL INTNER – AUTHORIZED SIGNATORY
 Owner Company: LA ROCHELLE 75I, LLC
 Owner Address: 500 FIFTH AVENUE, SUITE 1600, NEW YORK, NY 10110

Operator Phone #: (917) 217-5362
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #6 Fuel Oil | 5000 | Aboveground – In Contact with Soil | 03/01/2006 | | |

Map Identification Number 346  **6-16 WEST 77 STREET** **Facility Id: 2-064696** **Source: NYS DEC**
 6 WEST 77TH ST NEW YORK, 10024 TT-Id: 640A-0030-294

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 500 feet to the S

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: VLADA STEFANOVICH
 Owner Name: PATRICIA PETTAWAY-BROWN – COMPLIANCE
 Owner Company: 6-16 W 77 ST CORP
 Owner Address: 6-16 WEST 77 STREET, NEW YORK, NY 10036

Operator Phone #: (212) 362-1617
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------------------------|--------------|-----------|------------|
| 001 | In Service | #6 Fuel Oil | 10000 | Underground Vaulted with Access | 05/15/1924 | | |
| 002 | In Service | #2 Fuel Oil | 2000 | Underground Vaulted with Access | 05/15/1954 | | |

Map Identification Number 347 **WEST 82ND OWNERS CORPORATION**
 107-111 WEST 82ND STREET

Facility Id: 2-603532 **Source: NYS DEC**
 NEW YORK, 10024 TT-Id: 640A-0039-409

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 503 feet to the N

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: JEFFERSON VICENTE
 Owner Name: WHITNEY COLBURN – MANAGEMENT SUPERVISOR
 Owner Company: WEST 82ND OWNERS CORP. C/O MARIN MGT.
 Owner Address: 157 EAST 25TH ST, NEW YORK, NY 10010

Operator Phone #: (212) 579-9774
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #2 Fuel Oil | 3000 | Aboveground – In Contact with Soil | 06/30/1986 | | |

Map Identification Number 348 **107-111 W.82 ST.ASSOC.**
 109 W 82 ST

Facility Id: NY00056 **Source: NYC FIRE DEPT**
 NEW YORK, NY 10024 TT-Id: 660A-0005-730

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 503 feet to the N

ADDRESS CHANGE INFORMATION
 Revised street: 109 W 82ND ST
 Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: FUEL OIL-1500 GAL.TANK
 KEY AT 111 W.82 STREET/APT.#5D

Map Identification Number 349 **N&R REALTY**
 471 COLUMBUS AVENUE

Facility Id: 2-607024 **Source: NYS DEC**
 NEW YORK, 10024 TT-Id: 640A-0032-139

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 504 feet to the NNE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: NICK ZINGONE
 Owner Name: NICHOLAS ZINGONE – PARTNER
 Owner Company: NICK ZINGONE
 Owner Address: 471 COLUMBUS AVENUE, NEW YORK, NY 10024

Operator Phone #: (212) 877-7525
 Owner Type: Private Resident

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 1 | In Service | #2 Fuel Oil | 2500 | Aboveground – In Contact with Soil | 01/01/1976 | | |

Map Identification Number 350



N & R REALTY CO
471 COLUMBUS AVE

NEW YORK, NY 10024

Facility Id: NY07044

Source: NYC FIRE DEPT
TT-Id: 660A-0005-553

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 504 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: FUEL OIL #4 2000G

Map Identification Number 351



APT BUILDING
140 W 79TH ST

NEW YORK, 10024

Facility Id: 2-306142

Source: NYS DEC
TT-Id: 640A-0031-221

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 511 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Operator Name: JOSE CUADRO

Operator Phone #: (212) 595-0238

Owner Name: -

Owner Company: NALEA REALTY

Owner Type: Corporate or Commercial

Owner Address: 33 STEPHEN DR, ENG CLIFF, NJ 07632

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | Closed – Removed | #6 Fuel Oil | 4500 | Aboveground – In Contact with Soil | 01/09/1970 | | 11/25/2015 |

The following tank 001 content has been deleted or replaced: Diesel

Map Identification Number 352 **120 WEST 76TH STREET**
 120 WEST 76TH STREET

Facility Id: 2-608998
 NEW YORK, 10023

Source: NYS DEC
 TT-Id: 640A-0030-020

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 530 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: DAVID OHEYON
 Owner Name: -
 Owner Company: WEST SIDE INSTITUTIONAL SYNAGOGUE
 Owner Address: 120 WEST 76 ST, NEW YORK, NY 10023

Operator Phone #: (12) 877-7652
 Owner Type:

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 1 | In Service | #2 Fuel Oil | 4000 | Aboveground - In Contact with Soil | | | |

Map Identification Number 353 **WEST SIDE INST SYNG**
 120 W 76 ST

Facility Id: NY10324
 NEW YORK, NY 10023

Source: NYC FIRE DEPT
 TT-Id: 660A-0007-006

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 530 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: 120 W 76TH ST
 Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: FUEL OIL #2 -4,000 GALS TANK
 NO FEE

Map Identification Number 354 **145 W. 79TH STREET OWNERS CORP.**
 145 W. 79TH STREET

Facility Id: 2-600842
 NY, 10024

Source: NYS DEC
 TT-Id: 640A-0031-759

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 537 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: ED BDEEIOS
 Owner Name: MARK HOFFMAN - MANAGER
 Owner Company: 145 W. 79TH STREET OWNERS CORP.
 Owner Address: 145 W. 79TH STREET, NY, NY 10024

Operator Phone #: (212) 595-6292
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 01 | In Service | #2 Fuel Oil | 5000 | Aboveground on Crib Rack or Cradle | 01/01/1949 | | |

Map Identification Number 355  **83RD STREET OWNERS CORP** **Facility Id: 2-311871** **Source: NYS DEC**
 46 W 83 STREET NEW YORK, 10024 TT-Id: 640A-0032-465

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 541 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: 46 W 83RD STREET
 Revised zip code: NO CHANGE

Operator Name: ATILLA ADIGUEZEL
 Owner Name: KENNETH RYAN – PROPERTY MANAGER
 Owner Company: 83RD STREET OWNERS CORP
 Owner Address: 46 W 83 STREET, NEW YORK, NY 10024

Operator Phone #: (212) 362-0676
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #6 Fuel Oil | 5000 | Aboveground – In Contact with Soil | 07/10/1965 | | |

Map Identification Number 356  **146 WEST 79 ST** **Facility Id: 2-214507** **Source: NYS DEC**
 146 WEST 79TH STREET NEW YORK, 10024 TT-Id: 640A-0032-314

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 566 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: BENNY BERRIOS
 Owner Name: BRIAN BROXMEYER – PROPERTY MANAGER
 Owner Company: SUPREME COMPANY
 Owner Address: 150 E 58 ST, NEW YORK, NY 10155

Operator Phone #: (212) 799-0921
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------------------------|--------------|-----------|------------|
| 001 | In Service | #2 Fuel Oil | 2500 | Underground Vaulted with Access | 10/06/1970 | | |

Map Identification Number 357 **CHA REALTY LLC (JOSEPH CHADI)**
 101 WEST 75 ST.

Facility Id: 2-606629
 NEW YORK, 10023

Source: NYS DEC
 TT-Id: 640A-0032-693

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 572 feet to the SW

ADDRESS CHANGE INFORMATION
 Revised street: 101 WEST 75TH STREET
 Revised zip code: NO CHANGE

Operator Name: JOSEPH CHADI
 Owner Name: JOSEPH CHADI – OWENR
 Owner Company: CHA REALTY LLC (JOSEPH CHADI)
 Owner Address: 175 GREAT NECK RD STE 307, GREAT NECK, NY 11021

Operator Phone #: (631) 777-7004
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|---------------------------------|--------------|-----------|------------|
| 001 | In Service | #2 Fuel Oil | 1500 | Underground Vaulted with Access | 10/10/1989 | | |

Map Identification Number 358 **JOSEPH CHADI**
 101 W 75 ST

Facility Id: NY05520
 NEW YORK, NY 10023

Source: NYC FIRE DEPT
 TT-Id: 660A-0006-496

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 572 feet to the SW

ADDRESS CHANGE INFORMATION
 Revised street: 101 W 75TH ST
 Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: FUEL OIL #4 1500G

Map Identification Number 359 **BERESFORD APARTMENTS**
 211 CENTRAL PARK WEST

Facility Id: 2-113654
 NEW YORK, 10024

Source: NYS DEC
 TT-Id: 640A-0029-608

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (2)
 Approximate distance from property: 575 feet to the ENE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: SOLSTICE RESIDENTIAL
 Owner Name: ALEX KALAJIAN – V.P. OF OPERATIONS
 Owner Company: BERESFORD APARTMENTS
 Owner Address: 211 CENTRAL PARK WEST, NEW YORK, NY 10024

Operator Phone #: (212) 787-2100
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|--|-------------|--------------|------------------|---------------------------------|--------------|-----------|------------|
| 001 | In Service | #2 Fuel Oil | 20000 | Underground Vaulted with Access | 01/26/1956 | | |
| The following tank 001 content has been deleted or replaced: #6 Fuel Oil | | | | | | | |
| 002 | In Service | #2 Fuel Oil | 20000 | Underground Vaulted with Access | 01/26/1956 | | |
| The following tank 002 content has been deleted or replaced: #6 Fuel Oil | | | | | | | |

Map Identification Number 360

147 W 79TH ST
147 WEST 79TH STREET



Facility Id: 2-055549

Source: NYS DEC
TT-Id: 640A-0030-256

NEW YORK, 10024

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 598 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Operator Name: FITIM KUKIC
Owner Name: -
Owner Company: IG SECOND GENERATION PARTNERS, LP & I BLDG CO, INC
Owner Address: 417 FIFTH AVENUE, 4TH FLOOR, NEW YORK, NY 10016

Operator Phone #: (646) 235-5188
Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|--|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 104 | In Service | #2 Fuel Oil | 7500 | Aboveground - In Contact with Soil | 01/01/1970 | | |
| The following tank 104 content has been deleted or replaced: #6 Fuel Oil | | | | | | | |

Map Identification Number 361

FDNY ENGINE CO. 74
120 WEST 83RD STREET



Facility Id: 2-357898

Source: NYS DEC
TT-Id: 640A-0039-437

NEW YORK, 10024

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 608 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Operator Name: COMPANY OFFICER
Owner Name: -
Owner Company: FIRE DEPARTMENT
Owner Address: 9 METROTECH, BROOKLYN, NY 11201-3857

Operator Phone #: (212) 570-4274
Owner Type: Local Government

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | Closed - Removed | #2 Fuel Oil | 2000 | Aboveground - In Contact with Soil | 12/01/1977 | | 12/17/2007 |
| 002 | In Service | Diesel | 550 | Aboveground on Crib Rack or Cradle | 12/01/1966 | | |

**** TANK INFO CONTINUES ON NEXT PAGE ****

003 Closed – In Place Gasoline 275 Underground 07/01/1996

Map Identification Number 362 **155 WEST 81 STREET ASSOCIATES**
 155 WEST 81 STREET

Facility Id: 2-358495 **Source: NYS DEC**
 NEW YORK, 10024 TT-Id: 640A-0039-412

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 610 feet to the NNW

ADDRESS CHANGE INFORMATION
 Revised street: 155 W 81ST ST
 Revised zip code: NO CHANGE

Operator Name: CARLOS ARENAS
 Owner Name: MARK EISENSTEIN – MANAGER
 Owner Company: 155 WEST 81 STREET ASSOCIATES C/O EISENSTEIN
 Owner Address: 244 WEST 54 STREET, NEW YORK, NY 10019

Operator Phone #: (212) 663-3594
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #6 Fuel Oil | 5000 | Aboveground – In Contact with Soil | 06/01/1952 | | |

Map Identification Number 363 **158 WEST 81ST STREET**
 158 WEST 81ST STREET

Facility Id: 2-200905 **Source: NYS DEC**
 NEW YORK, 10024 TT-Id: 640A-0039-415

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 614 feet to the NNW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: EUGENE CAMILLERI
 Owner Name: ANNE GOLDRACH – PRESIDENT
 Owner Company: GREYSTONE PROPERTIES 81 LLC
 Owner Address: 30 VESEY ST, STE 1700, NEW YORK, NY 10007

Operator Phone #: (917) 834-8966
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #4 Fuel Oil | 3000 | Aboveground – In Contact with Soil | 01/01/1960 | | |

The following tank 001 content has been deleted or replaced: #6 Fuel Oil

Map Identification Number 364  **14-16 WEST 76TH ST., LLC**
14-16 WEST 76TH STREET

Facility Id: 2-607938
NEW YORK, 10023

Source: NYS DEC
TT-Id: 640A-0038-724

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)
Approximate distance from property: 617 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Operator Name: MARBROSE REALTY INC
Owner Name: -
Owner Company: 14-16 WEST 76TH STR.LLC C/O MARBROSE REALTY
Owner Address: 43 W. 75TH STREET, NEW YORK, NY 10023

Operator Phone #: (212) 769-3706

Owner Type: Private Resident

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | Closed - Removed | Empty | 2500 | Aboveground - In Contact with Soil | | | 04/24/2002 |

Map Identification Number 365  **CENTRAL PARK REALTY**
14 W 76 ST

Facility Id: NY02492
NEW YORK, NY 10023

Source: NYC FIRE DEPT
TT-Id: 660A-0006-156

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 623 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: 14 W 76TH ST
Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: FUEL OIL#2-2000 GAL.TANK

Map Identification Number 366  **150 WEST 79 CORP**
150 WEST 79TH STREET

Facility Id: 2-281808
NEW YORK, 10024

Source: NYS DEC
TT-Id: 640A-0031-100

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 625 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

Operator Name: JULIO RIVERA JR.
Owner Name: ANTHONY COLELLA - MANAGING DIRECTOR
Owner Company: 150 WEST 79 CORP
Owner Address: 250 PARK AVENUE SOUTH, NEW YORK, NY 10003-1402

Operator Phone #: (212) 787-2389

Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #6 Fuel Oil | 6000 | Aboveground – In Contact with Soil | 01/01/1980 | | |

Map Identification Number 367 **RESIDENTIAL BLDG** **Facility Id: 2-309133** **Source: NYS DEC**
 127 W 82 ST NEW YORK, 10024 TT-Id: 640A-0039-408

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 628 feet to the N

ADDRESS CHANGE INFORMATION
 Revised street: 127 W 82ND ST
 Revised zip code: NO CHANGE

Operator Name: DED DEDA Operator Phone #: (212) 595-0663
 Owner Name: -
 Owner Company: TIME EQUITIES INC Owner Type:
 Owner Address: 55 FIFTH AVE, NY, NY 10003

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------------------------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 022 | Tank Converted to Non-Regulated Use | #2 Fuel Oil | 5000 | Aboveground – In Contact with Soil | | | 01/01/2000 |

Map Identification Number 368 **GREYSTONE CONDOMINIUM** **Facility Id: 2-602707** **Source: NYS DEC**
 127 WEST 82ND STREET NEW YORK, 10024 TT-Id: 640A-0039-407

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 628 feet to the N

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: RICK MEKULOVIC Operator Phone #: (917) 355-9358
 Owner Name: -
 Owner Company: GREYSTONE CONDOMINIUM Owner Type: Corporate or Commercial
 Owner Address: 250 PARK AVE S. 4TH FL, NEW YORK, NY 10003

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 01 | In Service | #4 Fuel Oil | 5000 | Aboveground – In Contact with Soil | 01/01/1950 | | |

The following tank 01 content has been deleted or replaced: #2 Fuel Oil

Map Identification Number 369 **151 W 78 ST**
 151 WEST 78TH STREET

NEW YORK, 10024

Facility Id: 2-147370

Source: NYS DEC
 TT-Id: 640A-0032-245

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 630 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: 151 W 78TH ST
 Revised zip code: NO CHANGE

Operator Name: GILBERT AVILES
 Owner Name: -
 Owner Company: WEST 78TH ST ASSOCIATES
 Owner Address: 1370 BROADWAY 2ND FLOOR, NEW YORK, NY 10018

Operator Phone #: (212) 467-5749
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #2 Fuel Oil | 1500 | Aboveground - In Contact with Soil | | | |

Map Identification Number 370 **P.S. 87 - MANHATTAN (M087)**
 160 WEST 78TH STREET

NEW YORK, 10024

Facility Id: 2-353477

Source: NYS DEC
 TT-Id: 640A-0039-392

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 638 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: PLANT OPERATIONS
 Owner Name: MUNENDRA SHARMA - MANAGER, FUEL DIVISION
 Owner Company: NEW YORK CITY DEPARTMENT OF EDUCATION
 Owner Address: 44-36 VERNON BOULEVARD, LONG ISLAND CITY, NY 11101

Operator Phone #: (718) 349-5400
 Owner Type: Local Government

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #4 Fuel Oil | 9500 | Aboveground on Crib Rack or Cradle | 02/02/1954 | | |

The following tank 001 content has been deleted or replaced: #6 Fuel Oil

Map Identification Number 371 **146 W 82 ST OWNERS CORP**
 146 WEST 82ND STREET

NEW YORK, 10024

Facility Id: 2-198404

Source: NYS DEC
 TT-Id: 640A-0039-447

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 639 feet to the NNW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Operator Name: ROBERTO TORRES
 Owner Name: JASON CLAVELL – AGENT
 Owner Company: 146 WEST 82ND OWNERS CORP.C/O MAXWELL KATOS, INC
 Owner Address: 9 EAST 38TH. ST, NEW YORK, NY 10016

Operator Phone #: (917) 716–4902
 Owner Type: Private Resident

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------|--------------|------------------|------------------------------------|--------------|-----------|------------|
| 001 | In Service | #2 Fuel Oil | 1500 | Aboveground – In Contact with Soil | 07/25/1972 | | |

Map Identification Number 372 **481 COLUMBUS ASSOC.**
 73 W 83 ST

Facility Id: NY00755 **Source: NYC FIRE DEPT**
 NEW YORK, NY 10024 TT-Id: 660A–0005–959

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 640 feet to the NNE

ADDRESS CHANGE INFORMATION
 Revised street: 73 W 83RD ST
 Revised zip code: NO CHANGE

NOTE: This is an archived database

Comments: FUEL OIL #2–1,500 GAL.TANK
 LIQUOR STORE HAS KEY TO BOILER

Map Identification Number 373 **HARTFORD REALTY COMPANY, LLC**
 60 W 75 STREET

Facility Id: 2–265926 **Source: NYS DEC**
 NEW YORK, 10023 TT-Id: 640A–0032–384

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 659 feet to the SSW

ADDRESS CHANGE INFORMATION
 Revised street: 60 W 75TH STREET
 Revised zip code: NO CHANGE

Operator Name: R. AZZOPARDI
 Owner Name: –
 Owner Company: HARTFORD REALTY COMPANY, LLC
 Owner Address: 616 PALISADE AVENUE, ENGLEWOOD CLIFFS, NJ 07632

Operator Phone #: (212) 595–1451
 Owner Type: Corporate or Commercial

| TANK NUMBER | TANK STATUS | TANK CONTENT | CAPACITY GALLONS | TANK LOCATION | INSTALL DATE | TEST DATE | CLOSE DATE |
|-------------|-------------------|--------------|------------------|---------------------------------|--------------|-----------|------------|
| 001 | Closed – In Place | #6 Fuel Oil | 5000 | Underground Vaulted with Access | | | 08/28/1990 |



HAZARDOUS WASTE GENERATORS/TRANSPORTERS IDENTIFIED WITHIN 1/8 MILE SEARCH RADIUS

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identification Number 374  **NYSDEC Name:** **CONSOLIDATED EDISON** **Facility Id:** **NYP004188918**
 NYSDEC Address: WEST 80 ST & COLUMBUS AVE NEW YORK, NY TT-Id: 740A-0067-134
 EPA (RCRA) Name: CON EDISON
 EPA (RCRA) Address: W 80TH ST & COLUMBUS AVE NEW YORK, NY 10024

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 49 feet to the N*

ADDRESS CHANGE INFORMATION

Revised street: W 80TH ST / COLUMBUS AVE
 Revised zip code: NO CHANGE

US EPA RCRA Type: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

Notification date: None Given

Land Disposal: Receives offsite waste:
 Storer: Treatment facility:

Incinerator:
 Transporter:

Contact Name: ANTONIO DELGADO Source Type: Emergency Contact Phone: 212-580-8383 Contact Info Date: 07/30/2009

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 2000 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 375  **NYSDEC Name:** **CON EDISON** **Facility Id:** **NYP004739587**
 NYSDEC Address: W 80TH ST & COLUMBUS AVE BROOKLYN, NY 11233 TT-Id: 740A-0136-857
 V 8326

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 49 feet to the N*

ADDRESS CHANGE INFORMATION

Revised street: W 80TH ST / COLUMBUS AVE
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 376



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON

NWC 79 ST & COLUMBUS AVE
CON EDISON SERVICE BOX: 51927
COLUMBUS AVE & 79TH ST NW COR

NEW YORK, NY 10024
NEW YORK, NY 10024

Facility Id: NYP004322459

TT-Id: 740A-0096-555

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
Approximate distance from property: 50 feet to the W*

ADDRESS CHANGE INFORMATION

Revised street: W 79TH ST / COLUMBUS AVE
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:
Storer: Treatment facility:

Notification date: None Given
Incinerator:
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/24/2013
Contact Phone: 212-460-3770 Contact Info Date: 07/24/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 2000 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 377



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CON EDISON

SWC 79 & COLUMBUS AVE

CON EDISON MANHOLE: 51925

COLUMBUS AVE & 79TH ST SW COR

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004322616

TT-Id: 740A-0096-568

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 50 feet to the W*

ADDRESS CHANGE INFORMATION

Revised street: W 79TH ST / COLUMBUS AVE

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: None Given

Incinerator:

Transporter:

Contact Name: THOMAS TEELING

Source Type: Emergency

Contact Phone: 212-460-3770

Contact Info Date: 06/24/2013

Contact Name: THOMAS TEELING

Source Type: Implementer

Contact Phone: 212-460-3770

Contact Info Date: 07/24/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 378



NYSDEC Name:

NYSDEC Address:

CON EDISON

NWC 79 ST & COLUMBUS AVE

SB 51927

NEW YORK, NY 10024

Facility Id: NYP004584280

TT-Id: 740A-0123-546

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 50 feet to the W*

ADDRESS CHANGE INFORMATION

Revised street: W 79TH ST / COLUMBUS AVE

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 379



NYSDEC Name:
NYSDEC Address:

CON EDISON
SWC 79 ST & COLUMBUS AVE
MH 51925

NEW YORK, NY 10024

Facility Id: NYP004616207
TT-Id: 740A-0123-547

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
Approximate distance from property: 50 feet to the W*

ADDRESS CHANGE INFORMATION

Revised street: W 79TH ST / COLUMBUS AVE
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 380



NYSDEC Name:
NYSDEC Address:

CON EDISON
18-120 79 ST & COLUMBUS AVE
SB 14141

NEW YORK, NY 10024

Facility Id: NYP004616215
TT-Id: 740A-0122-566

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
Approximate distance from property: 50 feet to the W*

ADDRESS CHANGE INFORMATION

Revised street: 18-120 W 79TH ST / COLUMBUS AVE
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 381



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON

FO 51-7 W 81 ST EO COLUMBUS AVE NEW YORK, NY 10024
CON EDISON SERVICE BOX: 14410
517 W 81ST ST & COLUMBUS AVE FRONT NEW YORK, NY 10024
OF

Facility Id: NYP004323150

TT-Id: 740A-0095-480

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
Approximate distance from property: 74 feet to the NNE*

ADDRESS CHANGE INFORMATION

Revised street: IFO 51-57 W 81ST ST
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:
Storer: Treatment facility:

Notification date: None Given

Incinerator:
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/26/2013
Contact Phone: 212-460-3770 Contact Info Date: 07/26/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 250 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 382



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON

FO 426-428 COLUMBUS AVE NO 80 ST NEW YORK, NY 10024
CON EDISON SERVICE BOX: 51935
426-428 COLUMBUS AVE & 80TH ST FRONT NEW YORK, NY 10024
OF

Facility Id: NYP004322483

TT-Id: 740A-0095-461

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
Approximate distance from property: 75 feet to the N*

ADDRESS CHANGE INFORMATION

Revised street: IFO 426-428 COLUMBUS AVE
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:
Storer: Treatment facility:

Notification date: None Given

Incinerator:
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/24/2013
Contact Phone: 212-460-3770 Contact Info Date: 07/24/2013

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 250 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 383



NYSDEC Name:

NYSDEC Address:
 EPA (RCRA) Name:
 EPA (RCRA) Address:

CON EDISON

FO 430-32 COLUMBUS AVE NO 80 ST
 CON EDISON SERVICE BOX: 51936
 430-32 COLUMBUS AVE & 80TH ST FRONT
 OF

NEW YORK, NY 10024
 NEW YORK, NY 10024

Facility Id: NYP004322491

TT-Id: 740A-0095-462

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 75 feet to the N*

ADDRESS CHANGE INFORMATION

Revised street: IFO 430-432 COLUMBUS AVE
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:
 Storer: Treatment facility:

Notification date: None Given
 Incinerator:
 Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency
 Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/24/2013
 Contact Phone: 212-460-3770 Contact Info Date: 07/24/2013

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 250 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 384



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON

FO 422-424 COLUMBUS AVE
CON EDISON SERVICE BOX: 51934
422-424 COLUMBUS AVE & 80TH ST FRONT
OF

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004322475

TT-Id: 740A-0095-459

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
Approximate distance from property: 76 feet to the N*

ADDRESS CHANGE INFORMATION

Revised street: IFO 422-424 COLUMBUS AVE
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:
Storer: Treatment facility:

Notification date: None Given

Incinerator:
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/24/2013
Contact Phone: 212-460-3770 Contact Info Date: 07/24/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 250 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 385



NYSDEC Name:

NYSDEC Address:

CONED

W 77TH ST & COLUMBUS AVE

NEW YORK, NY 10001

Facility Id: NYP004177564

TT-Id: 740A-0066-409

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
Approximate distance from property: 79 feet to the SW*

ADDRESS CHANGE INFORMATION

Revised street: W 77TH ST / COLUMBUS AVE
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1100 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 386



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CONSOLIDATED EDISON SB51914

W 77 ST AND COLUMBUS AVE
CON EDISON – SERVICE BOX 51914
W 77 ST AND COLUMBUS AVE

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004191276

TT-Id: 740A-0068-644

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
Approximate distance from property: 79 feet to the SW*

ADDRESS CHANGE INFORMATION

Revised street: W 77TH ST / COLUMBUS AVE
Revised zip code: UNKNOWN

US EPA RCRA Type: LARGE QUANTITY GENERATOR

Land Disposal: Receives offsite waste:

Storer: Treatment facility:

Contact Name: FRANKLYN MURRAY

Contact Name: ANTHONY BUDA

Source Type: Annual/Biennial Report update with Notification

Source Type: Emergency

Notification date: None Given

Incinerator:

Transporter:

Contact Phone: 212-460-2808

Contact Phone: 917-440-1809

Contact Info Date: 03/23/2010

Contact Info Date: 08/17/2009

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 4000 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 387



NYSDEC Name:

NYSDEC Address:

CONSOLIDATED EDISON COMPANY OF NY

N/W/C W 77TH ST AND CENTRAL PA
RK WEST

NEW YORK, NY 10024

Facility Id: NYP004252771

TT-Id: 740A-0082-726

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
Approximate distance from property: 79 feet to the SW*

ADDRESS CHANGE INFORMATION

Revised street: W 77TH ST / COLUMBUS AVE
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 3000 | POUNDS | GENERATED | 2012 | | |

Map Identification Number 388



NYSDEC Name:
NYSDEC Address:

CONSOLIDATED EDISON
N/E COLUMBUS & 77 ST

NEW YORK, NY 10024

Facility Id: NYP004253761
TT-Id: 740A-0082-728

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
Approximate distance from property: 79 feet to the SW*

ADDRESS CHANGE INFORMATION

Revised street: COLUMBUS AVE / W 77TH ST
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2012 | | |

Map Identification Number 389



NYSDEC Name:
NYSDEC Address:

EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON
NW COLUMBUS & 77 ST
SB #51914
CON EDISON SERVICE BOX: 51914
COLUMBUS AVE & W 77TH ST

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004323655
TT-Id: 740A-0096-553

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
Approximate distance from property: 79 feet to the SW*

ADDRESS CHANGE INFORMATION

Revised street: COLUMBUS AVE / W 77TH ST
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Notification date: None Given

Land Disposal: Receives offsite waste:

Incinerator:

Storer: Treatment facility:

Transporter:

Contact Name: RICARDO CARTY Source Type: Emergency
Contact Name: RICARDO CARTY Source Type: Implementer

Contact Phone: 646-772-3407 Contact Info Date: 07/01/2013
Contact Phone: 646-772-3407 Contact Info Date: 08/01/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 1500 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 390



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

AMERICAN MUSEUM OF NATIONAL HISTORY

79TH STREET & COLUMBIA
AMERICAN MUSEUM OF NATURAL HISTORY
CENTRAL PARK WEST AND 79TH STR

NEW YORK, NY 10024
NEW YORK, NY 10024

Facility Id: NYD061202768

TT-Id: 740A-0031-849

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)
Approximate distance from property: 86 feet to the SE*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA Type: SMALL QUANTITY GENERATOR

Land Disposal: Receives offsite waste:
Storer: Treatment facility:

Notification date: 06/23/1986

Incinerator:
Transporter:

Contact Name: KALA HARINARAYANAN Source Type: Implementer
Contact Name: RAJ VOHRA Source Type: Notification
Contact Name: KALA HARINARAYANAN Source Type: Annual/Biennial Report

Contact Phone: 212-756-5226 Contact Info Date: 01/01/2007
Contact Phone: 212-873-6095 Contact Info Date: 06/23/1986
Contact Phone: 212-756-5226 Contact Info Date: 02/23/2004

Historically listed as the following USEPA RCRA Generator Size(s) as well:
LARGE QUANTITY GENERATOR

US EPA RCRA Violations:

Violation Type: Generators – General
Violation Number: 0001 Location: NY
Former Citation:

Responsible Agency: STATE
Violation Determination Date: 10/21/1997
Violation Return to Compliance: 10/26/1998

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|--|--------------|-------------|------------------|------|-------------------------|------|
| D001 | Solid waste that exhibits the characteristic of ignitability | 5060 | POUNDS | GENERATED | 2015 | 6811 | 2012 |
| D002 | Solid waste that exhibits the characteristic of corrosivity | 23 | POUNDS | GENERATED | 2015 | 1690 | 1992 |
| D008 | Lead | 450 | POUNDS | GENERATED | 2015 | 3874 | 2011 |
| U151 | Mercury | 4 | POUNDS | GENERATED | 2015 | | |
| U188 | Phenol | 5 | POUNDS | GENERATED | 2015 | 350 | 2001 |

More than one waste code was reported for the following waste amount:

| | | | | | | | |
|------|--|----|--------|-----------|------|----|------|
| D001 | Solid waste that exhibits the characteristic of ignitability | 80 | POUNDS | GENERATED | 2015 | 90 | 2010 |
|------|--|----|--------|-----------|------|----|------|

More than one waste code was reported for the following waste amount:

| | | | | | | | |
|------|--|-----|--------|-----------|------|--|--|
| D001 | Solid waste that exhibits the characteristic of ignitability | 115 | POUNDS | GENERATED | 2015 | | |
|------|--|-----|--------|-----------|------|--|--|

NYS DEC Manifested Waste Transactions for NYD061202768 continued ---- see previous page

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|---|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | | | | | | |
| D018 | BENZENE | | | | | | |
| | More than one waste code was reported for the following waste amount: | 35 | POUNDS | GENERATED | 2015 | 97 | 2014 |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D018 | BENZENE | | | | | | |
| | More than one waste code was reported for the following waste amount: | 1 | POUNDS | GENERATED | 2015 | | |
| D002 | Solid waste that exhibits the characteristic of corrosivity | | | | | | |
| D003 | Solid waste that exhibits the characteristic of reactivity | | | | | | |
| | More than one waste code was reported for the following waste amount: | 3 | POUNDS | GENERATED | 2015 | | |
| D002 | Solid waste that exhibits the characteristic of corrosivity | | | | | | |
| U122 | Formaldehyde | | | | | | |
| | More than one waste code was reported for the following waste amount: | 6 | POUNDS | GENERATED | 2015 | | |
| U044 | Chloroform | | | | | | |
| U188 | Phenol | | | | | | |
| D009 | Mercury | 23 | POUNDS | GENERATED | 2014 | 6821 | 1997 |
| D022 | Chloroform | 25 | POUNDS | GENERATED | 2014 | 40 | 1997 |
| P106 | Sodium cyanide Na(CN) | 1 | POUNDS | GENERATED | 2014 | 5 | 2009 |
| U072 | Benzene, 1,4-dichloro- | 275 | POUNDS | GENERATED | 2014 | 1710 | 2000 |
| | More than one waste code was reported for the following waste amount: | 60 | POUNDS | GENERATED | 2014 | 100 | 2013 |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D002 | Solid waste that exhibits the characteristic of corrosivity | | | | | | |
| F003 | Spent non-halogenated solvents | | | | | | |
| F005 | Spent non-halogenated solvents | | | | | | |
| | More than one waste code was reported for the following waste amount: | 1 | POUNDS | GENERATED | 2014 | 70 | 2011 |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D003 | Solid waste that exhibits the characteristic of reactivity | | | | | | |
| B007 | Other PCB Wastes including contaminated soil, solids, sludges, clothing, etc. | 318 | KILOGRAMS | GENERATED | 2013 | | |
| D004 | Arsenic | 5 | POUNDS | GENERATED | 2013 | 10 | 1986 |
| | More than one waste code was reported for the following waste amount: | 30 | POUNDS | GENERATED | 2013 | 30 | 2012 |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D002 | Solid waste that exhibits the characteristic of corrosivity | | | | | | |

NYS DEC Manifested Waste Transactions for NYD061202768 continued ---- see previous page

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|---|--------------|-------------|------------------|------|-------------------------|------|
| F003 | Spent non-halogenated solvents | | | | | | |
| U122 | Formaldehyde | | | | | | |
| | More than one waste code was reported for the following waste amount: | 20 | POUNDS | GENERATED | 2013 | 300 | 2011 |
| D002 | Solid waste that exhibits the characteristic of corrosivity | | | | | | |
| D008 | Lead | | | | | | |
| | More than one waste code was reported for the following waste amount: | 36 | POUNDS | GENERATED | 2013 | | |
| D004 | Arsenic | | | | | | |
| D009 | Mercury | | | | | | |
| | More than one waste code was reported for the following waste amount: | 70 | POUNDS | GENERATED | 2013 | | |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D018 | BENZENE | | | | | | |
| F002 | Spent halogenated solvents | | | | | | |
| F008 | Plating bath residues from the bottom of plating baths | | | | | | |
| F005 | Spent non-halogenated solvents | | | | | | |
| | More than one waste code was reported for the following waste amount: | 95 | POUNDS | GENERATED | 2013 | | |
| D008 | Lead | | | | | | |
| D011 | Silver | | | | | | |
| U080 | Methylene chloride | | | | | | |
| U228 | Ethene, trichloro- | | | | | | |
| U238 | Carbamic acid, ethyl ester | | | | | | |
| D003 | Solid waste that exhibits the characteristic of reactivity | 5 | POUNDS | GENERATED | 2012 | 20 | 1991 |
| | More than one waste code was reported for the following waste amount: | 50 | POUNDS | GENERATED | 2012 | | |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D002 | Solid waste that exhibits the characteristic of corrosivity | | | | | | |
| F003 | Spent non-halogenated solvents | | | | | | |
| F005 | Spent non-halogenated solvents | | | | | | |
| U002 | Acetone (l) | | | | | | |
| | More than one waste code was reported for the following waste amount: | 15 | POUNDS | GENERATED | 2012 | | |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D007 | Chromium | | | | | | |
| D011 | Silver | | | | | | |

NYS DEC Manifested Waste Transactions for NYD061202768 continued ----

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|---|--|--------------|-------------|------------------|------|-------------------------|------|
| More than one waste code was reported for the following waste amount: | | 255 | POUNDS | GENERATED | 2012 | 1725 | 2008 |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| F003 | Spent non-halogenated solvents | | | | | | |
| F005 | Spent non-halogenated solvents | | | | | | |
| More than one waste code was reported for the following waste amount: | | 3 | POUNDS | GENERATED | 2012 | | |
| D002 | Solid waste that exhibits the characteristic of corrosivity | | | | | | |
| D004 | Arsenic | | | | | | |
| More than one waste code was reported for the following waste amount: | | 0.28 | POUNDS | GENERATED | 2012 | | |
| D003 | Solid waste that exhibits the characteristic of reactivity | | | | | | |
| P105 | Sodium azide | | | | | | |
| More than one waste code was reported for the following waste amount: | | 0.07 | POUNDS | GENERATED | 2012 | 1 | 2011 |
| D003 | Solid waste that exhibits the characteristic of reactivity | | | | | | |
| P106 | Sodium cyanide Na(CN) | | | | | | |
| More than one waste code was reported for the following waste amount: | | 80 | POUNDS | GENERATED | 2012 | | |
| D004 | Arsenic | | | | | | |
| D008 | Lead | | | | | | |
| D011 | Silver | | | | | | |
| More than one waste code was reported for the following waste amount: | | 10 | POUNDS | GENERATED | 2012 | | |
| D005 | Barium | | | | | | |
| D007 | Chromium | | | | | | |
| D008 | Lead | | | | | | |
| More than one waste code was reported for the following waste amount: | | 75 | GALLONS | GENERATED | 2012 | | |
| D008 | Lead | | | | | | |
| D002 | Solid waste that exhibits the characteristic of corrosivity | | | | | | |
| More than one waste code was reported for the following waste amount: | | 5 | POUNDS | GENERATED | 2012 | | |
| D022 | Chloroform | | | | | | |
| U010 | Mitomycin C | | | | | | |
| More than one waste code was reported for the following waste amount: | | 7 | POUNDS | GENERATED | 2012 | | |
| D022 | Chloroform | | | | | | |
| U188 | Phenol | | | | | | |

NYS DEC Manifested Waste Transactions for NYD061202768 continued ----

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|---|--|--------------|-------------|------------------|------|-------------------------|------|
| More than one waste code was reported for the following waste amount: | | 130 | POUNDS | GENERATED | 2012 | | |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| F003 | Spent non-halogenated solvents | | | | | | |
| F005 | Spent non-halogenated solvents | | | | | | |
| U117 | Ethyl ether (l) | | | | | | |
| U239 | Xylene (l) | | | | | | |
| U007 | Acrylamide | 2 | POUNDS | GENERATED | 2011 | 120 | 2000 |
| D007 | Chromium | 30 | POUNDS | GENERATED | 2010 | 60 | 1992 |
| P087 | Osmium oxide OsO4, (T-4)- | 2 | POUNDS | GENERATED | 2010 | 16 | 1996 |
| U080 | Methylene chloride | 35 | POUNDS | GENERATED | 2010 | 40 | 1998 |
| More than one waste code was reported for the following waste amount: | | 3 | POUNDS | GENERATED | 2010 | | |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D008 | Lead | | | | | | |
| More than one waste code was reported for the following waste amount: | | 130 | POUNDS | GENERATED | 2010 | | |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D002 | Solid waste that exhibits the characteristic of corrosivity | | | | | | |
| D035 | Methyl ethyl ketone | | | | | | |
| More than one waste code was reported for the following waste amount: | | 60 | POUNDS | GENERATED | 2010 | | |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D005 | Barium | | | | | | |
| F002 | Spent halogenated solvents | | | | | | |
| More than one waste code was reported for the following waste amount: | | 1 | POUNDS | GENERATED | 2009 | 7 | 2007 |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D011 | Silver | | | | | | |
| More than one waste code was reported for the following waste amount: | | 2 | POUNDS | GENERATED | 2008 | 20 | 2007 |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D022 | Chloroform | | | | | | |
| More than one waste code was reported for the following waste amount: | | 7 | POUNDS | GENERATED | 2007 | | |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D002 | Solid waste that exhibits the characteristic of corrosivity | | | | | | |
| D003 | Solid waste that exhibits the characteristic of reactivity | | | | | | |

NYS DEC Manifested Waste Transactions for NYD061202768 continued ----

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|---|--|--------------|-------------|------------------|------|-------------------------|------|
| More than one waste code was reported for the following waste amount: | | 100 | POUNDS | GENERATED | 2007 | | |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D002 | Solid waste that exhibits the characteristic of corrosivity | | | | | | |
| D018 | BENZENE | | | | | | |
| D035 | Methyl ethyl ketone | | | | | | |
| More than one waste code was reported for the following waste amount: | | 150 | POUNDS | GENERATED | 2007 | | |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D002 | Solid waste that exhibits the characteristic of corrosivity | | | | | | |
| U003 | Acetonitrile (I,T) | | | | | | |
| More than one waste code was reported for the following waste amount: | | 125 | POUNDS | GENERATED | 2007 | | |
| D004 | Arsenic | | | | | | |
| D022 | Chloroform | | | | | | |
| F002 | Spent halogenated solvents | 400 | POUNDS | GENERATED | 2006 | 400 | 1998 |
| F027 | Discarded unused formulations | 5 | POUNDS | GENERATED | 2006 | | |
| U002 | Acetone (I) | 375 | POUNDS | GENERATED | 2006 | | |
| U044 | Chloroform | 8 | POUNDS | GENERATED | 2006 | 45 | 1997 |
| U122 | Formaldehyde | 5 | POUNDS | GENERATED | 2006 | 120 | 1995 |
| U147 | 2,5-Furandione | 5 | POUNDS | GENERATED | 2006 | | |
| More than one waste code was reported for the following waste amount: | | 7 | POUNDS | GENERATED | 2006 | | |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D022 | Chloroform | | | | | | |
| U188 | Phenol | | | | | | |
| More than one waste code was reported for the following waste amount: | | 66 | POUNDS | GENERATED | 2006 | | |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| D043 | Vinyl chloride | | | | | | |
| More than one waste code was reported for the following waste amount: | | 6 | POUNDS | GENERATED | 2006 | | |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| U082 | 2,6-Dichlorophenol | | | | | | |
| More than one waste code was reported for the following waste amount: | | 120 | POUNDS | GENERATED | 2006 | | |
| D001 | Solid waste that exhibits the characteristic of ignitability | | | | | | |
| U165 | Naphthalene | | | | | | |
| B001 | PCB Oil (concentrated) from transformers, capacitors, etc. | 1 | KILOGRAMS | GENERATED | 2005 | | |

NYS DEC Manifested Waste Transactions for NYD061202768 continued ----

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|--|--------------|-------------|------------------|------|-------------------------|------|
| D006 | Cadmium | 50 | POUNDS | GENERATED | 2005 | 150 | 1999 |
| D007 | Chromium | 600 | GALLONS | GENERATED | 2005 | | |
| F003 | Spent non-halogenated solvents | 630 | POUNDS | GENERATED | 2005 | 2125 | 2003 |
| P030 | Cyanides (soluble cyanide salts), not otherwise specified | 1 | POUNDS | GENERATED | 2005 | 70 | 1992 |
| U021 | Benzidine | 175 | POUNDS | GENERATED | 2005 | | |
| U123 | Formic acid (C,T) | 50 | POUNDS | GENERATED | 2005 | 135 | 2000 |
| U134 | Hydrogen fluoride (C,T) | 1 | POUNDS | GENERATED | 2005 | | |
| U138 | Methane, iodo- | 1 | POUNDS | GENERATED | 2005 | | |
| U165 | Naphthalene | 23 | POUNDS | GENERATED | 2005 | 700 | 2000 |
| U108 | 1,4-Diethyleneoxide | 75 | POUNDS | GENERATED | 2004 | | |
| F005 | Spent non-halogenated solvents | 300 | POUNDS | GENERATED | 2002 | | |
| D011 | Silver | 60 | POUNDS | GENERATED | 2000 | 900 | 1996 |
| D001 | Solid waste that exhibits the characteristic of ignitability | 19 | GALLONS | GENERATED | 1999 | | |
| F001 | Spent halogenated solvents used in degreasing | 100 | GALLONS | GENERATED | 1999 | | |
| D018 | BENZENE | 400 | POUNDS | GENERATED | 1997 | 400 | 1996 |
| U182 | 1,3,5-Trioxane, 2,4,6-trimethyl- | 30 | POUNDS | GENERATED | 1997 | | |
| U238 | Carbamic acid, ethyl ester | 30 | POUNDS | GENERATED | 1997 | | |
| U211 | Methane, tetrachloro- | 10 | POUNDS | GENERATED | 1996 | 10 | 1992 |
| U012 | Aniline (I,T) | 60 | POUNDS | GENERATED | 1995 | 60 | 1994 |
| P012 | Arsenic oxide As ₂ O ₃ | 20 | POUNDS | GENERATED | 1994 | | |
| U019 | Benzene (I,T) | 115 | POUNDS | GENERATED | 1994 | | |
| U220 | Toluene | 60 | POUNDS | GENERATED | 1994 | | |
| P108 | Strychnine, & salts | 10 | POUNDS | GENERATED | 1992 | | |
| U069 | 1,2-Benzenedicarboxylic acid, dibutyl ester | 10 | POUNDS | GENERATED | 1992 | | |
| U077 | Ethane, 1,2-dichloro- | 60 | POUNDS | GENERATED | 1992 | | |
| U228 | Ethene, trichloro- | 60 | POUNDS | GENERATED | 1992 | | |
| U239 | Xylene (I) | 60 | POUNDS | GENERATED | 1992 | | |
| F004 | Spent non-halogenated solvents | 10 | POUNDS | GENERATED | 1988 | | |
| X726 | Unknown waste type. | 400 | POUNDS | GENERATED | 1988 | | |
| X850 | Unknown waste type. | 190 | POUNDS | GENERATED | 1988 | 240 | 1986 |
| X900 | Unknown waste type. | 800 | POUNDS | GENERATED | 1988 | | |
| X940 | Unknown waste type. | 525 | POUNDS | GENERATED | 1986 | | |

Map Identification Number 391  **NYSDEC Name:** **AMERICAN MUSEUM OF NATURAL HISTORY** **Facility Id: NYP000782847**
NYSDEC Address: CENTRAL PARK W & 79TH ST NEW YORK, NY 10024 TT-Id: 740A-0026-445

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)
 Approximate distance from property: 86 feet to the SE*

ADDRESS CHANGE INFORMATION

Revised street: CENTRAL PARK WEST / w 79TH ST
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|--|--------------|-------------|------------------|------|-------------------------|------|
| D001 | Solid waste that exhibits the characteristic of ignitability | 120 | POUNDS | GENERATED | 1984 | | |

Map Identification Number 392  **NYSDEC Name:** **CONSOLIDATED EDISON** **Facility Id: NYP004084364**
NYSDEC Address: V0062 - 41-49 W 81ST NEW YORK, NY 10003 TT-Id: 740A-0024-674
EPA (RCRA) Name: CON EDISION - V0062
EPA (RCRA) Address: 4149 WEST 81ST 4149 WEST 81ST NEW YORK, NY 10003

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 129 feet to the NE*

ADDRESS CHANGE INFORMATION

Revised street: 41-49 W 81ST ST
 Revised zip code: 10024

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Notification date: None Given

Land Disposal: Receives offsite waste:
 Storer: Treatment facility:

Incinerator:
 Transporter:

Contact Name: ANTHONY DRUMMINGS Source Type: Implementer
 Contact Name: ANTHONY DRUMMINGS Source Type: Annual/Biennial Report

Contact Phone: 212-460-3770 Contact Info Date: 06/02/2002
 Contact Phone: 212-460-3770 Contact Info Date: 05/31/2002

Historically listed as the following USEPA RCRA Generator Size(s) as well:
 LARGE QUANTITY GENERATOR

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|--|--------------|-------------|------------------|------|-------------------------|------|
| B002 | Petroleum oil or other liquid containing 50 ppm < PCBs < 500 ppm | 2600 | KILOGRAMS | GENERATED | 2001 | | |

Map Identification Number 393



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON

FO 41 W 81 ST EO COLUMBUS AVE
CON EDISON SERVICE BOX: 14412
419 W 81ST ST & COLUMBUS AVE FRONT
OF

NEW YORK, NY 10024
NEW YORK, NY 10024

Facility Id: NYP004322772

TT-Id: 740A-0093-784

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 129 feet to the NE*

ADDRESS CHANGE INFORMATION

Revised street: 41 W 81ST ST
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:
Storer: Treatment facility:

Contact Name: THOMAS TEELING Source Type: Emergency
Contact Name: THOMAS TEELING Source Type: Implementer

Notification date: None Given

Incinerator:
Transporter:

Contact Phone: 212-460-3770 Contact Info Date: 06/25/2013
Contact Phone: 212-460-3770 Contact Info Date: 07/25/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 394



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

ADLERS CLEANERS

445 COLUMBUS AVE
ADLERS
445 COLUMBUS AVE

NEW YORK, NY 10024
NEW YORK, NY 10024

Facility Id: NYD006545883

TT-Id: 740A-0024-747

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 132 feet to the NNE*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: 11/23/1994
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: MARTIN REINGOLD Source Type: Implementer Contact Phone: 212-362-4565 Contact Info Date: 01/01/2007
 Contact Name: MARTIN REINGOLD Source Type: Notification Contact Phone: 212-362-4565 Contact Info Date: 11/23/1994

Historically listed as the following USEPA RCRA Generator Size(s) as well:
 CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

US EPA RCRA Violations:
 Violation Type: Generators – Manifest Responsible Agency: STATE
 Violation Number: 0001 Location: NY Violation Determination Date: 04/24/1987
 Former Citation: Violation Return to Compliance: 04/26/1987

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|----------------------------|--------------|-------------|------------------|------|-------------------------|------|
| F002 | Spent halogenated solvents | 390 | POUNDS | GENERATED | 1998 | 5225 | 1988 |
| F002 | Spent halogenated solvents | 55 | GALLONS | GENERATED | 1986 | | |

Map Identification Number 395 **NYSDEC Name: JEFAN CLEANING SERVICE** **Facility Id: NYD981083835**
 NYSDEC Address: 445 COLUMBUS AVENUE NEW YORK, NY 10024 TT-Id: 740A-0024-803
 EPA (RCRA) Name: JEFAN CLEANING SERVICE CORP
 EPA (RCRA) Address: 445 COLUMBUS AVE NEW YORK, NY 10024

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 132 feet to the NNE*

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: 07/15/1985
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: MARTIN REINGOLD Source Type: Notification Contact Phone: 212-555-1212 Contact Info Date: 07/15/1985

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|----------------------------|--------------|-------------|------------------|------|-------------------------|------|
| F002 | Spent halogenated solvents | 800 | POUNDS | GENERATED | 1986 | | |

Map Identification Number 396  **NYSDEC Name:** **EVELYN BUILDING THE** **Facility Id:** **NYR000225490**
 NYSDEC Address: 101 W 78TH ST NEW YORK, NY 10018 TT-Id: 740A-0145-078
 EPA (RCRA) Name: EVELYN BUILDING THE
 EPA (RCRA) Address: 101 W 78TH ST NEW YORK, NY 10018

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 141 feet to the WSW*

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

US EPA RCRA Type: SMALL QUANTITY GENERATOR
 Land Disposal: Receives offsite waste:
 Storer: Treatment facility:
 Contact Name: JOE VELA Source Type: Temporary

Notification date: None Given
 Incinerator:
 Transporter:
 Contact Phone: 248-408-9308 Contact Info Date: 01/22/2016

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|---|--------------|-------------|------------------|------|-------------------------|------|
| NONE | Site reported by US EPA. No hazardous waste activity reported by NYS. | | | | | | |

Map Identification Number 397  **NYSDEC Name:** **CON EDISON** **Facility Id:** **NYP004660627**
 NYSDEC Address: 420 COLUMBUS & 80 ST NEW YORK, NY 10024 TT-Id: 740A-0122-569
 SERVICE BOX # 51935

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 143 feet to the NNW*

ADDRESS CHANGE INFORMATION
 Revised street: 420 COLUMBUS AVE
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 398



NYSDEC Name:

NYSDEC Address:
 EPA (RCRA) Name:
 EPA (RCRA) Address:

CON EDISON

FO 441 COLUMBUS AVE NO 81 ST
 CON EDISON SERVICE BOX: 51944
 441 COLUMBUS AVE & 81ST ST FRONT
 OF

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004322699

TT-Id: 740A-0093-779

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 144 feet to the NNE*

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:
 Storer: Treatment facility:

Notification date: None Given

Incinerator:
 Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency
 Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/24/2013
 Contact Phone: 212-460-3770 Contact Info Date: 07/24/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 399



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

PARK 44 CORPORATION

44 W 77TH ST

PARK 44 CORPORATION

44 W 77TH ST

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYR000176487

TT-Id: 740A-0072-157

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 200 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA Type: SMALL QUANTITY GENERATOR

Land Disposal:

Storer:

Contact Name: BRYAN SHAW

Contact Name: ANTHONY KIERNAN

Receives offsite waste:

Treatment facility:

Source Type: Implementer

Source Type: Notification

Notification date: 07/07/2010

Incinerator:

Transporter:

Contact Phone: 212-922-77

Contact Phone: 212-787-334

Contact Info Date: 01/03/2011

Contact Info Date: 11/26/2012

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 450 | POUNDS | GENERATED | 2010 | | |

Map Identification Number 400



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CON EDISON

FO 440 COLUMBUS AVE NO 81 ST

CON EDISON SERVICE BOX: 51940

440 COLUMBUS AVE IN FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004322335

TT-Id: 740A-0093-763

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 205 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Storer:

Contact Name: THOMAS TEELING

Contact Name: THOMAS TEELING

Receives offsite waste:

Treatment facility:

Source Type: Emergency

Source Type: Implementer

Notification date: None Given

Incinerator:

Transporter:

Contact Phone: 212-460-3770

Contact Phone: 212-460-3770

Contact Info Date: 06/23/2013

Contact Info Date: 07/23/2013

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 250 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 401  **NYSDEC Name:** CON EDISON
NYSDEC Address: FO 446 COLUMBUS AVE NEW YORK, NY 10024
Facility Id: NYP004771267
 TT-Id: 740A-0137-341

MAP LOCATION INFORMATION
 Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 205 feet to the NNE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 402  **NYSDEC Name:** CON EDISON
NYSDEC Address: 108 W 81 ST NEW YORK, NY 10024
Facility Id: NYP004665659
 TT-Id: 740A-0121-143

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 218 feet to the N

ADDRESS CHANGE INFORMATION
 Revised street: 108 W 81ST ST
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 403



NYSDEC Name:

NYSDEC Address:
 EPA (RCRA) Name:
 EPA (RCRA) Address:

CON EDISON

FO 108 W 81 ST EO AMSTERDAM AVE
 CON EDISON SERVICE BOX: 14408
 108 W 81ST ST FRONT OF

NEW YORK, NY 10024
 NEW YORK, NY 10024

Facility Id: NYP004322806

TT-Id: 740A-0093-785

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 224 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:
 Storer: Treatment facility:

Notification date: None Given
 Incinerator:
 Transporter:

Contact Name: THOMAS TEELING
 Contact Name: THOMAS TEELING
 Source Type: Emergency
 Source Type: Implementer

Contact Phone: 212-460-3770
 Contact Phone: 212-460-3770
 Contact Info Date: 06/25/2013
 Contact Info Date: 07/25/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 404



NYSDEC Name:

NYSDEC Address:

CON EDISON

442 COLUMBUS AVE
SB 51934

NEW YORK, NY 10024

Facility Id: NYP004771382

TT-Id: 740A-0137-005

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 226 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 405



NYSDEC Name:

NYSDEC Address:

CONSOLIDATED EDISON

104 WEST 80 STREET

NEW YORK, NY 10020

Facility Id: NYP004177630

TT-Id: 740A-0067-362

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 230 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: 104 W 80TH ST
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 406  **NYSDEC Name:** **CONSOLIDATED EDISON** **Facility Id:** **NYP044177630**
NYSDEC Address: 104 WEST 80 STREET MANHATTAN, NY 10020 **TT-Id:** 740A-0067-546

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 230 feet to the NW

ADDRESS CHANGE INFORMATION
 Revised street: 104 W 80TH ST
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|

NONE No hazardous waste activity reported by NYS up to 4/22/2016.

Map Identification Number 407  **NYSDEC Name:** **RUDIN MGMT CO /25 WEST 81 STREET** **Facility Id:** **NYD987038908**
NYSDEC Address: 25 WEST 81 STREET NEW YORK, NY 10024 **TT-Id:** 740A-0026-228
EPA (RCRA) Name: 25 WEST 81ST STREET
EPA (RCRA) Address: 25 W 81ST ST APT 16E NEW YORK, NY 100246023

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 245 feet to the ENE

ADDRESS CHANGE INFORMATION
 Revised street: 25 W 81ST ST
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN
 Land Disposal: Receives offsite waste:
 Storer: Treatment facility:
 Contact Name: RICHARD CONCANNON Source Type: Notification

Notification date: 08/09/1993
 Incinerator:
 Transporter:
 Contact Phone: 212-644-8522 Contact Info Date: 08/09/1993

Historically listed as the following USEPA RCRA Generator Size(s) as well:
 SMALL QUANTITY GENERATOR

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|--|--------------|-------------|------------------|------|-------------------------|------|
| D001 | Solid waste that exhibits the characteristic of ignitability | 400 | POUNDS | GENERATED | 2007 | | |

Map Identification Number 408



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON

FO 118 W 79 ST EO AMSTERDAM AVE
CON EDISON SERVICE BOX: 14141
118-120 W 79TH ST & AMSTERDAM AVE
FRONT OF

NEW YORK, NY 10024
NEW YORK, NY 10024

Facility Id: NYP004322632

TT-Id: 740A-0093-775

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
Approximate distance from property: 246 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:
Storer: Treatment facility:

Contact Name: THOMAS TEELING Source Type: Emergency
Contact Name: THOMAS TEELING Source Type: Implementer

Notification date: None Given

Incinerator:
Transporter:

Contact Phone: 212-460-3770 Contact Info Date: 06/24/2013
Contact Phone: 212-460-3770 Contact Info Date: 07/24/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1500 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 409



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON

FO 117 W 79 ST EO AMSTERDAM AVE
CON EDISON SERVICE BOX: 14132
117 W 79TH ST & AMSTERDAM AVE
FRONT OF

NEW YORK, NY 10024
NEW YORK, NY 10024

Facility Id: NYP004322467

TT-Id: 740A-0093-770

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
Approximate distance from property: 251 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 06/24/2013
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 07/24/2013

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 410  **NYSDEC Name: CON EDISON** **Facility Id: NYP004321824**
 NYSDEC Address: FO 343 COLUMBUS AVE NO 76 ST NEW YORK, NY 10023 TT-Id: 740A-0093-754
 EPA (RCRA) Name: CON EDISON SERVICE BOX: 51910
 EPA (RCRA) Address: 343 76TH ST & COLUMBUS AVE FRONT NEW YORK, NY 10023
 OF

MAP LOCATION INFORMATION
 Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 258 feet to the SW

ADDRESS CHANGE INFORMATION
 Revised street: 343 COLUMBUS AVE
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 06/20/2013
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 07/20/2013

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 411



NYSDEC Name:
NYSDEC Address:

CON EDISON
OPP 341 COLUMBUS AVE & 76 ST
SB 51904

NEW YORK, NY 10023

Facility Id: NYP004748158
TT-Id: 740A-0131-704

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
Approximate distance from property: 259 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 412



NYSDEC Name:
NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CONSOLIDATED EDISON
345 COLUMBUS AVE
CON EDISON
345 COLUMBUS AVE & W 78TH ST

MANHATTAN, NY 10020
NEW YORK, NY 10024

Facility Id: NYP004199287
TT-Id: 740A-0072-064

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 260 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA Type: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

Notification date: None Given

Land Disposal: Receives offsite waste:

Incinerator:

Storer: Treatment facility:

Transporter:

Contact Name: DENNIS MICHAELIDES Source Type: Emergency

Contact Phone: 718-204-4297 Contact Info Date: 11/06/2009

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 750 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 413



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON

FO 112 W 81 ST EO AMSTERDAM AVE
CON EDISON SERVICE BOX: 14407
112 W 81ST ST & AMSTERDAM AVE
FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004322756

TT-Id: 740A-0093-783

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
Approximate distance from property: 265 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:
Storer: Treatment facility:

Notification date: None Given

Incinerator:
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/25/2013
Contact Phone: 212-460-3770 Contact Info Date: 07/25/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 414



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CONSOLIDATED EDISON

115 W 77TH ST
CON EDISON
115 W 77TH ST W OF COLUMBUS AVE

NEW YORK, NY

NEW YORK, NY 10024

Facility Id: NYP004165833

TT-Id: 740A-0066-520

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 267 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA Type: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

Land Disposal: Receives offsite waste:
Storer: Treatment facility:

Notification date: None Given

Incinerator:
Transporter:

Contact Name: NEIL SKOW Source Type: Emergency

Contact Phone: 718-204-4249 Contact Info Date: 04/03/2009

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 150 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 415**NYSDEC Name:**

NYSDEC Address:

CON EDISON113 W 78 ST
SB13996

NEW YORK, NY 10024

Facility Id: NYP004724308

TT-Id: 740A-0131-485

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 291 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: 113 W 78TH ST

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 416**NYSDEC Name:**

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CON EDISON

FO 114 W 78 ST EO AMSTERDAM AVE

CON EDISON SERVICE BOX: 14007

114 W 78TH ST & AMSTERDAM AVE

FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004321931

TT-Id: 740A-0093-758

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 299 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 06/20/2013
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 07/20/2013

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 417  **NYSDEC Name:** CON ED **Facility Id:** NYP004762563
 NYSDEC Address: 340 COLUMBUS AVE NEW YORK, NY 10024 TT-Id: 740A-0136-959
 SB 51804

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 325 feet to the SW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 418  **NYSDEC Name:** CON ED **Facility Id:** NYP004776233
 NYSDEC Address: 340 COLUMBUS AVE NEW YORK, NY 10023 TT-Id: 740A-0137-045
 SB 51904

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 325 feet to the SW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 419



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

NYC DEPT OF EDUCATION – I S 44M

100 W 77TH ST

NYC DEPT OF EDUCATION – I S 44M

100 W 77TH ST

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYR000214569

TT-Id: 740A-0130-738

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 325 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA Type: SMALL QUANTITY GENERATOR

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: 10/21/2014

Incinerator:

Transporter:

Contact Name: ALEXANDER LEMPERT

Source Type: Notification

Contact Phone: 718-742-8501

Contact Info Date: 10/21/2014

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|---|---|--------------|-------------|------------------|------|-------------------------|-----------------------|
| B007 | Other PCB Wastes including contaminated soil, solids, sludges, clothing, etc. | 1165 | KILOGRAMS | GENERATED | 2015 | | |
| More than one waste code was reported for the following waste amount: | | 9 | KILOGRAMS | GENERATED | 2014 | | |
| B007 | Other PCB Wastes including contaminated soil, solids, sludges, clothing, etc. | | | | | | |
| B002 | Petroleum oil or other liquid containing 50 ppm < PCBs < 500 ppm | | | | | | |

Map Identification Number 420



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON

129 W 80TH ST & AMSTERDAM AV
CON EDISON SERVICE BOX: 14256
129 W 80TH ST & AMSTERDAM AVE

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004414678

TT-Id: 740A-0101-723

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 332 feet to the NNW

ADDRESS CHANGE INFORMATION

Revised street: 129 W 80TH ST
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:

Storer: Treatment facility:

Contact Name: THOMAS TEELING

Contact Name: THOMAS TEELING

Source Type: Emergency

Source Type: Implementer

Notification date: None Given

Incinerator:

Transporter:

Contact Phone: 212-460-3770

Contact Phone: 212-460-3770

Contact Info Date: 01/08/2014

Contact Info Date: 02/08/2014

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 100 | GALLONS | GENERATED | 2014 | | |

Map Identification Number 421



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON

W 82 ST LO COLUMBUS AVE
CON EDISON SERVICE BOX: 14561
W 82NS ST & COLUMBUS AVE

NEW YORK, NY 10021

NEW YORK, NY 10024

Facility Id: NYP004323143

TT-Id: 740A-0095-414

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
Approximate distance from property: 335 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: W 82ND ST / COLUMBUS AVE
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:

Storer: Treatment facility:

Contact Name: THOMAS TEELING

Contact Name: THOMAS TEELING

Source Type: Emergency

Source Type: Implementer

Notification date: None Given

Incinerator:

Transporter:

Contact Phone: 212-460-3770

Contact Phone: 212-460-3770

Contact Info Date: 06/26/2013

Contact Info Date: 07/26/2013

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 422  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004427522
 NYSDEC Address: 468 82ND ST & COLUMBUS AVE NEW YORK, NY 10028 TT-Id: 740A-0103-019
 EPA (RCRA) Name: CON EDISON SERVICE BOX: 51949
 EPA (RCRA) Address: 468 82ND ST & COLUMBUS AVE NEW YORK, NY 10028

MAP LOCATION INFORMATION
 Site location mapped by: MANUAL MAPPING (4)
 Approximate distance from property: 335 feet to the NNE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 01/27/2014
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 02/27/2014

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 423  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004657276
 NYSDEC Address: W 82 ST & COLUMBUS AV NEW YORK, NY 10024 TT-Id: 740A-0119-505
 SB14574

MAP LOCATION INFORMATION
 Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 335 feet to the NNE

ADDRESS CHANGE INFORMATION
 Revised street: W 82ND ST / COLUMBUS AVE
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 424



NYSDEC Name:
NYSDEC Address:

CON EDISON
N/E/C 82 ST & COLUMBUS AVE
SB51951

NEW YORK, NY 10024

Facility Id: NYP004657888
TT-Id: 740A-0123-549

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 335 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: W 82ND ST / COLUMBUS AVE

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1500 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 425



NYSDEC Name:
NYSDEC Address:

CONSOLIDATED EDISON
F/O 43 W 76 E/O COLUMBUS AVE

NEW YORK, NY 10003

Facility Id: NYP004255352
TT-Id: 740A-0082-210

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 336 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: IFO 43 W 76TH ST

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2012 | | |

Map Identification Number 426



NYSDEC Name:

NYSDEC Address:

CONSOLIDATED EDISON

76 ST & COLUMBUS AVE V6001

NEW YORK, NY 10021

Facility Id: NYP004124798

TT-Id: 740A-0029-220

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 337 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: W 76TH ST / COLUMBUS AVE

Revised zip code: 10023

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|--|--------------|-------------|------------------|------|-------------------------|-----------------------|
| B002 | Petroleum oil or other liquid containing 50 ppm < PCBs < 500 ppm | 1127 | KILOGRAMS | GENERATED | 2004 | | |

Map Identification Number 427



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CON EDISON

NWC 76 ST & COLUMBUS AVE

CON EDISON SERVICE BOX: 51903

COLUMBUS AVE & 76TH ST NW COR

NEW YORK, NY 10023

NEW YORK, NY 10023

Facility Id: NYP004321915

TT-Id: 740A-0096-530

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 337 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: W 76TH ST / COLUMBUS AVE

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 06/20/2013
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 07/20/2013

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 428  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004628343
NYSDEC Address: W 76 ST & COLUMBUS AVE NEW YORK, NY 10024 TT-Id: 740A-0119-401
 SB 13703

MAP LOCATION INFORMATION
 Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 337 feet to the SW

ADDRESS CHANGE INFORMATION
 Revised street: W 76TH ST / COLUMBUS AVE
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 429  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004747747
NYSDEC Address: W 76 ST & COLUMBUS AV NEW YORK, NY 10023 TT-Id: 740A-0130-957
 SB51903

MAP LOCATION INFORMATION
 Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 337 feet to the SW

ADDRESS CHANGE INFORMATION
 Revised street: W 76TH ST / COLUMBUS AVE
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 430



NYSDEC Name:
NYSDEC Address:

CON EDISON
76TH ST & COLUMBUS AVE
MH 51972

NEW YORK, NY 10023

Facility Id: NYP004748166
TT-Id: 740A-0132-524

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
Approximate distance from property: 337 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: W 76TH ST / COLUMBUS AVE
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 2000 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 431



NYSDEC Name:
NYSDEC Address:

CON ED
N/W/C 76 ST & COLUMBUS AVE
SB 51903

NEW YORK, NY 10023

Facility Id: NYP004776241
TT-Id: 740A-0137-686

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
Approximate distance from property: 337 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: W 76TH ST / COLUMBUS AVE
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 432



NYSDEC Name:
NYSDEC Address:

CON EDISON
120-28 W 79 & COLUMBUS AVE
SB 14140

NEW YORK, NY 10024

Facility Id: NYP004616223
TT-Id: 740A-0122-578

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 339 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: 120-128 W 79TH ST
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 433



NYSDEC Name:
NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON
FO 120 W 79 ST EO AMSTERDAM AVE
CON EDISON SERVICE BOX: 14140
120-28 W 79TH ST & AMSTERDAM AVE
FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004322624
TT-Id: 740A-0093-774

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
Approximate distance from property: 347 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 06/24/2013
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 07/24/2013

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 434  **NYSDEC Name:** CONSOLIDATED EDISON **Facility Id:** NYP004177648
NYSDEC Address: 122 WEST 81 STREET NEW YORK, NY 10020 **TT-Id:** 740A-0067-363

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 362 feet to the NNW

ADDRESS CHANGE INFORMATION
 Revised street: 122 W 81ST ST
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 2000 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 435  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004636387
NYSDEC Address: 20 WEST 82ND STREET NEW YORK, NY 10024 **TT-Id:** 740A-0122-579

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 374 feet to the ENE

ADDRESS CHANGE INFORMATION
 Revised street: 20 W 82ND ST
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 4500 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 436



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CONED

101 W 82 STREET AND COLUMBUS A
VE

CON EDISON – MANHOLE 63484

101 W 82 STREET AND COLUMBUS A
VE

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004177796

TT-Id: 740A-0067-372

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 386 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: 101 W 82ND ST

Revised zip code: 10001

US EPA RCRA Type: LARGE QUANTITY GENERATOR

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: None Given

Incinerator:

Transporter:

Contact Name: FRANKLYN MURRAY

Source Type: Annual/Biennial Report update with Notification

Contact Phone: 212-460-2808

Contact Info Date: 03/23/2010

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 10000 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 437



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CONSOLIDATED EDISON

25 W 76TH ST

CON EDISON

25 W 76TH ST E OF COLUMBUS AVE

NEW YORK, NY

NEW YORK, NY 10023

Facility Id: NYP004169363

TT-Id: 740A-0075-858

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 388 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA Type: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Contact Name: TIMOTHY REGAN

Source Type: Emergency

Notification date: None Given

Incinerator:

Transporter:

Contact Phone: 917-416-5436 Contact Info Date: 05/11/2009

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 75 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 438



NYSDEC Name:

NYSDEC Address:

CON EDISON

25 W 76 ST

SB 13723

NEW YORK, NY 10023

Facility Id: NYP004629028

TT-Id: 740A-0120-601

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 388 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: 25 W 76TH ST

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 439



NYSDEC Name:
NYSDEC Address:

CON EDISON
55 W 82 ST & COLUMBUS AVE
SB14557

NEW YORK, NY 10024

Facility Id: NYP004657466
TT-Id: 740A-0121-079

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 406 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: 55 W 82ND ST
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 440



NYSDEC Name:
NYSDEC Address:

CON EDISON
127 W 78TH ST
SB 13914

NEW YORK, NY 10024

Facility Id: NYP004831182
TT-Id: 740A-0142-422

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 407 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 441



NYSDEC Name:
NYSDEC Address:

CON EDISON
51 W 82 & COLUMBUS AVE
SB14558

NEW YORK, NY 10024

Facility Id: NYP004657474
TT-Id: 740A-0122-580

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 407 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: 51 W 82ND ST
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 442



NYSDEC Name:
NYSDEC Address:

CON EDISON
61 W 82 ST & COLUMBUS AVE
SB14556

NEW YORK, NY 10024

Facility Id: NYP004657482
TT-Id: 740A-0121-080

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 407 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: 61 W 82ND ST
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 443



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CON EDISON

F/O 339 COLUMBUS AVE

SERVICE BOX # 51900

CON EDISON SERVICE BOX: 51900

COLUMBUS AVE N OF 75TH ST

NEW YORK, NY 10029

NEW YORK, NY 10023

Facility Id: NYP004295259

TT-Id: 740A-0086-663

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 416 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: IFO 339 COLUMBUS AVE

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: None Given

Incinerator:

Transporter:

Contact Name: JOSE MONTALVO

Source Type: Emergency

Contact Phone: 212-427-1331

Contact Info Date: 03/21/2013

Contact Name: JOSE MONTALVO

Source Type: Implementer

Contact Phone: 212-427-1331

Contact Info Date: 04/21/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 444



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CON EDISON

FO 338 COLUMBUS AVE NO 75 ST

CON EDISON SERVICE BOX: 51897

338 COLUMBUS AVE & 75TH ST FRONT OF

NEW YORK, NY 10023

NEW YORK, NY 10023

Facility Id: NYP004322343

TT-Id: 740A-0093-764

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 423 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: None Given

Incinerator:

Transporter:

Contact Name: THOMAS TEELING

Source Type: Emergency

Contact Phone: 212-460-3770

Contact Info Date: 06/23/2013

Contact Name: THOMAS TEELING

Source Type: Implementer

Contact Phone: 212-460-3770

Contact Info Date: 07/23/2013

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 250 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 445  **NYSDEC Name:** CON EDISON
NYSDEC Address: OPP SIDE 116 W 76 ST NEW YORK, NY 10024
Facility Id: NYP004628335
 TT-Id: 740A-0122-573

MAP LOCATION INFORMATION
 Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 445 feet to the SW

ADDRESS CHANGE INFORMATION
 Revised street: OPP 116 W 76TH ST
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 446  **NYSDEC Name:** CON EDISON
NYSDEC Address: 132 W 81ST ST NEW YORK, NY 10024
Facility Id: NYP004789236
 TT-Id: 740A-0137-147

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 456 feet to the NNW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 447



NYSDEC Name:

NYSDEC Address:

CON EDISON

16-18 W 82 ST & COLUMBUS AV
SB14573

NEW YORK, NY 10024

Facility Id: NYP004657292

TT-Id: 740A-0121-077

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)

Approximate distance from property: 461 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 448



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CONSOLIDATED EDISON - SERV BOX 13735

F/O 26-28 W 76TH ST 7 COLUMBUS AVE

CON EDISON SERVICE BOX 13735

26-28 W 76TH ST E OF COLUMBUS AVE

NEW YORK, NY 10023

NEW YORK, NY 10023

Facility Id: NYP004250080

TT-Id: 740A-0081-111

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 463 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: IFO 26-28 W 76TH ST

Revised zip code: NO CHANGE

Special Note(s): The New York State Department of Environmental Conservation and the U. S. Environmental Protection Agency have reported different locations for this hazardous waste identification number. Available information for both locations is summarized below.

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: JOSE MONTALVO Source Type: Emergency Contact Phone: 212-427-1331 Contact Info Date: 03/20/2012
 Contact Name: JOSE MONTALVO Source Type: Implementer Contact Phone: 212-427-1331 Contact Info Date: 04/19/2012

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2012 | | |

Map Identification Number 449  **NYSDEC Name: CONSOLIDATED EDISON** **Facility Id: NYP004190013**
 NYSDEC Address: 29 WEST 82 STREET NEW YORK, NY 10020 TT-Id: 740A-0067-486
 EPA (RCRA) Name: CON EDISON
 EPA (RCRA) Address: 29 W 82ND ST & BROADWAY NEW YORK, NY 10024

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 464 feet to the NE

ADDRESS CHANGE INFORMATION
 Revised street: 29 W 82ND ST
 Revised zip code: NO CHANGE

US EPA RCRA Type: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR Notification date: None Given
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: MICHAEL BETO Source Type: Emergency Contact Phone: 917-337-5519 Contact Info Date: 08/10/2009

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1500 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 450



NYSDEC Name:
NYSDEC Address:

CON EDISON
29 W 82ND ST
SB 14561

MANHATTAN, NY 10024

Facility Id: NYP004756003
TT-Id: 740A-0130-693

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 464 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 451



NYSDEC Name:
NYSDEC Address:

CON EDISON
111 W 82 ST
SB4541

NEW YORK, NY 10024

Facility Id: NYP004665790
TT-Id: 740A-0121-151

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 471 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: 111 W 82ND ST
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 2000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 452  **NYSDEC Name:** CONSOLIDATED EDISON **Facility Id:** NYP004177572
NYSDEC Address: 135 W. 78 ST NEW YORK, NY **TT-Id:** 740A-0067-359

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 478 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: 135 W 78TH ST
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 453  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004323036
NYSDEC Address: FO 135 78 ST EO AMSTERDAM AVE NEW YORK, NY 10024 **TT-Id:** 740A-0095-446
EPA (RCRA) Name: CON EDISON SERVICE BOX: 13993
EPA (RCRA) Address: 135 W 78TH ST & AMSTERDAM AVE NEW YORK, NY 10024
 FRONT OF

MAP LOCATION INFORMATION
 Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 481 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: IFO 135 W 78TH ST
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 06/26/2013
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 07/26/2013

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 2000 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 454



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CON EDISON

130 W 80TH ST
SB14262

CON EDISON SERVICE BOX: 14262

130 W 80TH ST FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004461216

TT-Id: 740A-0109-778

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 483 feet to the NW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: None Given

Incinerator:

Transporter:

Contact Name: THOMAS TEELING

Source Type: Emergency

Contact Phone: 212-460-3770

Contact Info Date: 03/07/2014

Contact Name: THOMAS TEELING

Source Type: Implementer

Contact Phone: 212-460-3770

Contact Info Date: 04/07/2014

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 455



NYSDEC Name:

NYSDEC Address:

CONSOLIDATED EDISON

W 78 ST BETW COLUMBUS/AMSTERDAM
OPPOSITE 137

NEW YORK, NY

Facility Id: NYP004187662

TT-Id: 740A-0067-120

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (4)

Approximate distance from property: 489 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1500 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 456  **NYSDEC Name:** CONSOLIDATED EDISON **Facility Id:** NYP004177911
NYSDEC Address: 23 W 82 ST NEW YORK, NY **TT-Id:** 740A-0067-375

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 496 feet to the NE

ADDRESS CHANGE INFORMATION
 Revised street: 23 W 82ND ST
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 457  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004735023
NYSDEC Address: 21-23 W 82 ST NEW YORK, NY 10024 **TT-Id:** 740A-0131-586
 SB 14562

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 496 feet to the NE

ADDRESS CHANGE INFORMATION
 Revised street: 21 W 82ND ST
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 458



NYSDEC Name:

NYSDEC Address:
 EPA (RCRA) Name:
 EPA (RCRA) Address:

CON EDISON

FO 140 N 79 ST EO AMSTERDAM AVE
 CON EDISON SERVICE BOX: 14126
 145 W 79TH ST & AMSTERDAM AVE
 FRONT OF

NEW YORK, NY 10024
 NEW YORK, NY 10024

Facility Id: NYP004322954

TT-Id: 740A-0095-466

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 514 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: IFO 140 W 79TH ST
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:
 Storer: Treatment facility:

Notification date: None Given

Incinerator:
 Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency
 Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/25/2013
 Contact Phone: 212-460-3770 Contact Info Date: 07/25/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 250 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 459



EPA (RCRA) Name:

EPA (RCRA) Address:
 NYSDEC Name:
 NYSDEC Address:

CON EDISON SERVICE BOX 13735

26-28 W 76TH ST E OF COLUMBUS AVE
 CONSOLIDATED EDISON - SERV BOX 13735
 F/O 26-28 W 76TH ST 7 COLUMBUS AVE

NEW YORK, NY 10023
 NEW YORK, NY 10023

Facility Id: NYP004250080

TT-Id: 740A-0081-220

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)
 Approximate distance from property: 516 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

Special Note(s): The New York State Department of Environmental Conservation and the U. S. Environmental Protection Agency have reported different locations for this hazardous waste identification number. Available information for both locations is summarized below.

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: JOSE MONTALVO Source Type: Emergency Contact Phone: 212-427-1331 Contact Info Date: 03/20/2012
 Contact Name: JOSE MONTALVO Source Type: Implementer Contact Phone: 212-427-1331 Contact Info Date: 04/19/2012

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2012 | | |

Map Identification Number 460  **NYSDEC Name:** 6-16 WEST 77TH STREET CORP **Facility Id:** NYR000066894
 NYSDEC Address: 6-16 W 77TH ST NEW YORK, NY 10024 TT-Id: 740A-0024-511
 EPA (RCRA) Name: 6-16 WEST 77TH STREET CORP
 EPA (RCRA) Address: 6-16 W 77TH ST NEW YORK, NY 10024

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 518 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: 02/11/1999
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: SCOTT MILLER Source Type: Implementer Contact Phone: 516-867-6016 Contact Info Date: 01/01/2007
 Contact Name: SCOTT J MILLER Source Type: Notification Contact Phone: 516-867-6016 Contact Info Date: 02/11/1999

Historically listed as the following USEPA RCRA Generator Size(s) as well:
 SMALL QUANTITY GENERATOR

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 800 | POUNDS | GENERATED | 1999 | | |

Map Identification Number 461



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CON EDISON

F/O 20TH W 76TH ST
SB13736

CON EDISON SERVICE BOX: 13736

20 W 76TH ST & COLUMBUS AVE

NEW YORK, NY 10023

NEW YORK, NY 10023

Facility Id: NYP004418547

TT-Id: 740A-0104-706

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 524 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: IFO 20 W 76TH ST

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: None Given

Incinerator:

Transporter:

Contact Name: THOMAS TEELING

Source Type: Emergency

Contact Phone: 212-460-3770

Contact Info Date: 01/14/2014

Contact Name: THOMAS TEELING

Source Type: Implementer

Contact Phone: 212-460-3770

Contact Info Date: 02/14/2014

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 300 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 462



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CON EDISON

26 W 76 ST

SERVICE BOX # 13735

NEW YORK, NY 10023

Facility Id: NYP004665758

TT-Id: 740A-0121-148

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 526 feet to the S

ADDRESS CHANGE INFORMATION

Revised street: 26 W 76TH ST

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 463



NYSDEC Name:

NYSDEC Address:
 EPA (RCRA) Name:
 EPA (RCRA) Address:

CON EDISON

FO 9-11 W 81 ST EO COLUMBUS AVE
 CON EDISON SERVICE BOX: 14420
 9-11 W 81ST ST & COLUMBUS AVE FRONT
 OF

NEW YORK, NY 10024
 NEW YORK, NY 10024

Facility Id: NYP004322947

TT-Id: 740A-0095-479

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 529 feet to the E

ADDRESS CHANGE INFORMATION

Revised street: IFO 9-11 W 81ST ST
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:
 Storer: Treatment facility:

Contact Name: THOMAS TEELING Source Type: Emergency
 Contact Name: THOMAS TEELING Source Type: Implementer

Notification date: None Given

Incinerator:
 Transporter:

Contact Phone: 212-460-3770 Contact Info Date: 06/25/2013
 Contact Phone: 212-460-3770 Contact Info Date: 07/25/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 464



NYSDEC Name:

NYSDEC Address:
 EPA (RCRA) Name:
 EPA (RCRA) Address:

CON EDISON

47-49 75TH ST & CPW
 SB13556
 CON EDISON SERVICE BOX: 13556
 47-49 75TH ST & CENTRAL PARK W

NEW YORK, NY 10023
 NEW YORK, NY 10023

Facility Id: NYP004415584

TT-Id: 740A-0102-987

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)
 Approximate distance from property: 531 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: 47-49 W 75TH ST / CENTRAL PARK W
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 01/09/2014
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 02/09/2014

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 200 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 465  **NYSDEC Name: CON EDISON** **Facility Id: NYP004322962**
 NYSDEC Address: FO 145 W 79 ST & AMSTERDAM AVE NEW YORK, NY 10024 TT-Id: 740A-0093-786
 EPA (RCRA) Name: CON EDISON SERVICE BOX: 14127
 EPA (RCRA) Address: 145 W 79TH ST & AMSTERDAM AVE NEW YORK, NY 10024
 FRONT OF

MAP LOCATION INFORMATION
 Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 534 feet to the WNW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN Notification date: None Given
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: THOMAS TEELING Source Type: Emergency Contact Phone: 212-460-3770 Contact Info Date: 06/25/2013
 Contact Name: THOMAS TEELING Source Type: Implementer Contact Phone: 212-460-3770 Contact Info Date: 07/25/2013

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 466  **NYSDEC Name:** **CONSOLIDATED EDISON** **Facility Id:** **NYP004177580**
NYSDEC Address: **OPP 141 W. 78ST** **NEW YORK, NY** **TT-Id:** **740A-0068-239**

MAP LOCATION INFORMATION
 Site location mapped by: **MANUAL MAPPING (3)**
 Approximate distance from property: **538 feet to the W**

ADDRESS CHANGE INFORMATION
 Revised street: **OPP 141 W 78TH ST**
 Revised zip code: **NO CHANGE**

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 467  **NYSDEC Name:** **CONSOLIDATED EDISON** **Facility Id:** **NYP004188868**
NYSDEC Address: **43 WEST 75TH ST** **NEW YORK, NY 10020** **TT-Id:** **740A-0066-937**
EPA (RCRA) Name: **CON EDISON**
EPA (RCRA) Address: **W 75TH ST & COLUMBUS AVE** **NEW YORK, NY 10023**

MAP LOCATION INFORMATION
 Site location mapped by: **PARCEL MAPPING (1)**
 Approximate distance from property: **545 feet to the SSW**

ADDRESS CHANGE INFORMATION
 Revised street: **NO CHANGE**
 Revised zip code: **NO CHANGE**

Special Note(s): The New York State Department of Environmental Conservation and the U. S. Environmental Protection Agency have reported different locations for this hazardous waste identification number. Available information for both locations is summarized below.

US EPA RCRA Type: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR** Notification date: **None Given**
 Land Disposal: **Receives offsite waste:** Incinerator:
 Storer: **Treatment facility:** Transporter:
 Contact Name: **ANTONIO DELGADO** Source Type: **Emergency** Contact Phone: **212-580-8383** Contact Info Date: **07/30/2009**

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1500 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 468  **NYSDEC Name:** CONSOLIDATED EDISON **Facility Id:** NYP004161949
NYSDEC Address: 78TH & 8TH AVE NEW YORK, NY 10003 **TT-Id:** 740A-0065-096
EPA (RCRA) Name: CON EDISON
EPA (RCRA) Address: 78 8TH AVE NEW YORK, NY 10023

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (5)
 Approximate distance from property: 548 feet to the SE

ADDRESS CHANGE INFORMATION

Revised street: W 78TH ST / 8TH AVE
 Revised zip code: NO CHANGE

Special Note(s): The New York State Department of Environmental Conservation and the U. S. Environmental Protection Agency have reported different locations for this hazardous waste identification number. Available information for both locations is summarized below.

US EPA RCRA Type: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR **Notification date:** None Given
Land Disposal: Receives offsite waste: **Incinerator:**
Storer: Treatment facility: **Transporter:**
Contact Name: DAVID DUKE **Source Type:** Emergency **Contact Phone:** 917-559-8971 **Contact Info Date:** 10/21/2008

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 125 | GALLONS | GENERATED | 2008 | | |

Map Identification Number 469  **NYSDEC Name:** CONSOLIDATED EDISON **Facility Id:** NYP004166534
NYSDEC Address: 41 W 75TH ST NEW YORK, NY 10009 **TT-Id:** 740A-0066-551
EPA (RCRA) Name: CON EDISON
EPA (RCRA) Address: 41 W 75TH ST NEW YORK, NY 10023

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 551 feet to the SSW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
 Revised zip code: NO CHANGE

US EPA RCRA Type: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR** Notification date: None Given
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: **TIMOTHY REGAN** Source Type: Emergency Contact Phone: 917-416-5436 Contact Info Date: 04/08/2009

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 400 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 470  **NYSDEC Name: CON EDISON** **Facility Id: NYP004842635**
 NYSDEC Address: 140 W 80TH ST NEW YORK, NY TT-Id: 740A-0142-561
 SB 14261

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 558 feet to the NW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 471  **NYSDEC Name: CON ED** **Facility Id: NYP004853350**
 NYSDEC Address: 140 W 80TH ST NEW YORK, NY 10024 TT-Id: 740A-0142-745
 SB 14261

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 558 feet to the NW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 472



NYSDEC Name:
NYSDEC Address:

CON EDISON
34 W 83RD ST
SB14674

NEW YORK, NY 10024

Facility Id: NYP004652006
TT-Id: 740A-0119-120

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 563 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 473



NYSDEC Name:
NYSDEC Address:

CON EDISON
143-144 W 78 ST
SB 14003

NEW YORK, NY 10024

Facility Id: NYP004624887
TT-Id: 740A-0122-574

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (4)
Approximate distance from property: 563 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: 143-144 W 78TH ST
Revised zip code: NO CHANGE

This facility has been deleted from the reported data. Data reflects last reported information.

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|

NONE No hazardous waste activity reported by NYS up to 4/22/2016.

Map Identification Number 474



NYSDEC Name:

NYSDEC Address:

CON EDISON

143-144 W 78 ST
SB 14003

NEW YORK, NY 10024

Facility Id: NYP004629697

TT-Id: 740A-0122-576

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (4)

Approximate distance from property: 563 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: 143-144 W 78TH ST

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|

| | | | | | | | |
|------|------|------|--------|-----------|------|--|--|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |
|------|------|------|--------|-----------|------|--|--|

Map Identification Number 475



NYSDEC Name:

NYSDEC Address:

CONSOLIDATED EDISON

211 CENTRAL PARK WEST

NEW YORK, NY 10024

Facility Id: NYP000927871

TT-Id: 740A-0024-497

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)

Approximate distance from property: 567 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|--|--------------|-------------|------------------|------|-------------------------|-----------------------|
| B003 | Petroleum oil or other liquid containing 500 ppm or greater of PCBs. | 1172 | KILOGRAMS | GENERATED | 1996 | | |

Map Identification Number 476



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CONSOLIDATED EDISON

V8223-CENTRAL PARK WEST

V # 8223

211 CENTRAL PARK WEST

NEW YORK, NY

NEW YORK CITY, NY 10024

Facility Id: NYP004041976

TT-Id: 740A-0026-576

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)

Approximate distance from property: 567 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: 211 CENTRAL PARK WEST

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: None Given

Incinerator:

Transporter:

Contact Name: ANTHONY DRUMMINGS

Source Type: Implementer

Contact Phone: 212-460-3770

Contact Info Date: 01/03/2001

Contact Name: ANTHONY DRUMMINGS

Source Type: Annual/Biennial Report

Contact Phone: 212-460-3770

Contact Info Date: 01/01/2001

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|---------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| B008 | Unknown waste type. | 1182 | KILOGRAMS | GENERATED | 1999 | | |

Map Identification Number 477  **NYSDEC Name:** **CONSOLIDATED EDISON** **Facility Id: NYP004057626**
NYSDEC Address: V8223-211 CENTRAL PARK W NEW YORK, NY TT-Id: 740A-0024-600

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (2)
 Approximate distance from property: 567 feet to the ENE

ADDRESS CHANGE INFORMATION
 Revised street: 211 CENTRAL PARK WEST
 Revised zip code: 10024

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|---|--------------|-------------|------------------|------|-------------------------|------|
| B002 | Petroleum oil or other liquid containing 50 ppm < PCBs < 500 ppm | 1200 | KILOGRAMS | GENERATED | 2000 | | |
| B007 | Other PCB Wastes including contaminated soil, solids, sludges, clothing, etc. | 864 | KILOGRAMS | GENERATED | 2000 | | |

Map Identification Number 478  **NYSDEC Name:** **CON EDISON** **Facility Id: NYP004648887**
NYSDEC Address: 219 CENTRAL PARK WEST NEW YORK, NY 10029 TT-Id: 740A-0118-622
 M59218

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (2)
 Approximate distance from property: 567 feet to the ENE

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1500 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 479



NYSDEC Name:
NYSDEC Address:

CON EDISON
98 W 83 ST
SB14675

NEW YORK, NY 10024

Facility Id: NYP004631966
TT-Id: 740A-0119-415

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (4)
Approximate distance from property: 572 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: 98 W 83RD ST
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 480



NYSDEC Name:
NYSDEC Address:

CON EDISON
147-145 W 78 ST
SB 14002

NEW YORK, NY 10024

Facility Id: NYP004629689
TT-Id: 740A-0122-575

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (2)
Approximate distance from property: 587 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: 145-147 W 78TH ST
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 481



NYSDEC Name:
NYSDEC Address:

CON EDISON
148 WEST 77TH STREET

NEW YORK, NY 10024

Facility Id: NYP00466665
TT-Id: 740A-0121-162

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 592 feet to the WSW

ADDRESS CHANGE INFORMATION

Revised street: 148 W 77TH ST
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 3000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 482



NYSDEC Name:
NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON
NEC 83 ST & COLUMBUS AVE
CON EDISON SERVICE BOX: 51615
COLUMBUS AVE & 83RD ST NW COR

NEW YORK, NY 10028

NEW YORK, NY 10028

Facility Id: NYP004323051
TT-Id: 740A-0096-793

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
Approximate distance from property: 600 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: W 83RD ST / COLUMBUS AVE
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:
Storer: Treatment facility:

Notification date: None Given

Incinerator:
Transporter:

Contact Name: THOMAS TEELING
Contact Name: THOMAS TEELING
Source Type: Emergency
Source Type: Implementer

Contact Phone: 212-460-3770
Contact Phone: 212-460-3770
Contact Info Date: 06/26/2013
Contact Info Date: 07/26/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 483



NYSDEC Name:
NYSDEC Address:

CON EDISON
NWC 83 & COLUMBUS AV
V5275

NEW YORK, NY 10024

Facility Id: NYP004748836
TT-Id: 740A-0132-252

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
Approximate distance from property: 600 feet to the NNE

ADDRESS CHANGE INFORMATION

Revised street: W 83RD ST / COLUMBUS AVE
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 2000 | POUNDS | GENERATED | 2015 | | |

Map Identification Number 484



NYSDEC Name:
NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON
W 75TH ST & COLUMBUS AVE
CON EDISON
W 75TH ST & COLUMBUS AVE

NEW YORK, NY 10023

NEW YORK, NY 10023

Facility Id: NYP004186664
TT-Id: 740A-0071-989

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING
Approximate distance from property: 600 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: W 75TH ST / COLUMBUS AVE
Revised zip code: NO CHANGE

US EPA RCRA Type: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

Notification date: None Given

Land Disposal: Receives offsite waste:

Incinerator:

Storer: Treatment facility:

Transporter:

Contact Name: PATRICK HANLEY Source Type: Emergency

Contact Phone: 347-203-1475 Contact Info Date: 07/27/2009

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|---|--------------|-------------|------------------|------|-------------------------|-----------------------|
| NONE | Site reported by US EPA. No hazardous waste activity reported by NYS. | | | | | | |

Map Identification Number 485



EPA (RCRA) Name:

EPA (RCRA) Address:

NYSDEC Name:

NYSDEC Address:

CON EDISON

W 75TH ST & COLUMBUS AVE

CONSOLIDATED EDISON

43 WEST 75TH ST

NEW YORK, NY 10023

NEW YORK, NY 10020

Facility Id: NYP004188868

TT-Id: 740A-0074-747

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 600 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: W 75TH ST / COLUMBUS AVE

Revised zip code: NO CHANGE

Special Note(s): The New York State Department of Environmental Conservation and the U. S. Environmental Protection Agency have reported different locations for this hazardous waste identification number. Available information for both locations is summarized below.

US EPA RCRA Type: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

Notification date: None Given

Land Disposal: Receives offsite waste:

Incinerator:

Storer: Treatment facility:

Transporter:

Contact Name: ANTONIO DELGADO Source Type: Emergency

Contact Phone: 212-580-8383 Contact Info Date: 07/30/2009

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1500 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 486



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CONSOLIDATED EDISON

W 75TH STREET AND COLUMBUS AVE

CON EDISON - SERVICE BOX 13563

W 75TH STREET AND COLUMBUS AVE

NEW YORK, NY 10023

NEW YORK, NY 10023

Facility Id: NYP004191227

TT-Id: 740A-0066-954

MAP LOCATION INFORMATION

Site location mapped by: ADDRESS MATCHING

Approximate distance from property: 600 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: W 75TH ST / COLUMBUS AVE

Revised zip code: 10020

US EPA RCRA Type: LARGE QUANTITY GENERATOR

Notification date: None Given

Land Disposal: Receives offsite waste:

Incinerator:

Storer: Treatment facility:

Transporter:

Contact Name: FRANKLYN MURRAY Source Type: Annual/Biennial Report update with Notification

Contact Phone: 212-460-2808 Contact Info Date: 03/23/2010

Contact Name: ANTHONY BUDA Source Type: Emergency

Contact Phone: 917-440-1809 Contact Info Date: 08/17/2009

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 2500 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 487  **NYSDEC Name:** CONSOLIDATED EDISON **Facility Id:** NYP004253407
NYSDEC Address: S/W/C W 75 ST & COLUMBUS AVE NEW YORK, NY 10023 **TT-Id:** 740A-0082-717

MAP LOCATION INFORMATION
 Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 600 feet to the SW

ADDRESS CHANGE INFORMATION
 Revised street: W 75TH ST / COLUMBUS AVE
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2012 | | |

Map Identification Number 488  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004272118
NYSDEC Address: SWC W 75 & COLUMBUS AVE NEW YORK, NY 10023 **TT-Id:** 740A-0084-281

EPA (RCRA) Name: CON EDISON SERVICE BOX: 30578
EPA (RCRA) Address: W 75TH ST & COLUMBUS AVE SW NEW YORK, NY 10023
 COR

MAP LOCATION INFORMATION
 Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 600 feet to the SW

ADDRESS CHANGE INFORMATION
 Revised street: W 75TH ST / COLUMBUS AVE
 Revised zip code: NO CHANGE

US EPA RCRA Type: **CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR** Notification date: None Given
 Land Disposal: Receives offsite waste: Incinerator:
 Storer: Treatment facility: Transporter:
 Contact Name: **JOSE MONTALVO** Source Type: Emergency Contact Phone: 212-427-1331 Contact Info Date: 10/04/2012

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2012 | | |

Map Identification Number 489  **NYSDEC Name: CON EDISON** **Facility Id: NYP004274387**
 NYSDEC Address: S/W/C W 75 ST & COLUMBUS AVVE NEW YORK, NY 10023 TT-Id: 740A-0084-267

MAP LOCATION INFORMATION
 Site location mapped by: ADDRESS MATCHING
 Approximate distance from property: 600 feet to the SW

ADDRESS CHANGE INFORMATION
 Revised street: W 75TH ST / COLUMBUS AVE
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2012 | | |

Map Identification Number 490  **NYSDEC Name: CONSOLIDATED EDISON** **Facility Id: NYP004177655**
 NYSDEC Address: 146 WEST 80 STREET MANHATTAN, NY 10020 TT-Id: 740A-0067-364

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 617 feet to the NW

ADDRESS CHANGE INFORMATION
 Revised street: 146 W 80TH ST
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 491



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

NYC BOARD OF EDUCATION

160 WEST 78TH STREET
NYC DEPT OF EDUCATION – PS 87M
160 W 78TH ST

NEW YORK, NY 10024
NEW YORK, NY 10024

Facility Id: NYR00009456

TT-Id: 740A-0031-157

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 622 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA Type: SMALL QUANTITY GENERATOR

Land Disposal: Receives offsite waste:
Storer: Treatment facility:

Notification date: 07/27/1995
Incinerator:
Transporter:

Contact Name: ROBERT GUASTA Source Type: Implementer
Contact Name: ALEXANDER LEMPERT Source Type: Notification

Contact Phone: 718-349-5590 Contact Info Date: 01/01/2007
Contact Phone: 718-472-8501 Contact Info Date: 05/14/2013

Historically listed as the following USEPA RCRA Generator Size(s) as well:
CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|---|---|--------------|-------------|------------------|------|-------------------------|-----------------------|
| B007 | Other PCB Wastes including contaminated soil, solids, sludges, clothing, etc. | 75 | KILOGRAMS | GENERATED | 2013 | | |
| More than one waste code was reported for the following waste amount: | | 4 | KILOGRAMS | GENERATED | 2012 | | |
| B002 | Petroleum oil or other liquid containing 50 ppm < PCBs < 500 ppm | | | | | | |
| B007 | Other PCB Wastes including contaminated soil, solids, sludges, clothing, etc. | | | | | | |
| D008 | Lead | 200 | POUNDS | GENERATED | 1995 | | |

Map Identification Number 492



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON

FO 150 W 79 ST & AMSTERDAM AVE
CON EDISON SERVICE BOX: 14134
150-160 W 79TH ST & AMSTERDAM AVE
FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004322970

TT-Id: 740A-0093-787

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
Approximate distance from property: 626 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:
Storer: Treatment facility:

Notification date: None Given

Incinerator:
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/25/2013
Contact Phone: 212-460-3770 Contact Info Date: 07/25/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 250 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 493



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON

FO 150 W 79 ST & AMSTERDAM AVE
CON EDISON SERVICE BOX: 14135
150 W 79TH ST & AMSTERDAM AVE
FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004322996

TT-Id: 740A-0093-789

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
Approximate distance from property: 626 feet to the WNW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:
Storer: Treatment facility:

Notification date: None Given

Incinerator:
Transporter:

Contact Name: THOMAS TEELING Source Type: Emergency
Contact Name: THOMAS TEELING Source Type: Implementer

Contact Phone: 212-460-3770 Contact Info Date: 06/25/2013
Contact Phone: 212-460-3770 Contact Info Date: 07/25/2013

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 250 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 494  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004629713
NYSDEC Address: 151 W 78 ST NEW YORK, NY 10024 **TT-Id:** 740A-0120-612
 SB 14001

MAP LOCATION INFORMATION
 Site location mapped by: PARCEL MAPPING (1)
 Approximate distance from property: 627 feet to the W

ADDRESS CHANGE INFORMATION
 Revised street: 151 W 78TH ST
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:
 Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 495  **NYSDEC Name:** CON EDISON **Facility Id:** NYP004633319
NYSDEC Address: F/O 35 W 75 ST NEW YORK, NY 10023 **TT-Id:** 740A-0120-686
 SB13558

MAP LOCATION INFORMATION
 Site location mapped by: MANUAL MAPPING (3)
 Approximate distance from property: 634 feet to the SSW

ADDRESS CHANGE INFORMATION
 Revised street: NO CHANGE
 Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 496



NYSDEC Name:

NYSDEC Address:

CON EDISON

OPP 5 W 82 ST & COLUMBUS AV
SB14575

NEW YORK, NY 10024

Facility Id: NYP004657243

TT-Id: 740A-0121-076

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 641 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 497



NYSDEC Name:

NYSDEC Address:

CON EDISON

OPP 5 W 82ND ST & COLUMBUS AVE
SB 14576

NEW YORK, NY 10024

Facility Id: NYP004667259

TT-Id: 740A-0121-166

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 641 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 2000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 498



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CON EDISON

FO 152 W 78 ST
SB #14001

CON EDISON SERVICE BOX: 14001

152 W 78TH ST FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004331971

TT-Id: 740A-0093-981

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 646 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Contact Name: RICARDO CARTY

Source Type: Emergency

Contact Name: RICARDO CARTY

Source Type: Implementer

Notification date: None Given

Incinerator:

Transporter:

Contact Phone: 646-772-3407

Contact Phone: 646-772-3407

Contact Info Date: 07/19/2013

Contact Info Date: 08/19/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | HISTORIC MAXIMUM YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|-----------------------|
| D008 | Lead | 500 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 499



NYSDEC Name:

NYSDEC Address:

EPA (RCRA) Name:

EPA (RCRA) Address:

CON EDISON

FO 148 W 78 ST

SB #14002

CON EDISON SERVICE BOX: 14002

148 W 78TH ST FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004331989

TT-Id: 740A-0093-982

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 646 feet to the W

ADDRESS CHANGE INFORMATION

Revised street: 148 W 78TH ST

Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal:

Receives offsite waste:

Storer:

Treatment facility:

Notification date: None Given

Incinerator:

Transporter:

Contact Name: RICARDO CARTY

Source Type: Emergency

Contact Phone: 646-772-3407

Contact Info Date: 07/19/2013

Contact Name: RICARDO CARTY

Source Type: Implementer

Contact Phone: 646-772-3407

Contact Info Date: 08/19/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 300 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 500



NYSDEC Name:

NYSDEC Address:

CONSOLIDATED EDISON

FRONT OF 104 WEST 75 STREET

NEW YORK, NY 10020

Facility Id: NYP004187613

TT-Id: 740A-0067-461

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)

Approximate distance from property: 647 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 400 | POUNDS | GENERATED | 2009 | | |

Map Identification Number 501



NYSDEC Name:
NYSDEC Address:

CON EDISON
18 W 83 ST & COLUMBUS
SB14720

NEW YORK, NY 10024

Facility Id: NYP004636353
TT-Id: 740A-0120-728

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)
Approximate distance from property: 649 feet to the NE

ADDRESS CHANGE INFORMATION

Revised street: 18 W 83RD ST
Revised zip code: NO CHANGE

US EPA RCRA (Resource Conservation and Recovery Act) information not reported; Site information reported by NYS DEC.

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 2000 | POUNDS | GENERATED | 2014 | | |

Map Identification Number 502



NYSDEC Name:
NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CON EDISON
FO 109 W 83 ST & AMSTERDAM AVE
CON EDISON SERVICE BOX: 14690
109 W 83RD ST & AMSTERDAM AVE
FRONT OF

NEW YORK, NY 10024

NEW YORK, NY 10024

Facility Id: NYP004323044
TT-Id: 740A-0093-790

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
Approximate distance from property: 654 feet to the N

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE
Revised zip code: NO CHANGE

US EPA RCRA Type: GENERATOR TYPE NOT GIVEN

Land Disposal: Receives offsite waste:
Storer: Treatment facility:

Notification date: None Given

Incinerator:
Transporter:

Contact Name: THOMAS TEELING
Contact Name: THOMAS TEELING
Source Type: Emergency
Source Type: Implementer

Contact Phone: 212-460-3770
Contact Phone: 212-460-3770
Contact Info Date: 06/26/2013
Contact Info Date: 07/26/2013

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2013 | | |

Map Identification Number 503



NYSDEC Name:

NYSDEC Address:
EPA (RCRA) Name:
EPA (RCRA) Address:

CONSOLIDATED EDISON

SB 13554 F/O 106 W 75TH ST
CON EDISON
W 75TH ST & AMSTERDAM AVE

NEW YORK, NY

NEW YORK, NY 10023

Facility Id: NYP004189908

TT-Id: 740A-0068-288

MAP LOCATION INFORMATION

Site location mapped by: MANUAL MAPPING (3)
Approximate distance from property: 654 feet to the SW

ADDRESS CHANGE INFORMATION

Revised street: IFO 106 W 75TH ST
Revised zip code: NO CHANGE

Special Note(s): The New York State Department of Environmental Conservation and the U. S. Environmental Protection Agency have reported different locations for this hazardous waste identification number. Available information for both locations is summarized below.

US EPA RCRA Type: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR

Notification date: None Given

Land Disposal: Receives offsite waste:

Incinerator:

Storer: Treatment facility:

Transporter:

Contact Name: ANTHONY BUDA

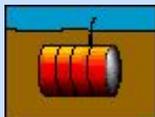
Source Type: Emergency

Contact Phone: 917-440-1809 Contact Info Date: 08/07/2009

NYS DEC Manifested Waste Summary:

Waste Codes, Waste Units, and Transaction Types are only shown for the most recently reported year.

| WASTE CODE | WASTE DESCRIPTION | WASTE AMOUNT | WASTE UNITS | TRANSACTION TYPE | YEAR | HISTORIC MAXIMUM AMOUNT | YEAR |
|------------|-------------------|--------------|-------------|------------------|------|-------------------------|------|
| D008 | Lead | 1000 | POUNDS | GENERATED | 2009 | | |



NO CHEMICAL STORAGE FACILITIES IDENTIFIED WITHIN 1/8 MILE SEARCH RADIUS



NO HISTORIC UTILITY SITES IDENTIFIED WITHIN 1/8 MILE SEARCH RADIUS



NO HAZARDOUS SUBSTANCE WASTE DISPOSAL SITES IDENTIFIED WITHIN 1/2 MILE SEARCH RADIUS



NO TOXIC AIR, LAND AND WATER RELEASES IDENTIFIED WITHIN 1/8 MILE SEARCH RADIUS



NO WASTEWATER DISCHARGES IDENTIFIED WITHIN 1/8 MILE SEARCH RADIUS



AIR DISCHARGE FACILITIES IDENTIFIED WITHIN THE 1/8 MILE SEARCH RADIUS

PLEASE NOTE: * Compass directions can vary substantially for sites located very close to the subject property address.

Map Identification Number 504



BERESFORD APARTMENTS

211 CENTRAL PARK W

Facility Id: 36061N1208

NEW YORK CITY, NY 10024

State-county CDS Id: 36061N1208

State-county NED id:
TT-ID: 900A-0003-582

MAP LOCATION INFORMATION

Site location mapped by: PARCEL MAPPING (1)

Approximate distance from property: 594 feet to the ENE

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

CDS-ID: N1208 NED-ID: None Given

EPA-ID: None Given

FINDS-ID: None Given

Plant Phone #1: (212)986-0001 Plant Phone #2: None Given

Operating Status: OPERATING

EPA Classification:

State Classification: POTENTIAL EMISSIONS ARE BELOW ALL APPLICABLE MAJOR SOURCE THRESHOLDS IF AND ONLY IF SOURCE COMPLIES WITH FEDERALLY ENFORCEABLE REGULATIONS OR LIMITATIONS

EPA Plant Compliance Status:

State Plant Compliance Status: IN COMPLIANCE – CERTIFICATION

AIR PROGRAM INFORMATION

Regulatory Air Program: TITLE V PERMITS

Program Status: OPERATING

POLLUTANT INFORMATION

Pollutant: NITROGEN DIOXIDE

State Pollutant Compliance for this pollutant: IN COMPLIANCE – CERTIFICATION



NO CIVIL & ADMINISTRATIVE ENFORCEMENT DOCKET FACILITIES IDENTIFIED WITHIN THE 1/8 MILE SEARCH RADIUS



NO NYC ENVIRONMENTAL QUALITY REVIEW REQUIREMENTS – "E" DESIGNATION SITES IDENTIFIED WITHIN 250 FT SEARCH RADIUS

U.S. EPA EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) SPILLS
AT THE LOCATION OR POTENTIALLY AT THE LOCATION OF
American Museum of Natural History
New York, NY 10024

* Any ERNS Spills listed below are NOT mapped in this report *

ONSITE ERNS (A count of these spills can be found in the distance interval table):
THIS SITE IS NOT FOUND IN THE ERNS DATABASE

POTENTIALLY ONSITE ERNS:
THIS SITE IS NOT FOUND IN THE ERNS DATABASE

Unmappable facilities for 'New York' County

NPL/CERCLIS/NYSDEC Inactive Haz. Waste or Reg. Qual. Sites

| FACILITY ID | FACILITY NAME | STREET | CITY | ZIP |
|--------------|---------------------------------|--|-----------|---------|
| 231006 | ROUTE 9A RECONSTRUCTION PROJECT | ROUTE 9A BETWEEN BATTERY PK AND 59TH ST. | MANHATTAN | UNKNOWN |
| NYD980531578 | LEROY SHOT & LEAD WORKS | UNKNOWN | NEW YORK | UNKNOWN |

Solid Waste Facilities

| FACILITY ID | FACILITY NAME | STREET | CITY | ZIP |
|---------------|-------------------|-----------------------------|----------------------|--------------------|
| 31D01 | CENTRAL PARK DEMO | | | UNKNOWN |
| 31D02 | PENN CENTRAL DEMO | | | UNKNOWN |
| 31T06 | N.Y. CARTING T.S. | | | UNKNOWN |
| NY00000002077 | PENN CENTRAL DEMO | WEST 79TH STREET UNKNOWN | MANHATTAN UNKNOWN | UNKNOWN UNKNOWN |

Hazardous Spills - TANK TEST FAILURES - Active

| FACILITY ID | FACILITY NAME | STREET | CITY | ZIP |
|-------------|-------------------|-------------|-----------|---------|
| 1108592 | 500 ACE AVE - TTF | 500 ACE AVE | MANHATTEN | UNKNOWN |

Hazardous Spills - MISC. SPILL CAUSES - Active

| FACILITY ID | FACILITY NAME | STREET | CITY | ZIP |
|-------------|-------------------------|-----------------------------|-------------------------|---------|
| 1509838 | HUDSON RIVER | 79TH STREET AND 95TH STREET | MANHATTAN | UNKNOWN |
| 1501141 | BUILDING D | 75-77 PARK WEST | MANHATTAN | UNKNOWN |
| 1412180 | CON ED TUNNEL | MANHATTAN SIDE TUNNEL | MANHATTAN | UNKNOWN |
| 9930008 | VARIOUS LOCATIONS DRUMS | DRUMS VARIOUS LOCATIONS | NEW YORK CITY (5 BOROS) | UNKNOWN |

Hazardous Spills - TANK FAILURES - Closed

| FACILITY ID | FACILITY NAME | STREET | CITY | ZIP |
|-------------|-------------------------|-------------------------|-----------|---------|
| 9306782 | W. 179TH ST & TRANSV RD | W. 179TH ST & TRANSV RD | MANHATTAN | UNKNOWN |

Hazardous Spills - TANK TEST FAILURES - Closed

| FACILITY ID | FACILITY NAME | STREET | CITY | ZIP |
|-------------|-------------------------------|---------------------------|-----------|---------|
| 9507179 | 79 STREET TRANSVERSE DPR -DDC | 79 STREET TRANSVERSE ROAD | MANHATTAN | UNKNOWN |
| 9001811 | PIER #192 | PORT AUTHORITY PIER #192 | NEW YORK | UNKNOWN |

Hazardous Spills - UNKNOWN CAUSE OR OTHER CAUSES - Closed

| FACILITY ID | FACILITY NAME | STREET | CITY | ZIP |
|-------------|---------------------------------|---------------------------|------------------------|---------|
| 1410483 | NEW YORK COUNTY EM. RES. | ONE HUNTERS POINT PLAZA | | UNKNOWN |
| 0209904 | VARIOUS DEP -BWSO SITES | MISC. | BRONX/QUEENS/MANHATTAN | UNKNOWN |
| 1309057 | DRILL - VESSEL CHEMICAL PIONEER | DRILL - IN HUDSON BAY | DRILL - UNKNOWN | UNKNOWN |
| 9909356 | MANHOLE 42241 | CENTER ISLAND & PARK RD | MANHATTAN | UNKNOWN |
| 9804732 | WESTSIDE HIGHWAY | WESTSIDE HIGHWAY | MANHATTAN | UNKNOWN |
| 9601892 | 79 STREET TRANSVERSE DPR -DDC | 79 STREET TRANSVERSE ROAD | MANHATTAN | UNKNOWN |
| 9503001 | 57TH ST & 72ND ST | 57TH ST & 72ND ST | MANHATTAN | UNKNOWN |
| 9413538 | STERLING RD & UNION PK RD | STERLING RD & UNION PK RD | MANHATTAN | UNKNOWN |
| 9307242 | BRIDGE TO B'WAY.EXPRESSWA | BRIDGE TO B'WAY.EXPRESSWA | MANHATTAN | UNKNOWN |
| 9209836 | HENRY HUDSON PKWY. | HENRY HUDSON PKWY. | MANHATTAN | UNKNOWN |
| 9006769 | RESTAURANT/UNK ADDRESS | UNKNOWN | MANHATTAN | UNKNOWN |
| 8504758 | MANHATTAN | MANHATTAN | MANHATTAN | UNKNOWN |
| 8503796 | MANHATTAN | MANHATTAN | MANHATTAN | UNKNOWN |
| 8503779 | MANHATTAN | MANHATTAN | MANHATTAN | UNKNOWN |
| 8503506 | MANHATTAN | MANHATTAN | MANHATTAN | UNKNOWN |
| 8503421 | MANHATTAN | MANHATTAN, EAST RIVER | MANHATTAN | WHR10 |
| 8503366 | MANHATTAN, NYC | MANHATTAN, HUDSON RIVER | MANHATTAN | WHR10 |
| 8503301 | MANHATTAN | MANHATTAN | MANHATTAN | UNKNOWN |
| 8503107 | MANHATTAN | MANHATTAN | MANHATTAN | UNKNOWN |
| 8202132 | WEST END AVE | WEST END AVE. | MANHATTAN | UNKNOWN |

| | | | | |
|---------|----------------------------|------------------------------------|---------------|---------|
| 1511232 | OIL SHEEN / PORT | PIER 6 | MANHATTAN | UNKNOWN |
| 1012387 | A LINE SUBWAY STATION | BROADWAY SUBWAY STATION | MANHATTAN | UNKNOWN |
| 1009165 | 222015; ADAM | ADAM | MANHATTAN | UNKNOWN |
| 1009163 | 222000; ADAM | ADAM | MANHATTAN | UNKNOWN |
| 1009149 | 221851; W ST | W ST | MANHATTAN | UNKNOWN |
| 1009036 | 220909; W 70 ST | W 70 ST | MANHATTAN | 10023 |
| 1009030 | 220841; MARGINAL ST | MARGINAL ST | MANHATTAN | UNKNOWN |
| 1008985 | 220219; MARGINAL ST | MARGINAL ST | MANHATTAN | UNKNOWN |
| 1008954 | 219988; TRANSVERSE NO 2 RD | TRANSVERSE NO 2 RD | MANHATTAN | UNKNOWN |
| 1004493 | NYCDEP SEWAGE SPILL | HARLEM RIVER DRIVE / AMSTERDAM AVE | MANHATTAN | UNKNOWN |
| 0914575 | 218964; BROADWAY | BROADWAY | MANHATTAN | UNKNOWN |
| 0910600 | MANHOLE # 5107 | NORTH SIDE OF EAST NEW YORK AVE | MANHATTAN | UNKNOWN |
| 0702307 | STREET SPILL | CENTRAL PARK WEST | MANHATTAN | UNKNOWN |
| 0500598 | NEW YORK HARBOR | NEW HARBOR | MANHATTAN | UNKNOWN |
| 0407039 | MANHOLE # PM51728 | WETERN/77STREET | MANHATTAN | UNKNOWN |
| 0402835 | UNKNOWN CON ED STRUCTURE | NORTHEAST CORNER AND EAST | MANHATTAN | UNKNOWN |
| 0209669 | SPILL NUMBER 0209669 | EXTERIOR AV/BROADWAY | MANHATTAN | UNKNOWN |
| 0205301 | 74TH ST PUMP ROOM | 74TH STREET | MANHATTAN | UNKNOWN |
| 0009680 | EMPIRE LINE BETWEEN | 42ND/72ND ST | MANHATTAN | UNKNOWN |
| 1006338 | RAW SEWAGE | UNKNOWN | MANHATTAN | UNKNOWN |
| 9905530 | VARIOUS LOCAIONS | CITY AND WESTCHESTER | NEW YORK | UNKNOWN |
| 9806123 | CON EDISON | 70TH ST | NEW YORK | UNKNOWN |
| 9113202 | 77 ST. TO 53 ST. IN MAN. | 77TH ST TO 53RD ST | NEW YORK | UNKNOWN |
| 8907255 | HERTZ RENT A CAR/MANH | | NEW YORK | UNKNOWN |
| 8604519 | NEW YORK | NEW YORK | NEW YORK | UNKNOWN |
| 1405089 | PIER 25 | PIER 25 | NEW YORK | UNKNOWN |
| 1308812 | DRILL BLD 90 | DRILL | NEW YORK | UNKNOWN |
| 0910547 | FREEDMAN | 825 WESTERN AVE | NEW YORK | UNKNOWN |
| 0804920 | IN A SANIATATION TRUCK | 86TH & 164TH STREET | NEW YORK | UNKNOWN |
| 0801987 | PORT OF ELIZABETH | APM TERMINAL -BERTH AV8 | NEW YORK | UNKNOWN |
| 0605148 | CENTRAL PARK POLICE | 86TH STREET CAUSEWAY | NEW YORK | UNKNOWN |
| 0409177 | BETWEEN 62ND & 63RD STREET | 6TH AVE BET 62ND & 63RD ST | NEW YORK | UNKNOWN |
| 0406845 | SPILL NUMBER 0406845 | BAYWAY TERMINAL-LINDEN NJ | NEW YORK | UNKNOWN |
| 0302841 | CENTRAL PARK | DPR MINERAL SPRINGS FACIL | NEW YORK | UNKNOWN |
| 0210329 | OSTANKINO | NEW YORK | NEW YORK | UNKNOWN |
| 0210315 | PEARLMAR | NEW YORK | NEW YORK | UNKNOWN |
| 0110864 | ON MARIA KNUTSEN VESSEL | KINDER MORGAN DOCK 4 | NEW YORK | UNKNOWN |
| 8606984 | UNKNOWN ADDRESS ! | UNKNOWN | NEW YORK CITY | UNKNOWN |
| 8600334 | PENN YARDS SHEEN,MANHATTA | 72ND ST-PENN YD-LINCOLN W | NEW YORK CITY | UNKNOWN |
| 0402552 | SPILL NUMBER 0402552 | BROADWAY | NEW YORK CITY | UNKNOWN |
| 8607173 | UNK | UNKNOWN | UNKNOWN | UNKNOWN |

Hazardous Spills - MISC. SPILL CAUSES - Closed

| FACILITY ID | FACILITY NAME | STREET | CITY | ZIP |
|-------------|---------------------------------|---------------------------------|------------|---------|
| 0500536 | VAULT 1236 | 218 FLOORWAY AND 8TH AVE | | UNKNOWN |
| 9212061 | 448 RIVERSIDE DRIVE | 448 RIVERSIDE DRIVE | BRONX | UNKNOWN |
| 1010037 | DRILL | DRILL | DRILL | UNKNOWN |
| 1307661 | CON EDISON FEEDER LINE M51 LEAK | CON EDISON FEEDER LINE M51 LEAK | MANAHATTAN | UNKNOWN |
| 9907952 | VAULT #6061 | WEST SIDE OF 8TH AVE | MANHATTAN | UNKNOWN |
| 9907607 | CANAL | SANITATION | MANHATTAN | UNKNOWN |
| 9804785 | APT 4J- | 10 BAY STREET LANDING | MANHATTAN | UNKNOWN |
| 9714182 | 125TH STREET TO | 62 ND STREET | MANHATTAN | UNKNOWN |
| 9713418 | UNKNOWN | UNKNOWN | MANHATTAN | UNKNOWN |
| 9506730 | TANGO PIER | TANGO PIER | MANHATTAN | UNKNOWN |
| 9414330 | 5 MORGAN CT | 5 MORGAN CT | MANHATTAN | UNKNOWN |
| 9410718 | 331 81ST STREET | 331 81ST STREET | MANHATTAN | UNKNOWN |
| 9410330 | 115 LAKE ROAD | 115 LAKE ROAD | MANHATTAN | UNKNOWN |
| 9410134 | ALLEY NEXT TO BUILDING | 550 W. 712ND ST. | MANHATTAN | 10023 |
| 9402295 | LOWER LEVEL EB #12 | LOWER LEVER EB #12 | MANHATTAN | UNKNOWN |
| 9312441 | 35 GROSS STREET | 35 GROSS STREET | MANHATTAN | UNKNOWN |

| | | | | |
|---------|---------------------------------------|-----------------------------------|----------------------|---------|
| 9310279 | WESTSIDE HWY. | WESTSIDE HIGHWAY | MANHATTAN | UNKNOWN |
| 9304809 | PLANDOMD ROAD ? | PLANDOMD ROAD? | MANHATTAN | UNKNOWN |
| 9213451 | 79TH ST. & TRANSVERSE RD. | 79TH ST. & TRANSVERSE RD. | MANHATTAN | UNKNOWN |
| 9212593 | 119 ZECNILYEA AVE | 119 ZECNILYEA AVE | MANHATTAN | UNKNOWN |
| 1503339 | CON EDISON FEEDER LEAK | 7 RIDGE HILL LANE | MANHATTAN | UNKNOWN |
| 1410694 | 97ST TRAVERSE - CENTRAL PARK | 97 ST TRAVERSE | MANHATTAN | UNKNOWN |
| 1308187 | TRACKBED | EAST RIVER TUNNEL 3 MM 1.14 | MANHATTAN | UNKNOWN |
| 1306115 | MANHOLE # 62575 | WEST END AVE | MANHATTAN | UNKNOWN |
| 1304633 | RAILROAD TRACKS | EAST RIVER TUNNEL MILE POST 0.89 | MANHATTAN | UNKNOWN |
| 1208489 | LOWER MANHATTAN | ALL STREETS IN LOWER MANHATTAN | MANHATTAN | UNKNOWN |
| 1206721 | ROADWAY | PIER 33 / HELLGATE BRIDGE | MANHATTAN | UNKNOWN |
| 1206669 | ROADWAY | 49 NANN ST | MANHATTAN | UNKNOWN |
| 1113047 | INSIDE CENTRAL PARK | 79TH ST | MANHATTAN | PCENT |
| 1106024 | CASTLE OIL OVERFILL | CENTRAL PARK | MANHATTAN | UNKNOWN |
| 1104569 | NORTH RIVER WASTE WATER REGULATOR | REGULATOR NR23 | MANHATTAN | UNKNOWN |
| 1010077 | # 7 SUBWAY LINE | STEINWAY TUBE C1 C2 | MANHATTAN | UNKNOWN |
| 1009708 | ROADWAY | 193RD ST AND 4TH AVE | MANHATTAN | UNKNOWN |
| 1009136 | 221790; W 87 ST | W 87 ST | MANHATTAN | 10024 |
| 1007567 | SURFACE WATER | WEST 79TH ST BOAT BASIN | MANHATTAN | 10024 |
| 0903026 | ROADWAY | WEST 69TH STREET | MANHATTAN | 10023 |
| 0709465 | NEW YORK HARBOR | UNKNOWN STREET ADDRESS | MANHATTAN | UNKNOWN |
| 0704113 | CENTRAL PARK 79TH ST MAIN | WEST DRIVE AT 79TH ST | MANHATTAN | UNKNOWN |
| 0506125 | VERRAZANO BRIDGE | NO STREET ADDRESS | MANHATTAN | UNKNOWN |
| 0504534 | 86TH AND FOURTH AVE | 86TH AND FOURTH AVE | MANHATTAN | UNKNOWN |
| 0503465 | CON ED EXCAVATION SITE | 74TH STREET | MANHATTAN | UNKNOWN |
| 0500954 | FRONT OF | 25 GRANITE STREET | MANHATTAN | UNKNOWN |
| 0401661 | MANHATTAN GRID CHAMBER | MANHATTAN GRID | MANHATTAN | UNKNOWN |
| 0401520 | MANHATTAN GRID CHAMBER | MANHATTAN GRID CHAMBER | MANHATTAN | UNKNOWN |
| 0212081 | SPILL NUMBER 0212081 | 555 WEST 83RD ST | MANHATTAN | 10024 |
| 0109602 | WESTSIDE PLAZA | NO ADDRESS (WESTSIDE PLAZA) | MANHATTAN | UNKNOWN |
| 0013621 | PIER 45 | NORTH RIVER | MANHATTAN | UNKNOWN |
| 0708382 | AMTRACK | TUNNEL #3 BETWEEN MADISON | MANHATTAN | UNKNOWN |
| 0706052 | CONSTRUCTION SITE | 78TH & 101 TH AVE | MANHATTAN | UNKNOWN |
| 9713824 | CENTRAL PARK | 97TH ST / MID PARK | NEW YORK | UNKNOWN |
| 1509631 | RESIDENTIAL | 412 WESTERN AVE | NEW YORK | UNKNOWN |
| 1507519 | ALLIANCE GLOBAL SITE | 51 -63 ACE AVE | NEW YORK | UNKNOWN |
| 1204511 | 3 STORY BUILDING | 1183 BAY STREET | NEW YORK | UNKNOWN |
| 1108305 | RELAY ROOM FOR NYC TRANSIT | SOUTH ST AND ADMIRAL GEORGE DEWEY | NEW YORK | UNKNOWN |
| 1010611 | PRINCESS K OVERFILL | LAT 40/37.9 LONG 74/ 3.7 | NEW YORK | UNKNOWN |
| 1007852 | ROADWAY | WEST 772ND ST AND COLUMBUS AVE | NEW YORK | UNKNOWN |
| 0810612 | LAT 40-3942.8 SEC NORTH LONG-74.343SW | PORT JERSEY CHANNEL | NEW YORK | UNKNOWN |
| 0808382 | 13 TH MANHATTEN CHAMBER | 13 TH MANHATTEN CHAMBER | NEW YORK | UNKNOWN |
| 0409938 | NEW YORK IM TTDock A | NEW YORK IM TT DOCK | NEW YORK | UNKNOWN |
| 0310659 | GREYSEND ANCHORAGE PORT | UNKNOWN | NEW YORK | UNKNOWN |
| 1206909 | SPECTRA SITE | GANSEVOORT RD | NEW YORK (MANHATTAN) | UNKNOWN |
| 9606764 | FEEDER #71 | DUNWOODIE TO RAINEY | NEW YORK CITY | UNKNOWN |
| 9102962 | 97TH ST/TRANSVERSE RD/MAN | 97TH ST & TRANSVERSE RD | NEW YORK CITY | UNKNOWN |
| 9011921 | FDR&LAUREL HILL/181ST ST | FDR&LAUREL HILL TERRACE | NEW YORK CITY | UNKNOWN |
| 8606687 | 334 90TH ST. | 334 90TH ST. | NEW YORK CITY | UNKNOWN |
| 8603501 | CONED 75 ST | CONED 75 ST | NEW YORK CITY | UNKNOWN |
| 0207606 | 188TH STREET AND | 188TH ST & COLUMBUS AVE | NEW YORK CITY | UNKNOWN |
| 0402464 | IN FLIGHT | AIR | NY | UNKNOWN |
| 9202729 | 90TH STREET | 90TH STREET | NYC | UNKNOWN |
| 9501840 | UNKNOWN LOCATION | UNKNOWN LOCATION | WESTCHESTER | UNKNOWN |

Petroleum Bulk Storage Facilities

| FACILITY ID | FACILITY NAME | STREET | CITY | ZIP |
|-------------|--------------------------------|----------------------------------|----------|---------|
| 2-609607 | SHAFT 13B | 79TH STREET TRANSVERSE ROAD | NEW YORK | UNKNOWN |
| NY07443 | NYC FIRE | | NEW YORK | UNKNOWN |
| 2-157856 | MOBIL S/S 1 JBWBT ARDOR GARAGE | MOBIL S/S 1 (JBWBT ARDOR GARAGE) | NY | UNKNOWN |

Hazardous Waste Generation or Transport Facilities

| FACILITY ID | FACILITY NAME | STREET | CITY | ZIP |
|--------------|-------------------------------|--------------------------------|-----------|----------|
| NYN20002A347 | | | | UNKNOWN |
| NYP004181152 | CONED | MH SV-13 | MANHATTAN | UNKNOWN |
| NYP004407967 | CONSOLIDATED EDISON | ILLEGIBLE | MANHATTAN | UNKNOWN |
| NY0000010363 | NYCDOT | N/S | N/S | UNKNOWN |
| NYP004077467 | CONSOLIDATED EDISON | MH37962-SAINT JOHN | N/S | UNKNOWN |
| NY0005000575 | JOHN DOE | DELETE | NEW YORK | UNKNOWN |
| NYD000100073 | NYCDOT MANHATTN BRIDGE | OVER EAST RIVER | NEW YORK | 10000 |
| NYD004064622 | CONSOLIDATED EDISON | N/S | NEW YORK | UNKNOWN |
| NYD004079695 | CONSOLIDATED EDISON | MH57861 74TH &75TH ST | NEW YORK | UNKNOWN |
| NYD981887194 | METRO-NORTH RAILROAD | FORMER DISTRIBUTION CENTER | NEW YORK | UNKNOWN |
| NYP000007732 | NYCTA | N/S | NEW YORK | UNKNOWN |
| NYP000915488 | CON EDISION - WTC AREA | VARIOUS WTC LOCATIONS | VARIOUS | NEW YORK |
| NYP000918558 | NYCTA | N/S | NEW YORK | UNKNOWN |
| NYP000936898 | NYC DEPT PARKS & RECREATION | WEST 79TH ST | NEW YORK | 10024 |
| NYP000963462 | VERIZON NEW YORK INC. MANHOLE | NW 93 RD | NEW YORK | UNKNOWN |
| NYP004020566 | CONSOLIDATED EDISON | V5715-READERS DIGEST | NEW YORK | UNKNOWN |
| NYP004033411 | CONSOLIDATED EDISON | V0155 | NEW YORK | UNKNOWN |
| NYP004037867 | CONSOLIDATED EDISON | V2801-W 395TH ST | NEW YORK | UNKNOWN |
| NYP004038774 | CONSOLIDATED EDISON | V5145-COLUMBUS AVE | NEW YORK | UNKNOWN |
| NYP004039633 | CONSOLIDATED EDISON | VS0618-N/S | NEW YORK | UNKNOWN |
| NYP004040531 | CONSOLIDATED EDISON | #15691-W 79TH ST | NEW YORK | 10024 |
| NYP004043139 | CONSOLIDATED EDISON | MH62189 - WSD ST | NEW YORK | UNKNOWN |
| NYP004048708 | CONSOLIDATED EDISON | 614145 M E | NEW YORK | UNKNOWN |
| NYP004050092 | CONSOLIDATED EDISON | V5105-F/O 101 WHO ST | NEW YORK | UNKNOWN |
| NYP004056701 | CONSOLIDATED EDISON | N/S | NEW YORK | UNKNOWN |
| NYP004063392 | CONSOLIDATED EDISON | 496 GLEN AVE | NEW YORK | UNKNOWN |
| NYP004066676 | CONSOLIDATED EDISON | MH61062 | NEW YORK | UNKNOWN |
| NYP004068078 | CONSOLIDATED EDISON | TM3481 | NEW YORK | UNKNOWN |
| NYP004072153 | CONSOLIDATED EDISON | MH73305 | NEW YORK | UNKNOWN |
| NYP004072385 | CONSOLIDATED EDISON | 209 FLORENCE AVE | NEW YORK | UNKNOWN |
| NYP004076295 | CONSOLIDATED EDISON | MH27243-BROWN | NEW YORK | UNKNOWN |
| NYP004083804 | CONSOLIDATED EDISON | BER BOX 54269 | NEW YORK | UNKNOWN |
| NYP004100384 | CONSOLIDATED EDISON | 136 N MAIN ST | NEW YORK | UNKNOWN |
| NYP004110201 | CONSOLIDATED EDISON | V3480 / 92-104 CODA ST | NEW YORK | UNKNOWN |
| NYP004144119 | CONSOLIDATED EDISON | MH11077 | NEW YORK | UNKNOWN |
| NYP004144190 | CONSOLIDATED EDISON | 413TH ST & 220TH ST | NEW YORK | UNKNOWN |
| NYP004146122 | CONSOLIDATED EDISON | MANSSION & MCKINLEY DUNWOODIE | NEW YORK | UNKNOWN |
| NYP004162582 | CON EDISON | NW COR W 76TH ST | NEW YORK | 10023 |
| NYP004173522 | CONSOLIDATED EDISON | 1000 FAIRWAY LANE | NEW YORK | UNKNOWN |
| NYP004179271 | CONED | 75 E BLD 1 | NEW YORK | UNKNOWN |
| NYP004179297 | CONSOLIDATED EDISON | F/O 281 E DROMBE AVE | NEW YORK | UNKNOWN |
| NYP004189023 | CONSOLIDATED EDISON | F/O 1731 EAST AVE. | NEW YORK | UNKNOWN |
| NYP004196879 | CONSOLIDATED EDISON | NORTH SIDE OF JOHN ST 75' EAST | NEW YORK | UNKNOWN |
| NYP004199303 | CONSOLIDATED EDISON | 185TH & COLUMBUS AVE | NEW YORK | UNKNOWN |
| NYP004217703 | CONSOLIDATED EDISON | MH2721 - CEDAR & PALMER | NEW YORK | UNKNOWN |
| NYP004224846 | CONED - | NO ADDRESS INFO ON MANIFEST | NEW YORK | UNKNOWN |
| NYP004226629 | CONED | W 1321TH ST | NEW YORK | UNKNOWN |
| NYP004226710 | CONED | FLO 55 | NEW YORK | UNKNOWN |
| NYP004226751 | CONED | FLO 49 | NEW YORK | UNKNOWN |
| NYP004226769 | CONED | FLO 61 | NEW YORK | UNKNOWN |
| NYP004240123 | CONED | MANHOLE 1794 | NEW YORK | UNKNOWN |
| NYP004245866 | CONED | GAS DRIP 501 | NEW YORK | UNKNOWN |
| NYP004320222 | CON EDISON | SCENT PK TRANS RD 1 SE CPW | NEW YORK | 10023 |
| NYP004320230 | CON EDISON | N TRANSVERSE RD 217 E CPW | NEW YORK | 10023 |
| NYP004321626 | CON EDISON | 290 ` E S CENT PK TRANS RD 1 E | NEW YORK | 10023 |
| NYP004323903 | CON EDISON | NE RIVERSIDE DR | NEW YORK | 10024 |
| NYP004473765 | CON EDISON | NORTH SIDE CYRPRESS AVE | NEW YORK | UNKNOWN |

| | | | | |
|--------------|-------------------------------|-----------------------------------|----------|---------|
| NYP004527941 | CON EDISON | 6' SOUTH 10 NORTH WO WEST END AVE | NEW YORK | 10023 |
| NYP004703834 | CONSOLIDATED EDISON | MH26764 | NEW YORK | UNKNOWN |
| NYR000005678 | NYC PARKS AND REC 86TH STREET | 86TH ST TRAVERSE RD CENTRAL PK | NEW YORK | UNKNOWN |
| NYR000034058 | NYCTA | CONTRACT #S-34505 - RM 819 | NEW YORK | UNKNOWN |
| NYR000091793 | NYCDEP CENTRAL PARK RESERVOIR | 86TH ST & PARK DR N | NEW YORK | 10024 |
| NYR000103630 | NYC DEPT OF PARKS | CENTRAL PARK TRANSVERSE | NEW YORK | 10024 |
| NYR000050625 | NYCTA | 606W FROST | NYC | UNKNOWN |

Hazardous Substance Waste Sites

| FACILITY ID | FACILITY NAME | STREET | CITY | ZIP |
|-------------|----------------------|-------------------|---------------|---------|
| NY0081 | ROUTE 9A - MANHATTAN | WEST SIDE HIGHWAY | NEW YORK CITY | UNKNOWN |

Wastewater Discharges

| FACILITY ID | FACILITY NAME | STREET | CITY | ZIP |
|-------------|-----------------------------|--------|------|---------|
| NY0200794 | | | | UNKNOWN |
| NYU200032 | CONSOLIDATED EDISON COMPANY | | | UNKNOWN |

Air Releases

| FACILITY ID | FACILITY NAME | STREET | CITY | ZIP |
|-------------|----------------------|----------------------|---------------|---------|
| 3606100080 | NYCHA-FOSTER HOUSING | NO STREET ADDRESS | NEW YORK | UNKNOWN |
| 3606100129 | NAVY DIST COMMANDER | NO STREET ADDRESS | NEW YORK | UNKNOWN |
| 3606100495 | FEILER BROS CORP | ROOM 1700 | NEW YORK | UNKNOWN |
| 3606100552 | ACADEMY CONSTRUCTION | NO STREET ADDRESS | NEW YORK | UNKNOWN |
| 3606180051 | FEILER BROS CORP | ROOM 1700 | NEW YORK | UNKNOWN |
| 3606100558 | SOS INTERNATIONAL | BOX 2976 CHURCH STAT | NEW YORK CITY | UNKNOWN |
| NY061X0NP | MIDTOWN HOLDING CO | NO STREET ADDRESS | NO CITY NAME | UNKNOWN |
| NY061X2DR | UNI HAB CO | NO STREET ADDRESS | NO CITY NAME | UNKNOWN |

Hazardous waste codes presented in individual Toxic Information Profiles are defined below.

- B001 PCB Oil (concentrated) from transformers, capacitors, etc.
- B002 Petroleum oil or other liquid containing 50 ppm or greater of PCBs but less than 500 ppm PCBs. This includes oil from electrical equipment whose PCB concentration is unknown, except for circuit breakers, reclosers and cable.
- B003 Petroleum oil or other liquid containing 500 ppm or greater of PCBs.
- B007 Other PCB Wastes including contaminated soil, solids, sludges, clothing, rags, and dredge material.
- B008
- D001 Solid waste that exhibits the characteristic of ignitability, but is not listed under any other hazardous waste code.
- D002 Solid waste that exhibits the characteristic of corrosivity, but is not listed under any other hazardous waste code.
- D003 Solid waste that exhibits the characteristic of reactivity, but is not listed under any other hazardous waste code.
- D004 Arsenic
- D006 Cadmium
- D007 Chromium
- D008 Lead
- D009 Mercury
- D011 Silver
- D018 BENZENE
- D022 Chloroform
- F001 The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (T)
- F002 The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the

recovery of these spent solvents and spent solvent mixtures. (T)

- F003 The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (I)*
- F004 The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (T)
- F005 The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (I,T)
- F027 Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.) (H)
- P012 Arsenic oxide As_2O_3
- P030 Cyanides (soluble cyanide salts), not otherwise specified
- P087 Osmium oxide OsO_4 , (T-4)-
- P106 Sodium cyanide $Na(CN)$
- P108 Strychnine, & salts
- U002 Acetone (I)
- U007 Acrylamide
- U012 Aniline (I,T)
- U019 Benzene (I,T)
- U021 Benzidine
- U044 Chloroform

U069 1,2-Benzenedicarboxylic acid, dibutyl ester
U072 Benzene, 1,4-dichloro-
U077 Ethane, 1,2-dichloro-
U080 Methylene chloride
U108 1,4-Diethyleneoxide
U122 Formaldehyde
U123 Formic acid (C,T)
U134 Hydrogen fluoride (C,T)
U138 Methane, iodo-
U147 2,5-Furandione
U151 Mercury
U165 Naphthalene
U182 1,3,5-Trioxane, 2,4,6-trimethyl-
U188 Phenol
U211 Methane, tetrachloro-
U220 Toluene
U228 Ethene, trichloro-
U238 Carbamic acid, ethyl ester
U239 Xylene (I)
X726
X850
X900

X940

Source: U. S. Environmental Protection Agency

How Toxic Site Locations Are Mapped

Toxics Targeting maps toxic site locations on a digital version of the U. S. Census map or those used by local authorities using addresses and map coordinates provided by site owners/operators or government agencies. In order to allow site locations to be verified independently, the information used to map each site is presented in the first section of each Toxic Site Profile, along with a description of the mapping technique used and any address corrections that were made in order to locate toxic sites with incomplete or inadequate site location information. The mapping process is explained below.

Map Identification Number: 12

Site Name: Acme World Manufacturing, Inc.

Site Address: 55 Main Street

Anytown, NY 11797

MAP LOCATION INFORMATION

Site location mapped by:

Address Matching

Note: Some sites have an address match location and a map coordinate location. Both locations are mapped because they can be equally correct.

or Map Coordinate

or Manual Mapping

or Site Visit

1) Most toxic sites are mapped by matching addresses provided by site owners/operators or government agencies with locations on a digital version of the street or parcel map. These site locations are identified with the method used to map them.

2) Some toxic sites are located using map coordinates provided by site owners/operators or government agencies. These site locations are identified "map coordinate." Map coordinates for Toxic Wastewater Discharges, Toxic Release Inventory sites and Major Oil Storage Facilities should be considered suspect.

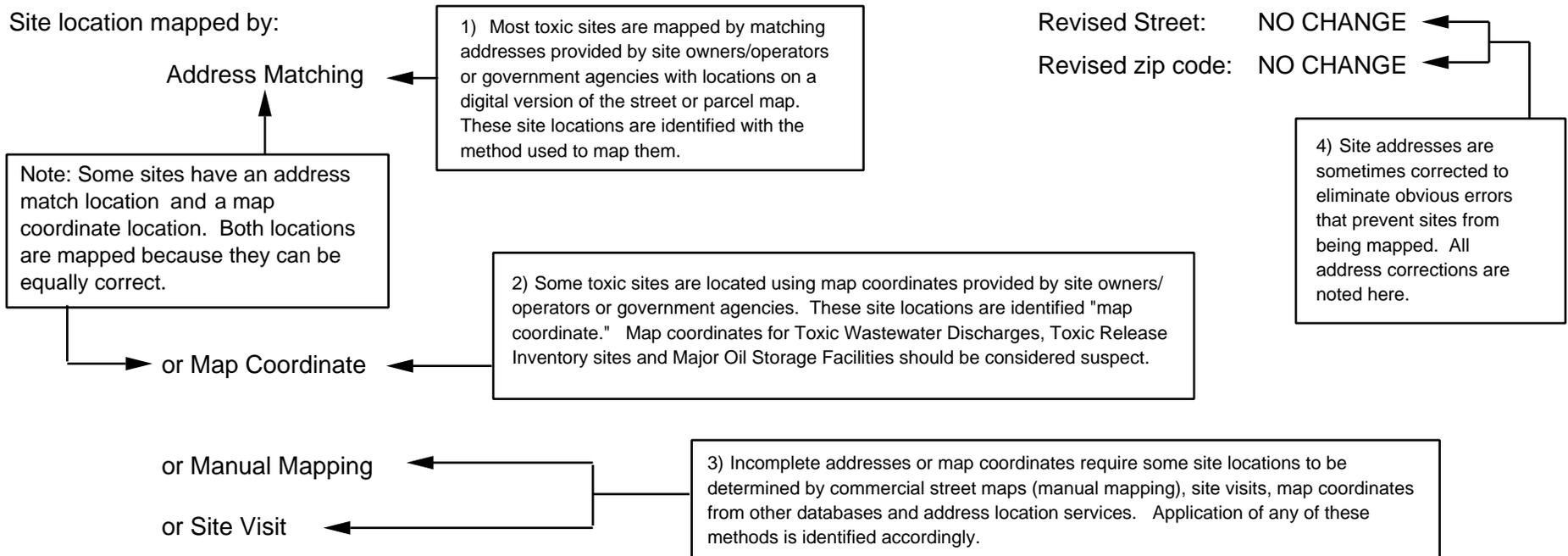
3) Incomplete addresses or map coordinates require some site locations to be determined by commercial street maps (manual mapping), site visits, map coordinates from other databases and address location services. Application of any of these methods is identified accordingly.

ADDRESS CHANGE INFORMATION

Revised Street: NO CHANGE

Revised zip code: NO CHANGE

4) Site addresses are sometimes corrected to eliminate obvious errors that prevent sites from being mapped. All address corrections are noted here.



Information Source Guide

Toxics Targeting's Environmental Reports contain government and other information compiled on 21 categories of reported known or potential toxic sites. Each toxic site database is described below with information detailing a) the source of the information, b) the date when each database is covered to and c) when *Toxics Targeting* obtained the information..

1) **National Priority List for Federal Superfund Cleanup**: Toxic sites nominated for cleanup under the Federal Superfund program. Annual compilation of special two-page detailed profiles of NPL sites. Also includes delisted NPL sites. ASTM required.* Fannie Mae required.** Source: U. S. Environmental Protection Agency.¹
Data attributes updated from: 9/9/2015. Data obtained by Toxics Targeting: 9/9/2015.
New Facilities updated through: 9/9/2015. Data obtained by Toxics Targeting: 9/9/2015.

2) **Inactive Hazardous Waste Disposal Site Registry**: New York State database that maintains information and aids decision making regarding the investigation and cleanup of toxic sites. The Registry's data includes two-page profiles noting site name, ID number, description, classification, cleanup status, types of cleanup, owner information, types and quantities of contaminants, and assessment of health and environmental problems. Also included are sites that qualify for possible inclusion on the Registry. These Registry Qualifying sites may or may not be on the Site Registry. ASTM required.* Fannie Mae required.** Source: New York State Department of Environmental Conservation.²
Data attributes updated through: 7/01/2016. Data obtained by Toxics Targeting: 7/01/2016.
New Facilities updated to: 7/01/2016. Data obtained by Toxics Targeting: 7/01/2016.

3) **Federal & State Corrective Action Activity (CORRACTS)**: New York State and Federal databases of hazardous facilities regulated pursuant to the Resource Conservation and Recovery Act (RCRA).
ASTM required.* Fannie Mae required.**

| | | |
|----------------------------------|------------|--|
| Federal Data | | Source: U. S. Environmental Protection Agency ¹ |
| Data attributes updated through: | 4/11/2016. | Data obtained by Toxics Targeting: 4/19/2016. |
| New facilities updated through: | 4/11/2016. | Data obtained by Toxics Targeting: 4/19/2016. |

| | | |
|----------------------------------|------------|---|
| State Data | | Source: New York State Department of Environmental Conservation. ² |
| Data attributes updated through: | 7/01/2016. | Data obtained by Toxics Targeting: 7/01/2016. |
| New facilities updated through: | 7/01/2016. | Data obtained by Toxics Targeting: 7/01/2016. |

4) **CERCLIS**: Toxic sites listed in the Federal Comprehensive Environmental Response, Compensation and Liability Information System. Includes Active and No Further Remedial Action Planned (NFRAP) sites. ASTM required.* Fannie Mae required.** Source: U. S. Environmental Protection Agency.¹
Data attributes updated through: 10/25/2013. Data obtained by Toxics Targeting: 1/07/2014.
New Facilities updated through: 1/11/2016. Data obtained by Toxics Targeting: 1/23/2016.

5) **Brownfield Programs**: NYS & NYC programs for sites that are abandoned, idled or under-used industrial and/or commercial sites where expansion or redevelopment is complicated by real or perceived environmental contamination. ASTM required.*

(a) **NYS DEC Brownfield Programs**: Source: New York State Department of Environmental Conservation.² includes: **Brownfield Cleanup Program (BCP), Voluntary Cleanup Program (VCP), and Environmental Restoration Program (ERP)**
Data attributes updated through: 7/01/2016. Data obtained by Toxics Targeting: 7/01/2016.
New Facilities updated to: 7/01/2016. Data obtained by Toxics Targeting: 7/01/2016.

(b) **NYC Voluntary Cleanup Program**: Source: NYC Office of Environmental Remediation
Data attributes updated through: 11/30/15. Data obtained by Toxics Targeting: 12/10/2015.
New Facilities updated to: 11/30/15. Data obtained by Toxics Targeting: 12/10/2015.

6) **Solid Waste Facilities**: a compilation of the following 2 databases:

(a) **NYS Solid Waste Registry**: which includes, but is not limited to, landfills, incinerators, transfer stations, recycling centers. ASTM required.* Fannie Mae required.** Source: New York State Dept. of Environmental Conservation.²
Data updated to: 4/1/2013. Data obtained by Toxics Targeting: 4/1/2013.

(b) **1934 Solid Waste Disposal Site in New York City**: which includes sites operated by municipal authorities circa 1934. Source: City of New York Department of Sanitation (1984). The Waste Disposal Problem in New York City: A Proposal For Action.

7) **RCRA Hazardous Waste Treatment, Storage or Disposal Facility Databases:**

(a) **Manifest Information:** New York State database of hazardous waste facilities and shipments regulated by the DEC's Division of Environmental Remediation pursuant to NYS Law and the Resource Conservation and Recovery Act (RCRA). ASTM required.* Fannie Mae required.** Source: New York State Department of Environmental Conservation.²

New facilities updated through: 4/22/2016. New facilities obtained by Toxics Targeting: 4/22/2016.
Manifest transactions data updated to: 4/22/2016. Manifest transactions data obtained by Toxics Targeting: 4/22/2016.

(b) **RCRA Notifier & Violations Information:** U. S. Environmental Protection Agency database of hazardous facilities regulated pursuant to the Resource Conservation and Recovery Act (RCRA). ASTM required.* Fannie Mae required.** Source: U. S. Environmental Protection Agency¹
New facilities updated through: 4/11/2016. Data obtained by Toxics Targeting: 4/19/2016.
Data attributes updated through: 4/11/2016. Data obtained by Toxics Targeting: 4/19/2016.

8) **Spills Information Database:** Spills reported to the DEC as required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from Petroleum Bulk Storage Regulations) or 6 NYCRR Section 595.2 (from Chemical Bulk Storage Regulations). This database includes both *active* and *closed* spills. ASTM required.* Fannie Mae.** Source: NYS Department of Environmental Conservation.²

New spills through: 2/13/2016 New spills data obtained by Toxics Targeting: 2/13/2016
Spill attribute data through: 6/24/2016 Spill attribute data obtained by Toxics Targeting: 6/24/2016

Active spills: paperwork not completed. Closed spills: paperwork completed.
Both active and closed spills may or may not have been cleaned up (see Date Cleanup Ceased in spill profiles).

9) **Major Oil Storage Facilities:** NYS database of facilities licensed pursuant to Article 12 of the Navigation Law, 6NYCRR Parts 610 and 17NYCRR Part 30, such as onshore facilities or vessels, with petroleum storage capacities equal to or greater than four hundred thousand gallons. **Tank & other data withheld by NYSDEC as of 4/1/2002.** ASTM required.* Fannie Mae required.** Source: New York State Department of Environmental Conservation.²

Data updated through: 7/1/2016. Data obtained by Toxics Targeting: 7/1/2016.

10) **Petroleum Bulk Storage Facilities:** a compilation of local and state databases of aboveground and underground petroleum storage tank facilities.

(a) **NYS Petroleum Bulk Storage Database:** This includes all New York State counties except Cortland, Nassau, Rockland, Suffolk, and Westchester. ASTM required.* Fannie Mae required.** Source: NYS Department of Environmental Conservation.²
New facilities updated through: 7/1/2016. Data obtained by Toxics Targeting: 7/1/2016.
Tank data updated through: 7/1/2016. Data obtained by Toxics Targeting: 7/1/2016.

(b) **New York City Fire Department Tank Data:** **Data has been withheld by the NYC Fire Dept.**
Source: New York City Fire Department. Data obtained by Toxics Targeting: 2/18/1997

11) **RCRA Hazardous Waste Generators and/or Transporters Databases:**

(a) **Manifest Information:** New York State database of hazardous waste facilities and shipments regulated by the NYS Department of Environmental Conservation's Division of Environmental Remediation pursuant to New York State Law. ASTM required.* Fannie Mae required.** Source: New York State Department of Environmental Conservation.²

New facilities updated through: 4/22/2016. New facilities obtained by Toxics Targeting: 4/22/2016.
Manifest transactions data updated to: 4/22/2016. Manifest transactions data obtained by Toxics Targeting: 4/22/2016.

(b) **RCRA Notifier & Violations Information:** U. S. Environmental Protection Agency database of hazardous facilities regulated pursuant to the Resource Conservation and Recovery Act (RCRA). ASTM required.* Fannie Mae required.** Source: U. S. Environmental Protection Agency¹

New facilities updated through: 4/11/2016. Data obtained by Toxics Targeting: 4/19/2016.
Data attributes updated through: 4/11/2016. Data obtained by Toxics Targeting: 4/19/2016.

12) **Chemical Bulk Storage Facilities:** New York State database of facilities compiled pursuant to 6NYCRR Part 596 that store regulated substances listed in 6NYCRR Part 597 in aboveground tanks with capacities greater than 185 gallons and /or in underground tanks of any size. **Tank & other data withheld by NYSDEC as of 4/1/2002.** ASTM required.* Fannie Mae required.** Source: New York State Department of Environmental Conservation.²
Data updated through: 7/1/2016. Data obtained by Toxics Targeting: 7/1/2016.

13) **Historic New York City Utility Facilities (1898 to 1950)**: An inventory of selected power generating stations, manufactured gas plants, gas storage facilities, maintenance yards and other gas and electric utility sites identified in various historic documents, maps and annual reports of New York utility companies, including: Sanborn Fire Insurance Maps of NYC (1898-1950); Consolidated Edison Co. Annual Reports (1922-1939); Consolidated Edison Co. Map: "Boroughs of Manhattan and the Bronx Showing Distribution Mains of the New York Edison Co.," (1922); and Consolidated Edison document: "Generating and Annex Stations," (1911).

14) **Hazardous Substance Waste Disposal Site Study**: NYS database of waste disposal sites that may pose threats to public health or the environment, but could not be remediated using monies from the Hazardous Waste Remedial Fund.

Source: New York State Department of Environmental Conservation.²

Data updated to: 5/16/2000.

Data obtained by Toxics Targeting: 5/16/2000.

15) **Toxic Release Inventory (TRI)**: Federal database of manufacturing facilities required under Section 313 of the Federal Emergency Planning and Community Right-to-Know Act to report releases to the air, water and land of any specifically listed toxic chemical. See Fannie Mae requirement** below.

Source: U. S. Environmental Protection Agency.¹ / NYS Department of Environmental Conservation²

Data updated through: 3/8/2004.

Data obtained by Toxics Targeting: 3/25/2004

16) **Toxic Wastewater Discharges (Permit Compliance System)**: Federal database of discharges of wastewater to surface waters and groundwaters. See Fannie Mae requirement** below. Source: U. S. Environmental Protection Agency.¹

Data updated through: 6/17/2004.

Data obtained by Toxics Targeting: 7/19/2004.

17) **Air Discharge Facilities**: EPA AIRS database containing address information on each air emission facility and the type of air pollutant emission it is. Compliance information is also provided on each pollutant as well as the facility itself.

See Fannie Mae requirement** below.

Source: U. S. Environmental Protection Agency¹

Data updated through: 11/24/1999.

Data obtained by Toxics Targeting: 1/6/2000

18) **Civil Enforcement & Administrative Docket**: This database is the U. S. EPA's system for tracking administrative and civil judiciary cases filed on behalf of the agency by the Department of Justice. Fannie Mae required.**

Source: U. S. Environmental Protection Agency.¹

New Sites through: 10/14/1999.

Data updated through: 10/14/1999.

Data obtained by Toxics Targeting: 11/18/1999.

19) **New York City Environmental Quality Review (CEQR) – E Designation Sites**: These sites are parcels assigned a special environmental ("E") designation under the CEQR process. E designation requires specific protocols that must be followed.

Source: New York City Department of Planning³

Data updated through: 6/16/2016.

Data obtained by Toxics Targeting: 6/20/2016.

20) **Emergency Response Notification System (ERNS)**: Federal database of spills compiled by the Emergency Response Notification System. On-site searches only.

ASTM required.* See Fannie Mae requirement** below.

Source: U. S. Environmental Protection Agency.¹

Data updated through: 1/31/2000.

Data obtained by Toxics Targeting: 2/15/2000

21) **Remediation Site Borders**: Remediation site borders reported by NYSDEC.

Source: New York State Department of Environmental Conservation.²

Updated through: 4/8/2009.

Data obtained by Toxics Targeting: 7/21/2009.

* American Society of Testing Materials: Standard Practice on Environmental Site Assessments: Phase I Environmental Site Assessment Process (E1527-05).

** Fannie Mae's Part X Environmental Hazards Management Procedures specify 1.0 mile searches for "any state or Federal list of hazardous waste sites (e.g. CERCLIS, HWDMS etc.)." Searches for the property and adjacent properties are specified for "chemical manufacturing plants," "obvious high risk neighbors engaging in storing or transporting hazardous waste, chemicals or substances" and "...any documented or visible evidence of dangerous waste handling... (e.g. stressed vegetation, stained soil, open or leaking containers, foul fumes or smells, oily ponds, etc." Searches for property and adjacent properties can include sites up to a quarter mile away (W. Hayward, Director, Multi-Family Business Planning and Control, Fannie Mae, personal communication, 5/94).

¹U. S. Environmental Protection Agency, 290 Broadway, NY, NY 10007-1866.

²NYS Department of Environmental Conservation, 625 Broadway, Albany, NY 12233.

³New York City Department of City Planning, 22 Reade St, New York, NY 10007-1216

APPENDIX D
LOCAL RECORDS

Department of Environmental Conservation

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FOIL Request Main Page (SupportHome.aspx)

I want to...

Reference No: W010617-080516

Contact E-Mail: abosco@akrf.com

Dear Adrianna:

Thank you for your Freedom of Information Law (FOIL) request. Your request has been received and is being processed. Your request was received in this office on 8/5/2016 and given the reference number FOIL #**W010617-080516** for tracking purposes. You may expect the Department's response to your request no later than **9/2/2016**.

Record Requested: Information regarding underground/aboveground storage tanks (USTs/ASTs), spill records, remediation sites, dump sites, soil and groundwater remediation, storage/treatment/disposal of hazardous materials or hazardous materials activities for the following address: 200 Central Park West, New York, NY 10024 (American Museum of Natural History) PBS ID: 2-611190

You can monitor the progress of your request at the link below and you'll receive an email when your request has been completed. Again, thank you for using the FOIL Center.

https://mycusthelp.com/NEWYORKDEC/_rs/RequestLogin.aspx
(https://mycusthelp.com/NEWYORKDEC/_rs/RequestLogin.aspx)

New York State Department of Environmental Conservation, Record Access Office

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Adrianna Bosco <abosco@akrf.com>

FOIL Request :: W010617-080516

1 message

New York DEC Support <newyorkdec@mycusthelp.net>
To: abosco@akrf.com

Fri, Aug 5, 2016 at 2:48 PM

Dear Adrianna:

Thank you for your Freedom of Information Law (FOIL) request. Your request has been received and is being processed. Your request was received in this office on 8/5/2016 and given the reference number FOIL #W010617-080516 for tracking purposes. You may expect the Department's response to your request no later than **9/2/2016**.

Record Requested: **Information regarding underground/aboveground storage tanks (USTs/ASTs), spill records, remediation sites, dump sites, soil and groundwater remediation, storage/treatment/disposal of hazardous materials or hazardous materials activities for the following address: 200 Central Park West, New York, NY 10024 (American Museum of Natural History) PBS ID: 2-611190**

You can monitor the progress of your request at the link below and you'll receive an email when your request has been completed. Again, thank you for using the FOIL Center.

https://mycusthelp.com/NEWYORKDEC/_rs/RequestLogin.aspx

New York State Department of Environmental Conservation, Record Access Office

Track the issue status and respond at: https://mycusthelp.com/NEWYORKDEC/_rs/RequestEdit.aspx?rid=10617



Environmental and Planning Consultants

440 Park Avenue South
7th Floor
New York, NY 10016
tel: 212 696-0670
fax: 212 213-3191
www.akrf.com

August 5, 2016

Records Access Office
New York State Department of Health
Corning Tower Room 2364
Albany, New York 12237-0044
518-486-9144 (fax)

Sent by e-mail

Re: FOIL Request
Project No.: 12166
200 Central Park West, New York, NY 10024 (American Museum of Natural History)

Dear Sir or Madam:

Pursuant to the Freedom of Information Law, we are requesting information regarding underground/aboveground storage tanks (USTs/ASTs), spill records, remediation sites, dump sites, soil and groundwater remediation, storage/treatment/disposal of hazardous materials or hazardous materials activities for the above referenced site. Your response can either be faxed to (212) 726-0942 or mailed to the address identified above as soon as possible. Please notify me if there are any costs associated with processing this request. In addition, please indicate AKRF's project number (**12166**) on all correspondence. If you have any questions, please call me at (646) 388-9576.

Thank you in advance for your assistance and cooperation.

Sincerely,
AKRF, Inc.

A handwritten signature in black ink that reads "Adrianna Bosco".

Adrianna Bosco
Environmental Scientist



GO

NEWSLETTER SIGN-UP | EMAIL A FRIEND | PRINTER FRIENDLY | TRANSLATE THIS PAGE | TEXT SIZE: A A A

Home

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- Ways to Pay Your Bill
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Application for Records Under FOIL

FOIL Request Form

Please complete the form below. If responsive records are located, you will be notified and informed of the required payment. Advance payment is required in check or money order payable to the NYC DEP at a cost of \$.25 per page, or actual cost of reproduction before documents will be released.

Instructions

- Instructions for Applications for Records Under FOIL

Check one: Under Article 6 of the New York State Public Officers Law ("FOIL"), I hereby apply to:

- Inspect copies; or Receive copies of the following records.

Specify/Describe the records you are requesting in detail. Include any relevant location, address, permit #, complaint #, court index #, incident date, etc. If applicable, please submit separate requests for multiple locations, account #'s or incidents.

Information regarding underground/aboveground storage tanks (USTs/ASTs), spill records, remediation sites, dump sites, soil and groundwater remediation, storage/treatment/disposal of hazardous materials or hazardous materials activities.

Location: (If possible, list full street address, including borough)

200 Central Park West, New York, NY 10024 (Manhattan)

Time frame/Date of Records:

Any/all

Requestor's Name:

Adrianna Bosco

Email:

abosco@akrf.com

Organization/Firm:

AKRF, Inc.

Phone:

646-388-9576

Address:

440 Park Avenue South, 7th Floor

Address Line 2 (optional):

New York, NY 10016

My DEP Account and Online Bill Pay

New Payment Options

Reservoir Levels

Current: 85.5%

Normal: 86.6%

Customer Assistance

- Contact Customer Service
- NYC Lien Sale & Payment Agreements
- Multi-Family Conservation Program
- Dispute Resolution
- Learn About AMR
- Dispose of Grease & Oil Properly
- For Businesses
- More Services...

Date:

Please be advised that your request is important to us and will be processed as expeditiously as possible. However, because of the volume of requests received by the NYC DEP, your acknowledgement letter may be delayed. A denial, in whole or in part, may be appealed within 30 days of the determination by writing to the NYC DEP FOIL Appeals Officer, at 59-17 Junction Blvd., 19th Fl., Flushing, NY 11373



Search input field with a green GO button

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- News
- Capital Projects
- Careers at DEP
- Environmental Reviews
- Interagency MOUs
- A to Z Index
- Contact Us

Dear Sir or Madam

We hereby acknowledge receipt of your Freedom of Information Law ("FOIL") request submitted online. Your request is important to us and will be handled as expeditiously as possible. Please be advised however, that because of the large volume of pending complex FOIL requests handled by the Department of Environmental Protection, and the available staffing, your response is anticipated to take between 120-150 days from the date of this acknowledgement.

Sincerely,
Deborah S. Fremder
Records Access Officer

My DEP Account and Online Bill Pay

New Payment Options

Reservoir Levels

Current: 85.5%
Normal: 86.6%

Customer Assistance

- Contact Customer Service
- NYC Lien Sale & Payment Agreements
- Multi-Family Conservation Program
- Dispute Resolution
- Learn About AMR
- Dispose of Grease & Oil Properly
- For Businesses
- More Services...



NEW YORK CITY DEPARTMENT OF HEALTH AND MENTAL HYGIENE

For office use only
CONTROL NUMBER:

[Empty box for control number]

FREEDOM OF INFORMATION LAW REQUEST FORM

To: Records Access Officer
NYC Department of Health and Mental Hygiene
42-09 28th Street, 14th Floor, CN 31
Long Island City, NY 11101
Phone: (347) 396-6078/6116
Fax: (347) 396-6087
recordsaccess@health.nyc.gov

Date 08 / 05 / 16

Dear Record Access Officer:

I, Adrianna Bosco request copies of any inspection reports and/or records located in the Bureau of _____, of the New York City Department of Health and Mental Hygiene.

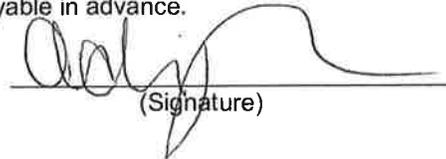
The records pertain to:

- Lead Poisoning
- Animal bite
- Employment/Human Resources
- Contracts/RFPs
- Pest Control
- Correctional Health
- Early Intervention
- Food Safety
- Mental Health
- Communicable Diseases
- School Health
- Day Care
- Other: _____

Please specify/describe the records you are requesting from the above program(s):
Information regarding underground/aboveground storage tanks (USTs/ASTs), spill records, remediation sites, dump sites, soil and groundwater remediation, storage/treatment/disposal of hazardous or hazardous materials activities for the following address:
200 Central Park West, New York, NY 10024 (American Museum of Natural History)

There is a charge of 25¢ per page or actual costs of reproduction, payable in advance.

Requester's Name: Adrianna Bosco
(Please print)


(Signature)

Requester's Organization: AKRF, Inc.

Requester's Address: 440 Park Avenue South 7th Floor, New York, NY 10016
Street City State Zip code

Telephone Number: (646) 388-9576 E-mail: abosco@akrf.com



NEW YORK CITY DEPARTMENT OF
HEALTH AND MENTAL HYGIENE
Mary T. Bassett, MD, MPH
Commissioner

Christopher D'Andrea
Director

Office of Environmental
Investigations
125 Worth St., Room 630
New York, NY 10013

Tel. 1 646 632-6104
Fax 1 646 632-6105

September 8, 2016

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Request No: 2016FR02138

Dear Adrianna Bosco:

In response to your recent request for environmental records on:

- 200 Central Park W, New York, NY

Please note the following:

- The Office of Environmental Investigations has "NO" record of an investigation at the above address.
- Enclosed are copies of the requested records we have on file.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris D'Andrea".

Christopher D'Andrea, MS, CIH
Director

Cc: Renee Bryant



NEW YORK CITY DEPARTMENT OF HEALTH AND MENTAL HYGIENE

For office use only
CONTROL NUMBER:

[Empty box for control number]

FREEDOM OF INFORMATION LAW REQUEST FORM

To: Records Access Officer
NYC Department of Health and Mental Hygiene
42-09 28th Street, 14th Floor, CN 31
Long Island City, NY 11101
Phone: (347) 396-6078/6116
Fax: (347) 396-6087
recordsaccess@health.nyc.gov

Date 08 / 05 / 16

Dear Record Access Officer:

I, Adrianna Bosco request copies of any inspection reports and/or records located in the Bureau of _____, of the New York City Department of Health and Mental Hygiene.

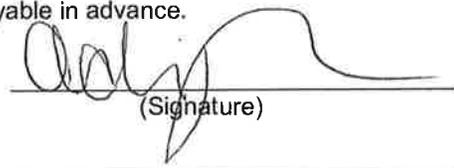
The records pertain to:

- Lead Poisoning
- Animal bite
- Employment/Human Resources
- Contracts/RFPs
- Pest Control
- Correctional Health
- Early Intervention
- Food Safety
- Mental Health
- Communicable Diseases
- School Health
- Day Care
- Other: _____

Please specify/describe the records you are requesting from the above program(s):
Information regarding underground/aboveground storage tanks (USTs/ASTs), spill records, remediation sites, dump sites, soil and groundwater remediation, storage/treatment/disposal of hazardous or hazardous materials activities for the following address:
200 Central Park West, New York, NY 10024 (American Museum of Natural History)

There is a charge of 25¢ per page or actual costs of reproduction, payable in advance.

Requester's Name: Adrianna Bosco
(Please print)


(Signature)

Requester's Organization: AKRF, Inc.

Requester's Address: 440 Park Avenue South 7th Floor, New York, NY 10016
Street City State Zip code

Telephone Number: (646) 388-9576 E-mail: abosco@akrf.com



Department of Health

ANDREW M. CUOMO
Governor

HOWARD A. ZUCKER, M.D., J.D.
Commissioner

SALLY DRESLIN, M.S., R.N.
Executive Deputy Commissioner

August 8, 2016

Adrianna Bosco
AKRF Engineering, P.C.
440 Park Avenue South, 7th Floor
New York, NY 10016

FOIL # 16-08-096
Project # 12166

Dear Ms. Bosco:

This will acknowledge receipt of your request for records under the Freedom of Information Law, received by this office on August 5, 2016.

Your request has been forwarded to the appropriate Department program area(s) to identify documents that are responsive to your request and which may be made available pursuant to all applicable provisions of the Freedom of Information Law.

A determination as to whether your request is granted or denied will be reached in approximately 20 business days or we will notify you in writing if the responsible program area(s) should require additional time to locate, assemble, and review documents that may be responsive to your request.

Please note that, pursuant to Article 6 of the Public Officers Law, a charge may be applied to your request, including the actual cost of the medium used to respond to your Freedom of Information Law request and/or other related costs. When responsive records have been identified, you will be informed of any cost and how payment should be made.

Sincerely,

Danielle L. Rysedorph, Esq.
Records Access Office

DLR/dxd



**Department
of Health**

ANDREW M. CUOMO
Governor

HOWARD A. ZUCKER, M.D., J.D.
Commissioner

SALLY DRESLIN, M.S., R.N.
Executive Deputy Commissioner

September 6, 2016

Adrianna Bosco
AKRF Engineering, P.C.
440 Park Avenue South, 7th Floor
New York, NY 10016

Re: FOIL #: 16-08-096
Your File #: 12166
Re: 200 Central Park West
New York, NY 10024

Dear Ms. Bosco:

This letter responds to your Freedom of Information Law request of August 5, 2016, in which you requested "information regarding underground/aboveground storage tanks (USTs/ASTs), spill records, remediation sites, dump sites, soil and groundwater remediation, storage/treatment/disposal of hazardous materials or hazardous materials activities for the above referenced site." Please be advised that after conducting a diligent search, no records responsive to your request have been located.

The address is served by the New York City public water system, NY7003493. Any violation reports for the public water system can be found here:

http://www.health.ny.gov/environmental/water/drinking/violations/previous_compliance_reports.htm

Should you feel that you have been unlawfully denied access to records, you may appeal such denial in writing within 30 days to the Records Access Appeals Officer, Division of Legal Affairs, Empire State Plaza, 2438 Corning Tower, Albany, New York, 12237-0026.

If you require additional information or wish to discuss this matter further, please do not hesitate to contact me at (518) 474-8734.

Sincerely,



Danielle L. Rysedorph, Esq.
Records Access Office

DLR/lm



Environmental and Planning Consultants

440 Park Avenue South
7th Floor
New York, NY 10016
tel: 212 696-0670
fax: 212 213-3191
www.akrf.com

August 5, 2016

Records Access Office
New York State Department of Health
Corning Tower Room 2364
Albany, New York 12237-0044
518-486-9144 (fax)

Sent by e-mail

Re: FOIL Request
Project No.: 12166
200 Central Park West, New York, NY 10024 (American Museum of Natural History)

Dear Sir or Madam:

Pursuant to the Freedom of Information Law, we are requesting information regarding underground/aboveground storage tanks (USTs/ASTs), spill records, remediation sites, dump sites, soil and groundwater remediation, storage/treatment/disposal of hazardous materials or hazardous materials activities for the above referenced site. Your response can either be faxed to (212) 726-0942 or mailed to the address identified above as soon as possible. Please notify me if there are any costs associated with processing this request. In addition, please indicate AKRF's project number (**12166**) on all correspondence. If you have any questions, please call me at (646) 388-9576.

Thank you in advance for your assistance and cooperation.

Sincerely,
AKRF, Inc.

A handwritten signature in black ink that reads "Adrianna Bosco".

Adrianna Bosco
Environmental Scientist

Environmental Site Assessment – Site Questionnaire

Please answer all questions to the best of your actual knowledge. Please call with any questions or comments.

AKRF Contact: Eric Park
Office phone: 800-899-2573
Cell phone: 800-899-2573

Person completing questionnaire: American Museum of Natural History (AMNH) Personnel

Relationship to the site: Coordinated responses from Senior Director of Capital Projects & Construction and Senior Director of Human Resources

Length of time associated with the site: Sr. Dir. Capital Projects & Construction - About 5 years

- 1) When were the current buildings constructed? Do you have surveyed drawings? Blueprints? Geotechnical subsurface studies?

Section 11 – 1927
Section 11B – 1992
Section 15A – 1965
Section 15 – 1903
Section 17 – 1931
Section 7A 1905
Section 7 – 1900

No to all.

- 2) Have there been any renovation or additions since initial construction?

Requires Clarification.

- 3) Is there any historic fill on-site? (Construction and demolition debris? Ash? Dredge spoils?)

Not certain – not aware of any historic fill under any of the buildings.

- 4) Have there been any asbestos or lead assessment or abatement activities at the property? If there is asbestos on-site do you have an operations and maintenance plan?

Yes, we have an asbestos management plan.

- 5) Please describe land use at the property prior to construction of the current buildings.

City property.

- 6) Please describe activities at the site since construction of the current buildings, including previous tenants. Commercial activities such as dry cleaning and auto repair are of particular interest to this study.

AMNH is the first tenant. There is no dry cleaning and auto repair.

- 7) Do you know of specific chemicals that are present or once were present at the property? Yes, we have a full list.

- 8) Do you know of any environmental cleanups that have taken place at the property?

No.

- 9) Do municipal water and sewers service the site, or does it rely on private wells and/or a septic system?

AMNH is on the municipal water and service.

- 10) Are you aware of any wells, public or private, on or near the subject property? Not aware of any in this area.

- 11) Please indicate the nature and frequency of trash removal from the subject property.

Trash is removed from all areas daily. All trash is placed in a 30-yard compactor located in the yard and hauled by a private contractor as needed.

- 12) Are you aware of the current or former use, storage or production of any hazardous materials (petroleum products, solvents, paints, pesticides, etc) in any part of the subject site?

Yes, we have a full list.

- 13) Are any environmental permits or licenses held currently, or in the past, relating to the property?

Yes:

NYSDEC Pesticide Applicator Business Registration Certificate,
NYSDEC Petroleum Bulk Storage Certificate, and
NYSDEC Air Facility Registration Certificate.

- 14) Are there any registrations held for underground or above ground storage tanks at the property (NYSDEC, NYCDOB, FDNY)?

Yes we have registration for NYSDEC and FDNY.

- 15) Have any previous environmental reports, audits or investigations been performed at the site? If available, please provide copies, preferably prior to the site visit.

Yes: NYS onsite inspection for aboveground and underground diesel storage.

- 16) Does the site or any part of the site operate under a community right-to-know plan, safety plan, preparedness and prevention plan, spill prevention, countermeasure or control plan?

Yes to all.

- 17) Does the property have any activity and use limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?

NYC Landmarks and Parks

- 18) Are you aware of any reports regarding hydrogeologic or geotechnical conditions on the property or surrounding area?

No

- 19) Please provide copies of any notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the property or relating environmental liens encumbering the property.

Attached are correspondence:

NYSDEC – Re: Petroleum Bulk Storage; 05/02/2013, 05/24/2013, & 05/28/2013

EPA – Re: Information request during September 2010 audit

- 20) Please provide copies of any hazardous waste generator notices or reports.

Safety Director has on file.

Requires Clarification.

- 21) Please advise of:

- a. any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on or from the property,

No

- b. any pending, threatened or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property; and

None

- c. any notices from any government entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

Yes – NYSDEC notice, same as #19.

- 22) Have any environmental liens been filed or recorded against the property under federal, tribal, state or local law?

No

- 23) Are you aware of value reduction on the property due to environmental issues?

N/A

24) Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?

N/A

25) Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

No

26) Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the property?

No

APPENDIX E
CITY DIRECTORIES

200 Central Park West

200 Central Park West
New York, NY 10024

Inquiry Number: 4334893.1
June 24, 2015

The EDR-City Directory Abstract

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2013. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 100 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

| <u>Year</u> | <u>Source</u> | <u>TP</u> | <u>Adjoining</u> | <u>Text Abstract</u> | <u>Source Image</u> |
|-------------|--|-----------|------------------|----------------------|---------------------|
| 2013 | Cole Information Services | X | - | X | - |
| 2008 | Cole Information Services | X | - | X | - |
| 2006 | Hill-Donnelly Information Services | X | - | X | - |
| 2000 | Cole Information Services | X | - | X | - |
| 1998 | NYNEX Telephone | X | - | X | - |
| 1996 | NYNEX | - | - | - | - |
| 1993 | NYNEX Telephone | - | - | - | - |
| 1988 | NYNEX Telephone | - | X | X | - |
| 1978 | New York Telephone | - | - | - | - |
| 1973 | New York Telephone | - | X | X | - |
| 1968 | New York Telephone | - | - | - | - |
| 1963 | New York Telephone | - | X | X | - |
| 1958 | New York Telephone | - | - | - | - |
| 1956 | New York Telephone | - | - | - | - |
| 1950 | New York Telephone | X | - | X | - |
| 1947 | New York Telephone | - | - | - | - |
| 1942 | New York Telephone | - | - | - | - |
| 1938 | New York Telephone | - | - | - | - |
| 1934 | R. L. Polk & Co. | - | - | - | - |
| 1931 | Manhattan and Bronx Directory Publishing Company Residential Directory | - | X | X | - |
| 1927 | New York Telephone | - | - | - | - |
| 1923 | R. L. Polk & Co. | - | - | - | - |
| 1920 | R. L. Polk & Co. | - | - | - | - |

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

200 Central Park West
New York, NY 10024

FINDINGS DETAIL

Target Property research detail.

CENTRAL PARK

200 CENTRAL PARK

| <u>Year</u> | <u>Uses</u> | <u>Source</u> |
|-------------|------------------------|--------------------|
| 1983 | Friedman C H arbitrato | New York Telephone |
| | Jaye S | New York Telephone |

CENTRAL PARK W

200 CENTRAL PARK W

| <u>Year</u> | <u>Uses</u> | <u>Source</u> |
|-------------|------------------------------------|------------------------------------|
| 2013 | AMERICAN MUSEUM OF NATURAL HISTORY | Cole Information Services |
| | RABBIT HILL INC | Cole Information Services |
| | RICHTER ROBERT DDS | Cole Information Services |
| | YITZ AUTO REPAIR | Cole Information Services |
| 2008 | ACTIVE AUTOMOTIVE CUSTOMIZING INC | Cole Information Services |
| | JEROME LUSTBADER | Cole Information Services |
| | MAGGIO JOHN J DR | Cole Information Services |
| | RAWDIN ROBERT C | Cole Information Services |
| 2006 | Active Automotive Customizing | Hill-Donnelly Information Services |
| | h Volk Kardyn | Hill-Donnelly Information Services |
| | Kekalos A | Hill-Donnelly Information Services |
| | Mon Myat MD I P | Hill-Donnelly Information Services |
| | Multi Unit Address | Hill-Donnelly Information Services |
| | Number 28 C h Boren E | Hill-Donnelly Information Services |
| | Richter Robert AA | Hill-Donnelly Information Services |
| | Weinberg Laurence | Hill-Donnelly Information Services |
| | Wienberg Laurence | Hill-Donnelly Information Services |
| | Yitz Auto Repair is | Hill-Donnelly Information Services |
| 2000 | A KEKALOS | Cole Information Services |

FINDINGS

| <u>Year</u> | <u>Uses</u> | <u>Source</u> |
|-------------|------------------|--------------------|
| 1983 | Frankel & Eidman | New York Telephone |
| | MARKS B | New York Telephone |

CENTRAL PIKE W

200 CENTRAL PIKE W

| <u>Year</u> | <u>Uses</u> | <u>Source</u> |
|-------------|---|--------------------|
| 1998 | ASTRO WATERPROOFING & RESTORATION CORP | NYNEX Telephone |
| 1950 | EIBSCHUTZ NATHAN MRS | New York Telephone |

W CENTRAL PARK

200 W CENTRAL PARK

| <u>Year</u> | <u>Uses</u> | <u>Source</u> |
|-------------|----------------------------|--------------------|
| 1983 | Atloy Corp | New York Telephone |
| | Marks B | New York Telephone |
| | Urban Vertical Parking Inc | New York Telephone |

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

CENTRAL PARK W

202 CENTRAL PARK W

| <u>Year</u> | <u>Uses</u> | <u>Source</u> |
|-------------|--------------------|--|
| 1973 | EVERS WALTER | New York Telephone |
| 1931 | STAVISKY PAULINE F | Manhattan and Bronx Directory Publishing Company Residential Directory |
| | SINGER CLARA | Manhattan and Bronx Directory Publishing Company Residential Directory |
| | SIMSON FANNIE C | Manhattan and Bronx Directory Publishing Company Residential Directory |
| | MAY RUTH | Manhattan and Bronx Directory Publishing Company Residential Directory |

CENTRAL PIKE W

201 CENTRAL PIKE W

| <u>Year</u> | <u>Uses</u> | <u>Source</u> |
|-------------|--------------------|-----------------|
| 1988 | LEADER SIDNEY D DR | NYNEX Telephone |

202 CENTRAL PIKE W

| <u>Year</u> | <u>Uses</u> | <u>Source</u> |
|-------------|-------------------|--------------------|
| 1973 | BLEIBTREU JACOB | New York Telephone |
| | COHEN GODFREY MRS | New York Telephone |
| 1963 | ROSEN WINIFRED | New York Telephone |
| | WINTON GABRIEL | New York Telephone |

W CENTRAL PARK

202 W CENTRAL PARK

| <u>Year</u> | <u>Uses</u> | <u>Source</u> |
|-------------|--------------------|--|
| 1931 | Stavisky Pauline F | Manhattan and Bronx Directory Publishing Company Residential Directory |
| | Singer Clara | Manhattan and Bronx Directory Publishing Company Residential Directory |
| | Simson Fannie C | Manhattan and Bronx Directory Publishing Company Residential Directory |
| | May Ruth | Manhattan and Bronx Directory Publishing Company Residential Directory |

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched

200 Central Park West

Address Not Identified in Research Source

1996, 1993, 1988, 1978, 1973, 1968, 1963, 1958, 1956, 1947, 1942, 1938, 1934, 1931, 1927, 1923, 1920

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched

201 CENTRAL PIKE W

Address Not Identified in Research Source

2013, 2008, 2006, 2000, 1998, 1996, 1993, 1983, 1978, 1973, 1968, 1963, 1958, 1956, 1950, 1947, 1942, 1938, 1934, 1931, 1927, 1923, 1920

202 CENTRAL PARK W

2013, 2008, 2006, 2000, 1998, 1996, 1993, 1988, 1983, 1978, 1968, 1963, 1958, 1956, 1950, 1947, 1942, 1938, 1934, 1927, 1923, 1920

202 CENTRAL PIKE W

2013, 2008, 2006, 2000, 1998, 1996, 1993, 1988, 1983, 1978, 1968, 1958, 1956, 1950, 1947, 1942, 1938, 1934, 1931, 1927, 1923, 1920

202 W CENTRAL PARK

2013, 2008, 2006, 2000, 1998, 1996, 1993, 1988, 1983, 1978, 1973, 1968, 1963, 1958, 1956, 1950, 1947, 1942, 1938, 1934, 1927, 1923, 1920

**GEOPHYSICAL SURVEY
AMERICAN MUSEUM OF NATURAL HISTORY
NEW YORK, NEW YORK**

Prepared for:

Langan Environmental & Engineering Services
21 Penn Plaza
360 West 31st Street, 8th Floor
New York, New York 10001

Prepared by:

Hager-Richter Geoscience, Inc.
846 Main Street
Fords, New Jersey 08863

File 16MA17
March, 2017

HAGER-RICHTER GEOSCIENCE, INC.

GEOPHYSICISTS FOR THE ENGINEERING COMMUNITY

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RE: Geophysical Survey
American Museum of Natural History
New York, New York

Dear Mr. Singer:

In this letter, we report the results of a geophysical survey conducted in February, 2017 by Hager-Richter Geoscience, Inc. (H-R) at the American Museum of Natural History (AMNH) in support of an expansion project for the museum by Langan Environmental & Engineering Services, Inc. (Langan). The scope of the project and area of interest were specified by Langan.

INTRODUCTION

Langan was interested in determining the locations of subsurface utilities in the accessible portions of specified areas of interest (AOIs) at the AMNH. The AOIs include a loading dock/employee yard, adjacent park area, and some interior areas of the facility. The designated interior areas were located east of the main yard of the loading dock, in Building 15. Large portions of the interior areas were inaccessible due to storage and collection materials. The only interior areas included in the survey were the X-ray room and the Ichthyology Collections Lab. The areas combined are over 56,000 sq ft in size.

Langan was interested in determining, if possible, the depth and horizontal locations of existing sewer pipes and utility tunnels. The general location of the Site is shown in Figure 1. Figure 2 is a site plan showing the approximate limits of the geophysical survey areas.

OBJECTIVES

The objectives of the geophysical survey were to detect, and if detected, to determine, if possible, the depth and horizontal locations of existing sewer pipes and utility tunnels within the accessible portions of specified AOIs

THE SURVEY

Alexis Martinez and Amanda Fabian of Hager-Richter conducted the field operations on February 6-8, 2017. The project was coordinated with Mr. Samuel Singer of Langan. Mr. Singer specified the AOIs and was present on site at the commencement of the survey.



Photo 1. Main yard of the Loading Dock area.



Photo 2. Looking west into area located south of Building 11.



Photo 3. Park area near 79th Street entrance.

The geophysical survey was conducted using three complementary geophysical methods: time domain electromagnetic induction (EM61), ground penetrating radar (GPR), and precision utility location (PUL). EM61 data were acquired only in the park area located northwest of the loading dock/employee yard but not in the loading dock and interior areas because the reinforced concrete surfaces and walls present therein would interfere with the EM61 data. The EM61 data were acquired at approximately 8-inch intervals along lines spaced 5 feet apart in the accessible portions of the AOI. The EM survey detects and outlines areas containing buried metal. However, the EM method cannot provide information on the type of objects causing EM anomalies.

GPR data were acquired along traverses oriented in two mutually perpendicular directions and spaced no more than 5 feet apart across the accessible portions of the specified AOIs. Large portions of the interior areas were inaccessible. Sparsely located GPR traverses were conducted in a small X-ray room and an Ichthyology Collections Lab where space allowed. The GPR method is useful for detecting both metallic and non-metallic subsurface objects.



Photo 4. X-Ray Room.



Photo 5. Ichthyology Collections Lab.

The PUL method was used to search for subsurface utilities by searching for signals from active electric lines and by tracing utilities from direct connections to nearby surface features

such as valves and conduits. The locations of PUL detected utilities were marked on the ground at the time of the survey and are shown in Plate 1.

EQUIPMENT

EM61. For the EM61 survey, we used a Geonics EM61-MK2 time domain electromagnetic induction metal detector. The EM61 is a time-domain electromagnetic induction type instrument designed specifically for detecting buried metal objects. An air-cored 1-meter by ½-meter transmitter coil generates a pulsed primary magnetic field in the earth, thereby inducing eddy currents in nearby metal objects. The decay of the eddy current produces a secondary magnetic field that is sensed by two receiver coils, one coincident with the transmitter and one positioned 40 cm above the main coil. By measuring the secondary magnetic field after the current in the ground has dissipated but before the current in metal objects has dissipated, the instrument responds only to the secondary magnetic field produced by metal objects. Four channels of secondary response are measured in mV and are recorded on a digital data logger. The system is generally operated by pushing the coils as a wagon with an odometer mounted on the axle to trigger the data logger automatically at approximately 8-inch intervals.

GPR. The GPR survey was conducted using a Geophysical Survey Systems, Inc. UtilityScan HS system using a Hyper Stacking antenna with central frequency of 350 MHz and a 100 ns¹ time window. The system includes a survey wheel that triggers the recording of the data at fixed intervals, thereby increasing the accuracy of the locations of features detected along the survey lines.

GPR uses a high-frequency electromagnetic pulse (referred to herein as “radar signal”) transmitted from a radar antenna to probe the subsurface. The transmitted radar signals are reflected from subsurface interfaces of materials with contrasting electrical properties. The travel times of the radar signal can be converted to *approximate* depth below the surface by correlation with targets of known depths, including stratigraphic horizons, pipes, cables, and other utilities, or by using handbook values of velocities for the materials in the subsurface. The acquisition of GPR data was monitored in the field on a graphic recorder and the real time images were immediately available for field use. The GPR data were also recorded digitally for subsequent processing. Interpretation of the records is based on the nature and intensity of the reflected signals and on the resulting patterns.

PUL. The PUL survey was conducted using a precision electromagnetic pipe and cable locator, Radiodetection RD7000 series. The RD7000 series consists of separate transmitter and receiver. The system can be used in "passive" and "active" modes to locate buried pipes by

¹ ns, abbreviation for nanosecond, 1/1,000,000,000 second. Light and the GPR signal require about 1 ns to travel 1 ft in air. The GPR signal requires about 3.5 ns to travel 1 ft in unsaturated sandy soil.

detecting electromagnetic signals carried by the pipes. In the "passive" mode, only the receiver unit is used to detect signals carried by the pipe from nearby power lines, live signals transmitted along underground power cables, or very low frequency radio signals resulting from long wave radio transmissions that flow along buried conductors. In the "active" mode of operation, the transmitter is used to induce a signal on a target pipe, and the receiver is used to trace the signal along the length of the pipe. Our system uses a 10W transmitter.

LIMITATIONS OF THE METHODS

HAGER-RICHTER GEOSCIENCE, INC. MAKES NO GUARANTEE THAT ALL SUBSURFACE TARGETS OF INTEREST WERE DETECTED IN THIS SURVEY. HAGER-RICHTER GEOSCIENCE, INC. IS NOT RESPONSIBLE FOR DETECTING SUBSURFACE TARGETS THAT NORMALLY CANNOT BE DETECTED BY THE METHODS EMPLOYED OR THAT CANNOT BE DETECTED BECAUSE OF SITE CONDITIONS. GPR SIGNAL PENETRATION MAY NOT BE DEEP ENOUGH TO DETECT SOME TARGETS. HAGER-RICHTER GEOSCIENCE, INC. IS NOT RESPONSIBLE FOR MAINTAINING FIELD MARKOUTS AFTER LEAVING THE WORK AREA. LANGAN UNDERSTANDS THAT MARK-OUTS MADE DURING INCLEMENT WEATHER OR IN AREAS OF HIGH PEDESTRIAN OR VEHICULAR TRAFFIC MAY NOT LAST.

Field mark-outs. Utilities detected by the PUL method at the time of the survey are marked in the field, and the operator makes every attempt, field conditions permitting, to detect and mark as many utilities as possible at the time of survey. Adverse weather and site conditions (rain, snow, snow and soil piles, uneven surfaces, high traffic, etc.) can hamper in-field interpretation. Utility mark-outs made on wet pavement, snow, snow piles, gravel surfaces, or in active construction zones may not last. H-R is not responsible for maintaining utility mark-outs after leaving the work area.

EM61. All electromagnetic geophysical methods, including the EM method used here, are affected by the presence of power lines and surface metal objects (steel sided buildings, dumpsters, vehicles, railroad tracks, reinforced concrete, etc.). Where such are present, the effects of materials in the subsurface may be masked, and firm conclusions about subsurface conditions cannot be made.

Detection and identification should be clearly differentiated. Detection is the recognition of the presence of a metal object, and the electromagnetic method is excellent for such purposes. Identification, on the other hand, is determination of the nature of the causative body (i.e., what is the body -- a cache of drums, UST, automobile, white goods, etc.?). Although the EM61 data cannot be used to *identify* buried metal objects, they provide excellent guides to the identification

of some objects. For example, buried metal utilities produce anomalies with lengths many times their widths.

GPR. There are limitations of the GPR technique as used to detect and/or locate targets such as those of the objectives of this survey: (1) surface conditions, (2) electrical conductivity of the ground, (3) contrast of the electrical properties of the target and the surrounding soil, and (4) spacing of the traverses. Of these restrictions, only the last is controllable by us.

The condition of the ground surface can affect the quality of the GPR data and the depth of penetration of the GPR signal. Sites covered with snow piles, high grass, bushes, landscape structures, debris, obstacles, soil mounds, etc. limit the survey access and the coupling of the GPR antenna with the ground. In many cases, the GPR signal will not penetrate below concrete pavement, especially inside buildings, and a target may not be detectable. The GPR method also commonly does not provide useful data under canopies found at some facilities. GPR surveys inside buildings may be severely constrained by space limitations and interference from above-grade structures.

The electrical conductivity of the ground determines the attenuation of the GPR signals, and thereby limits the maximum depth of exploration. For example, the GPR signal does not penetrate clay-rich soils, and targets buried in clay might not be detected.

A definite contrast in the electrical conductivities of the surrounding ground and the target material is required to obtain a reflection of the GPR signal. If the contrast is too small, possibly due to construction details or deeply corroded metal in the target, then the reflection may be too weak to recognize and the target can be missed. In many cases, plastic, clay, asbestos concrete (transite), brick-lined, stone-lined, and other non-metallic utilities cannot be detected.

Spacing of the traverses is limited by access at many sites, but where flexibility of traverse spacing is possible, the spacing is adjusted to the size of the target. The GPR operator controls the spacing between lines, and the design of the survey is based on the dimensions of the smallest feature of interest. Targets with dimensions smaller than the spacing between GPR survey lines can be missed.

PUL. The PUL equipment cannot detect non-metallic utilities, such as pipes constructed of vitrified clay, transite, plastic, PVC, fiberglass, and unreinforced concrete, when used in passive mode alone. Such pipes can be detected if a wire tracer is installed with access to such tracer for transmission of a signal or where access (such as floor drains and clean-outs) permits insertion of a device on which a signal can be transmitted.

In some, but not all, cases, the subsurface utility designation equipment cannot detect metal utilities reliably under reinforced concrete because the signal couples onto the metal

reinforcing in the concrete. Similarly, the method commonly cannot be used adjacent to grounded metal structures such as chain link fences and metal guardrails.

In congested areas, where several utilities are bundled or located within a short distance, the signal transmitted on one utility can couple onto adjacent utilities, and the accuracy of the location indicated by the instrument decreases.

RESULTS

The geophysical survey was conducted using three complementary geophysical methods: EM61, GPR and PUL. The EM61 survey was limited to the park area to avoid electromagnetic interference from reinforced concrete surfaces and building walls in the loading dock and interior areas. The GPR survey was conducted across the accessible portions of the specified AOIs. The PUL method was also used to track utilities present in the AOIs. Figure 3 is a color contour plot of the results of the EM61 survey, and Plate 1 shows the limits of the EM survey area, locations of the GPR traverses, and the integrated interpretation of the geophysical data.

EM61. The EM61 data were acquired at approximately 8-inch intervals along survey lines spaced 5 feet apart across the accessible portions of the survey area. Interpretation of EM61 data is based on the *relative* response of the instrument in millivolts to local conditions. The instrument is not calibrated to provide an absolute measure of a particular property, such as the conductivity of the soil or the strength of the earth's magnetic field. Subsurface metal objects produce sharply defined positive anomalies when the EM61 is positioned directly over them. Acquiring data at short intervals along closely spaced lines, as was done at the subject site, provides high spatial resolution of the location and footprint of the targets. Thus, buried metal is recognized in contour plots of EM61 data by positive anomalies with spatial dimensions roughly corresponding to the dimensions of the buried metal.

Several moderate to high amplitude EM anomalies are evident for the areas of interest. Some of the EM anomalies are attributed to surface metal objects such as fences, bollards, electric boxes, etc. and such areas are shown as blue hatched areas on Figure 3. We note that the presence or absence of subsurface metal objects in such areas cannot be determined on the basis of the EM data alone because of the anomaly caused by the surface metal objects.

Relatively high amplitude linear EM anomalies are present in the areas surveyed and are attributed to buried possible utilities. The utilities at those locations were confirmed with the GPR and/or PUL methods. Their locations are shown in Plate 1. An up-side-down L-shaped, mid to high amplitude EM anomaly located in the center of the park area is attributed to buried metal. The anomaly is consistent with a subsurface passageway area labeled, "08-LL-11 Shooting Gallery/Storage: Collections Vertebrate Paleontology" shown on the Lower Level Plan provided by Langan, entitled, "160329 Area for Radar Detection - Aperture Plan."

GPR: Apparent GPR signal penetration was variable with two-way travel-time reflections ranging from approximately 10-40 ns in the concrete paved areas and 20 to 40 ns in the grassy areas. Based on velocity matching calibrations made for the areas, the GPR signal penetration is estimated to be approximately 1 - 4 feet. The GPR signal penetration across a reportedly known utility tunnel in a portion of the loading dock area was better than other areas with two-way travel-time reflections ranging from approximately 60-70 ns. . Based on velocity matching calibrations made for the area, the GPR signal penetration is estimated to be approximately 6 - 7 feet.

The locations of the GPR traverses and our interpretation of the data are shown in Plate 1. Most of the utilities detected with the PUL and EM61 methods were also detected with the GPR. Possible electric and other unidentified utility segments were also detected.

The GPR records exhibit linear alignments of reflections attributed to possible utilities or segments of utilities. Two parallel utilities were detected trending northeast across the loading dock beneath the location of a known utility tunnel. The utilities were detected at approximately 7 feet below surface. Review of the GPR records did not reveal any similar utilities which might indicate the location of other utility tunnels.

The GPR records consistent with the location of the L-shaped EM anomaly were reviewed in office. A possible utility was detected along the west edge of the anomaly. No clear records indicating the presence of a subsurface structure or passageway were observed.

Other reflections typical for segments of utilities were detected, and their locations are shown in Plate 1. Whether utilities or other subsurface objects occur at a depth greater than the effective depth of penetration of the GPR signal or in areas inaccessible to the geophysical survey cannot be determined from the GPR data.

PUL. The PUL transmitter was attached to known utilities in exterior portions of the site, (e.g., light poles, electrical boxes and conduits, etc.) and the resultant signal was traced with the receiver. We also conducted a PUL survey in “passive” mode, in the exterior and interior AOIs to detect signals carried by utilities from nearby power lines and telecommunication lines. Several attempts were made to trace utilities from conduits in the loading dock/employee yard area. Reinforcement in the concrete ground surface caused significant interference for the PUL equipment. No utilities were traced in the loading dock area. Where possible, manholes were opened to observe visual alignment of possible utilities. The sections of sewer utilities shown on Plate 1 are based solely on visual alignment from observations in manholes. Several electric lines were marked on the ground with spray paint in the park area and their locations are shown on Plate 1.

CONCLUSIONS

Based on the geophysical survey performed by Hager-Richter Geoscience, Inc. at the American Museum of Natural History, in New York, New York, we conclude that:

- Two possible utilities, consistent with the location of a known utility tunnel, were detected in the loading dock area. However, no other utility tunnel was detected in the surveyed areas.
- Segments of possible electric and sewer utilities were detected in the loading dock area.
- A large buried metal anomaly consistent with a known subsurface structure/passageway was detected in the park area.
- Several electric utilities were detected in the park area.
- Segments of possible utilities were detected in each of the areas.

LIMITATIONS ON THE USE OF THIS REPORT

This letter report was prepared for the exclusive use of Langan Engineering and Environmental Services, Inc. (Client). No other party shall be entitled to rely on this Report or any information, documents, records, data, interpretations, advice or opinions given to Client by Hager-Richter Geoscience, Inc. (Hager-Richter) in the performance of its work. The Report relates solely to the specific project for which Hager-Richter has been retained and shall not be used or relied upon by Client or any third party for any variation or extension of this project, any other project or any other purpose without the express written permission of Hager-Richter. Any unpermitted use by Client or any third party shall be at Client's or such third party's own risk and without any liability to Hager-Richter.

Hager-Richter has used reasonable care, skill, competence and judgment in the performance of its services for this project consistent with professional standards for those providing similar services at the same time, in the same locale, and under like circumstances. Unless otherwise stated, the work performed by Hager-Richter should be understood to be exploratory and interpretational in character and any results, findings or recommendations contained in this Report or resulting from the work proposed may include decisions which are judgmental in nature and not necessarily based solely on pure science or engineering. It should be noted that our conclusions might be modified if subsurface conditions were better delineated with additional subsurface exploration including, but not limited to, test pits, soil borings with collection of soil and water samples, and laboratory testing.

Except as expressly provided in this limitations section, Hager-Richter makes no other representation or warranty of any kind whatsoever, oral or written, expressed or implied; and all implied warranties of merchantability and fitness for a particular purpose, are hereby disclaimed.

If you have any questions or comments on this letter report, please contact us at your convenience. We look forward to working with you again in the future.

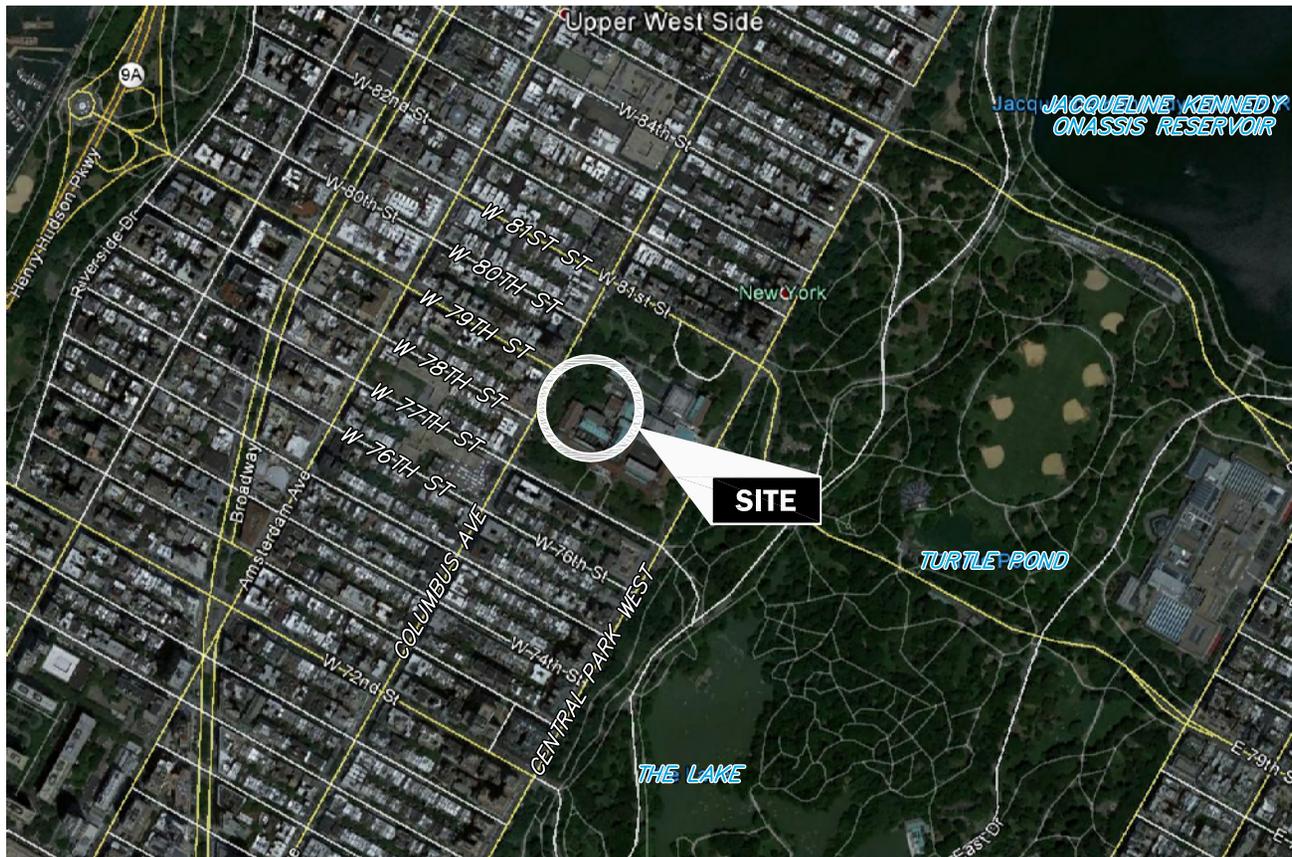
Sincerely yours,
HAGER-RICHTER GEOSCIENCE, INC.



Alexis Martinez
Senior Geophysicist

Dorothy Richter, P.G.
President

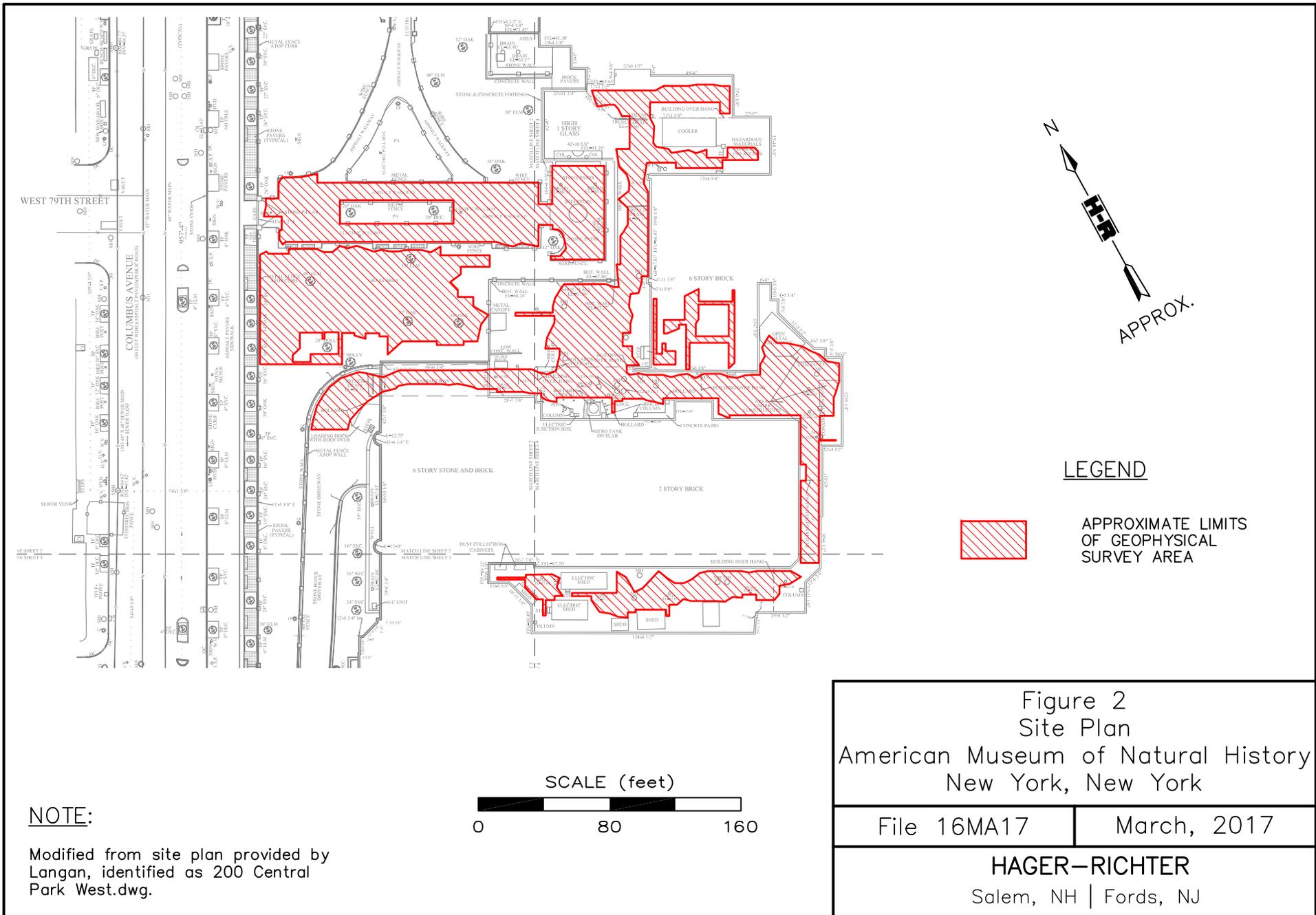
Attachments: Figures 1 - 3
Plate 1

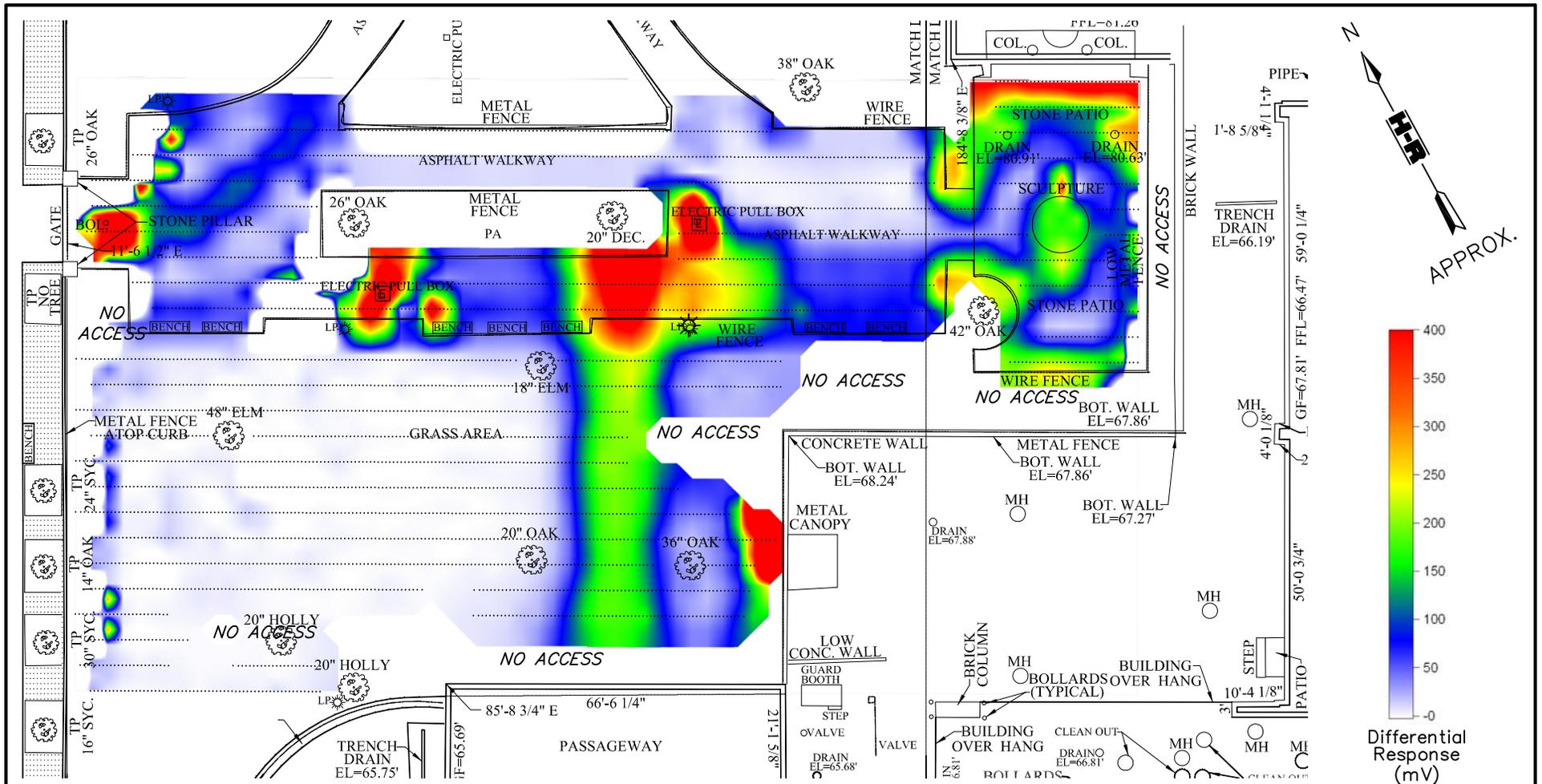


NOTE:

Modified from Google Earth Pro aerial photograph.

| | |
|--|-------------|
| <p>Figure 1 General Site Location American Museum of Natural History New York, New York</p> | |
| File 16MA17 | March, 2017 |
| <p>HAGER-RICHTER Salem, NH Fords, NJ</p> | |





NOTES:

1. Modified from site plan provided by Langan, identified as 200 Central Park West.dwg.
2. Data were acquired with Geonics EM61-MK2. Differential response shown.
3. Differential response equals top coil response – bottom coil response.

LEGEND

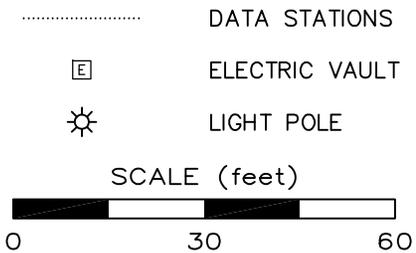
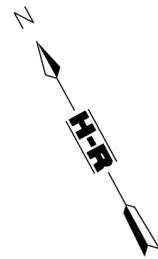
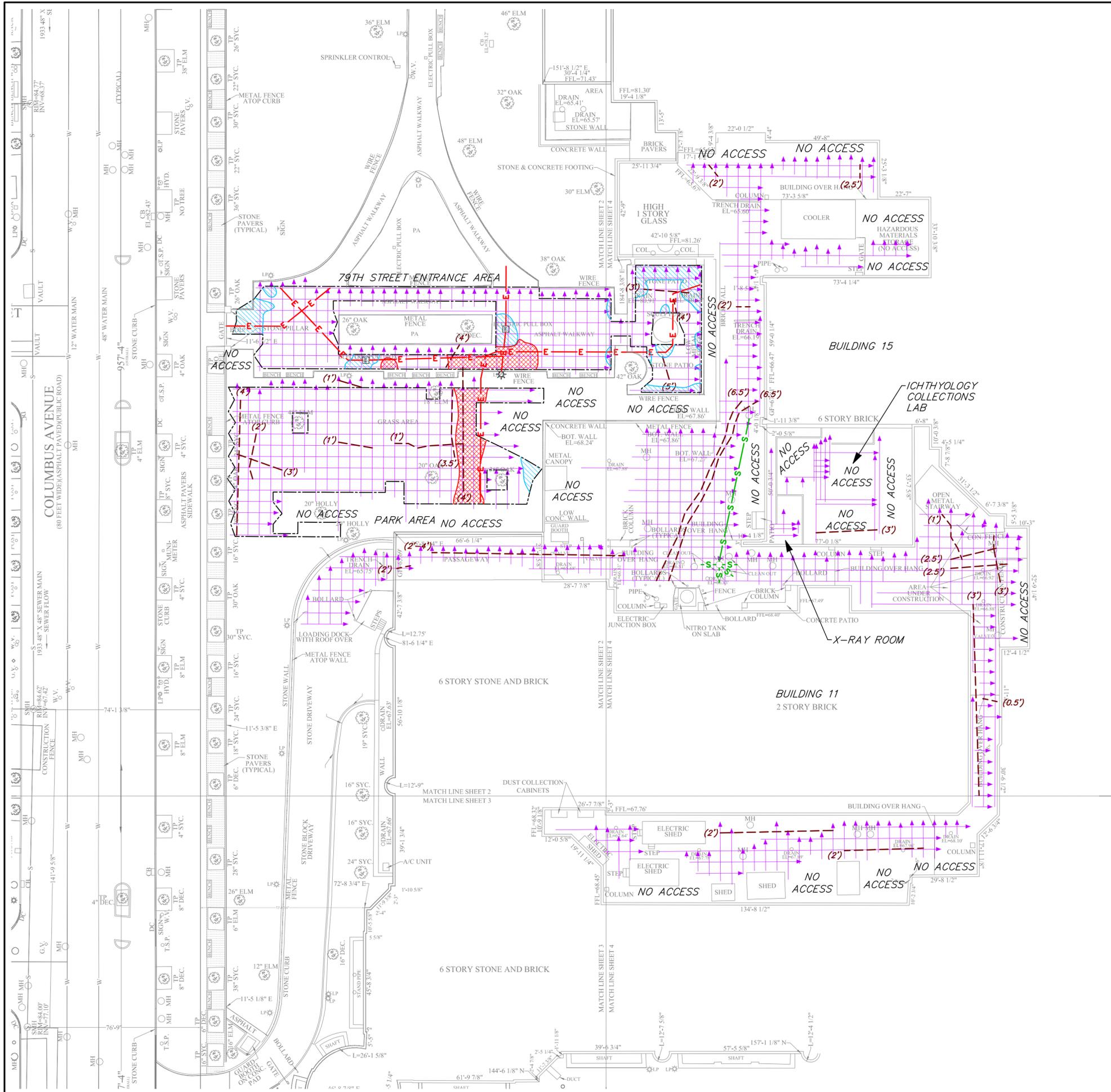


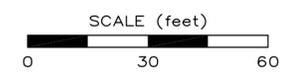
Figure 3
 EM Survey
 American Museum of Natural History
 New York, New York

| | |
|---|-------------|
| File 16MA17 | March, 2017 |
| HAGER-RICHTER Salem, NH Fords, NJ | |



LEGEND

- APPROXIMATE LIMITS OF EM SURVEY AREA
- GPR TRAVERSE
- AREA OF POSSIBLE BURIED METAL
- ELECTRIC LINE
- SEWER LINE
- POSSIBLE UTILITY WITH APPROXIMATE DEPTH
- EM ANOMALY ATTRIBUTED TO EFFECTS OF SURFACE OBJECTS. THE PRESENCE OR ABSENCE OF BURIED METAL WITHIN THIS AREA CANNOT BE DETERMINED ON THE BASIS OF THE EM61 DATA ALONE.
- ELECTRIC VAULT
- LIGHT POLE



NOTE:
 Modified from site plan provided by Langan, identified as 200 Central Park West.dwg.

| | |
|--|-------------|
| PLATE 1 GPR SURVEY & INTEGRATED INTERPRETATION AMERICAN MUSEUM OF NATURAL HISTORY NEW YORK, NEW YORK | |
| FILE 16MA17 | MARCH, 2017 |
| HAGER-RICHTER SALEM, NH FORDS, NJ | |

GEOTECHNICAL ENGINEERING STUDY

for

American Museum of Natural History Gilder Center New York, New York

Prepared For:

Davis Brody Bond, LLP
Architects and Planners
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New York, NY 10004

Prepared By:

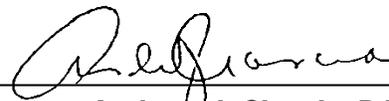
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LANGAN

26 April 2017
170132489

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DRAWINGS

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Drawing No. 2 Colton Map (1836)
Drawing No. 3 Viele Map (1865)
Drawing No. 4 USGS Bedrock Map
Drawing No. 5 Subsurface Exploration Plan
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Drawing No. 13 Boring Key and Legend

APPENDICES

Appendix A Boring Logs and Well Construction Logs
Appendix B Test Pit Sketches, Descriptions, and Photos
Appendix C Laboratory Test Results

INTRODUCTION

Langan Engineering, Environmental, Survey and Landscape Architecture, D.P.C. (Langan) presents the results of our geotechnical engineering study for the proposed Gilder Center for Science, Education and Innovation (SEIC) development at the American Museum of Natural History in Manhattan, New York. The report summarizes our evaluation of the subsurface conditions and presents our geotechnical recommendations related to foundation design and construction.

Our understanding of the project is based on a review of architectural drawings provided by Davis Brody Bond Architecture, LLP (DBB), the project architect, and structural drawings provided by Arup, the project structural engineer.

Elevations referenced in this report are taken from a topographic survey prepared by Fehringer Surveying, P.C, last revised on 6 March 2017, and are given in reference to the North American Vertical Datum of 1988 (NAVD 88)¹. Elevations referenced in this report were interpolated between points, and should be considered estimated rather than precise.

SITE DESCRIPTION

The project site is on the western side of the American Museum of Natural History (AMNH), which is within Theodore Roosevelt Park. The 17.5-acre park occupies the entire city block bordered by West 81st Street to the north, Columbus Avenue to the west, West 77th Street to the south, and Central Park West to the east (NYC Tax Map Block 1130, Lot 1). The museum is designated as a landmark by the New York City Landmark Preservation Commission (LPC)². Also, the site is within the Central Park West Historic District³. A site location map is presented as Figure 1 below and is attached to this report as Drawing No. 1.

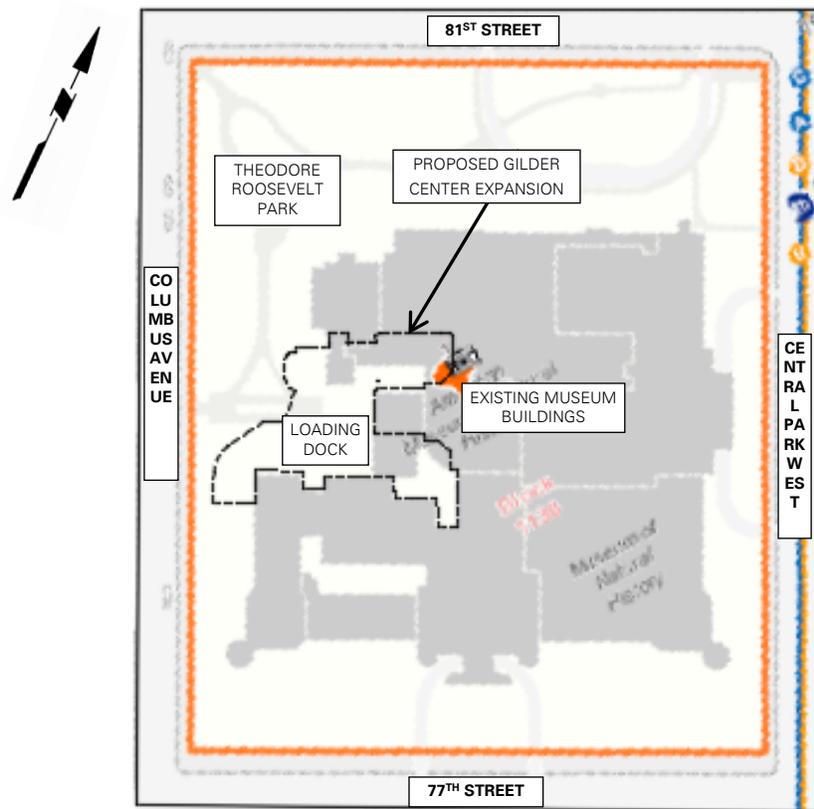
The AMNH complex comprises 26 interconnected buildings (identified as 1 through 13 (including 2A, 2B, 3A, 7A, 11A, and 11B) and 15 through 20 (including 15A)). The buildings were all constructed between 1877 and 2000 and are surrounded by the landscaped park and connecting walkways leading from the sidewalks encircling Theodore Roosevelt Park. Grades along the Columbus Avenue sidewalk fronting Theodore Roosevelt Park are generally about el 86. Topography in the park generally slopes downward toward the museum buildings, with grades between el 81 and 86.

¹ NAVD 88 is 1.1 feet above the U.S. Coast and Geodetic Survey Datum mean sea level at Sandy Hook, New Jersey, 1929, (NGVD).

² Per the NYC Landmarks Preservation Commission Upper West Side/Central Park West Historic District Designation Report, designated 24 April 1990.

³ Per the NYC Landmarks Preservation Commission Report LP-0282, designated 24 August 1967.

Figure 1: Site Location Map



An approximately 20,000-square-foot depressed “loading dock” is west of Buildings 1, 7, 7A, 15, and 15A, north of Buildings 8, 11, and 11B, and south of Buildings 16 and 17. The loading dock is about 13 to 16 feet below park grade, corresponding to about el 65 to 69, and separated from the park by a concrete retaining wall. AMNH buildings adjacent to the loading dock have cellars accessible to the loading dock. Utilities and utility trenches run beneath the loading dock slab and connect mechanical, electrical, and plumbing services between museum buildings and from Columbus Avenue.

West of Building 8, a vehicle ramp provides access from the intersection of Columbus Avenue and West 79th Street to the loading dock. The ramp is separated from the park by a stone gravity retaining wall. An elevated landscaped area between Building 8 and the vehicle ramp is supported by a concrete retaining wall.

Site History

A review of historical records and maps indicates that Theodore Roosevelt Park was initially mapped as park land in 1807 and later developed into Manhattan Square by the City of New York circa 1839. A review of the historic “Topographical Map of the City and County of New York” (Colton, 1836) and “Sanitary & Topographical Map of the City and Island of New York” (Viele, 1865) indicates that the site was previously marsh and meadow. The meadow grade tapered downward toward marsh to the western part of the

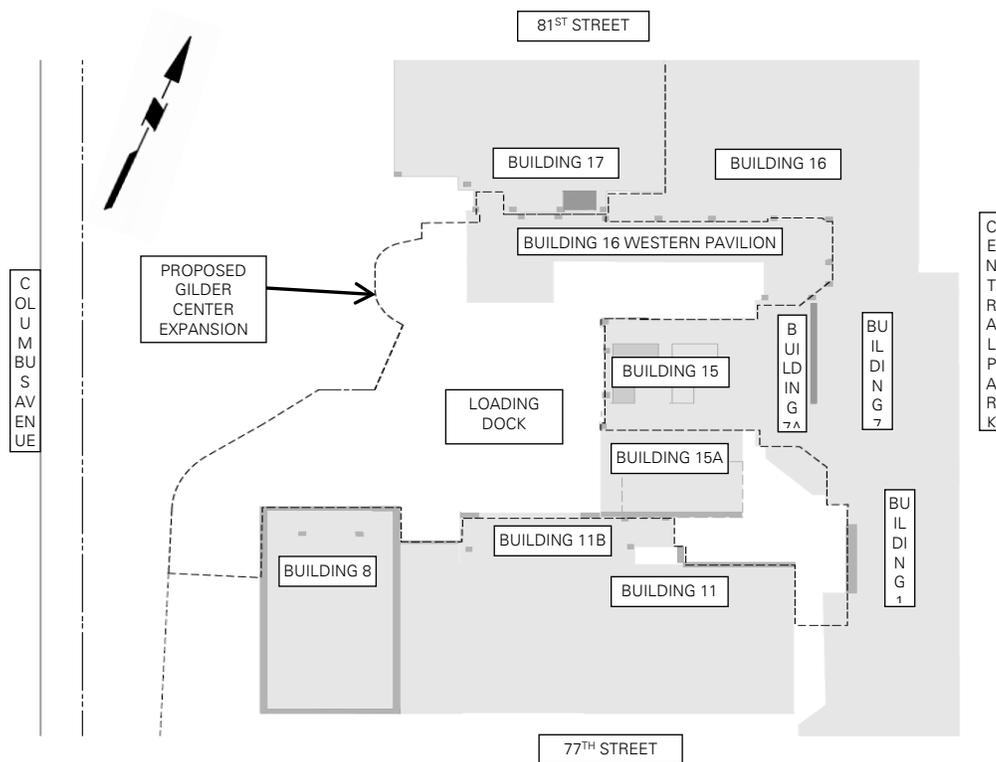
loading dock footprint. Relevant parts of the Colton Map and Viele Map are presented as Drawings Nos. 2 and 3, respectively.

The first museum buildings were constructed on Manhattan Square in the 1870s. Expansion of the museum continued through the late 19th century and into the 20th with additional buildings that connect to the initial museum. Manhattan Square was renamed Theodore Roosevelt Park in 1958.

Structures Adjacent to the Proposed Development

As discussed here, several AMNH buildings surround the project site. We have included a site plan as Figure 2, showing the buildings that are adjacent to or within the proposed Gilder Center footprint.

Figure 2: Site Plan



These are descriptions of the adjacent buildings:

- Building 1 (east of the proposed development), constructed circa 1877, is six-stories with one cellar at about el 67, with access to the loading dock.
- Building 7 (east of the proposed development), built circa 1908, is six-stories with one cellar between about el 61 and 68. An exterior stair tower connects to the southwest corner of this building.
- Building 7A (within the eastern portion of the proposed development), built circa 1908, is two -stories with one cellar (at about el 68) connecting to Buildings 7 and 15. The

cellar serves as mechanical space

- Building 8 (south of the proposed development), built circa 1900, is six-stories with one cellar from about el 66 to 68 with access to the loading dock. An enclosed fire stair was constructed circa 1970 to the exterior of the northeast corner of this building, and a vehicle ramp from Columbus Avenue curves under an overhang at the north end of the building.

A tunnel (that was a former rifle range) with an L-shaped footprint below the park extends about 110 feet from the north end of the Building 8 overhang. The tunnel floor is at about el 70 with access to the loading dock.

- Building 11 (south of the proposed development), built circa 1929, is six-stories with one cellar (at about el 67.5 to 68.5) with access to the loading dock.
- Building 11B (south of the proposed development), built circa 1991, is six-stories and is supported by columns that extend down to the loading dock at about el 67.5 to 68.5.
- Buildings 15 and 15A (within the eastern part of the proposed development), built circa 1931, is two-stories with one cellar, which serves as a boiler room and mechanical space (at about el 64 to 68) with access to the loading dock.
- Building 16 (north and east of the proposed development), built circa 1997, is two-stories with one cellar (at about el 63 to 68) with access to the loading dock.

An expansion of Building 16 was constructed circa 1997 to the west of Building 16 and south of Building 17. The expansion is two-stories and is supported by columns that extend down to the loading dock. The loading dock grade beneath the expansion is at about el 65 to 68.

A one-story glass pavilion with one cellar is at the western end of the expansion. The first floor of the pavilion is at about el 83 and has access to the park. A sprinkler and plumbing utility room occupies the cellar at about el 65 with access to the loading dock.

- Building 17 (north of the proposed development), built circa 1928, is six-stories with one cellar (at about el 65 to 68), with access to the loading dock. A service elevator pit at the southern perimeter of the building is at about el 62.

PROPOSED CONSTRUCTION

The proposed Gilder Center will be a five-story building with one cellar (below the existing park grade). The approximate 49,000-square-foot footprint is proposed in the park west of the existing loading dock and will include new columns inside Buildings 7A and 15. The proposed top of the cellar slab elevation is planned to be about el 64.5; with a general subgrade about 2 feet lower (about el 62.5). We understand that various pits within the structure may extend as deep as 15 feet below the cellar slab (e.g., mechanical, elevator, detention pits, etc.).

These are the proposed construction activities:

- Partially demolish Buildings 7A and 15 down to the first floor;
- Demolish Building 15A;
- Demolish the stair tower adjacent to the west of Building 7;
- Demolish the Building 16 western expansion;
- Demolish the concrete retaining walls that separate the park and loading dock;
- Construct the Gilder Center;
- Re-grade the ramp from Columbus Avenue to the new cellar, including new adjacent landscaping;
- Construct a new retaining wall at the lower portion of the vehicular ramp that connects the existing stone retaining wall to the new foundation wall;
- Relocate utilities; and
- Re-grade and landscape in the park to the west of the proposed Gilder Center.

Proposed typical column loads were reported by Arup to be between about 140 and 3,500 kips.

SUBSURFACE EXPLORATION

The subsurface exploration program for the proposed development consisted of drilling nine borings, installing three groundwater observation wells, and excavating 19 test pits. The Subsurface Exploration Plan is presented as Drawing No. 5.

Borings

The borings (LB-1 through LB-7, SLB-1, and SLB-2) were completed by Aquifer Drilling and Testing, Inc. (ADT) from 2 February through 1 March 2017 under the full-time special inspection of Langan. Borings LB-5, LB-6, and LB-7 were drilled from the loading dock grade to about 21 to 35 feet below top of slab. The remaining borings (LB-1 through LB-4) were drilled within the park, west of the loading dock, to about 36 to 60 feet below park grade. Borings SLB-1 and SLB-2 were located about 20 to 30 feet east of the Theodore Roosevelt Park western property line for the proposed stormwater detention tank; the two borings were drilled to about 12 to 18 feet below park grade.

All borings were advanced through soil using mud-rotary drilling techniques and a tri-cone roller bit. Drilling fluid and steel casing were used to provide support for the sidewalls of the borehole during drilling. Standard Penetration Tests (SPT)⁴ N-values were measured and soil samples were obtained continuously through the top 12 feet and at 5-foot intervals thereafter. Soil samples were retrieved using a 2-inch-diameter standard split-spoon sampler driven by a 140-pound steel donut hammer in accordance with ASTM D1586.

⁴ The Standard Penetration Test is a measure of the soil density and consistency. The SPT N-value is defined as the number of blows required to drive a 2-inch outside diameter split-barrel sampler 12-inches, after an initial penetration of 6 inches, using a 140 lb hammer falling freely from a height of 30 inches.

A minimum of 10 feet of rock was cored in Borings LB-1 through LB-7, using an NQ-sized double-tube core barrel. The core barrel was equipped with a diamond cutting bit, in accordance with ASTM D2113. Rock Recoveries (REC)⁵ and Rock Quality Designations (RQD)⁶ were determined for each core run.

Recovered soil samples were visually examined and classified in the field by our engineer, in accordance with the Unified Soil Classification System (USCS) and the city Building Code. All soil samples and rock cores were returned to our New York City office for confirmation of field classifications. Soil and rock classifications, N-values, and other field observations were recorded on the boring logs, which are presented in Appendix A.

Observation Wells

Three groundwater observation wells were installed in completed boreholes LB-1, LB-4, and LB-7. Each well consisted of 10 feet of 2-inch-diameter Schedule 40 PVC slotted pipe (screen) and 10 to 50 feet of solid riser pipe. The annulus around the pipe was backfilled with silica sand to about 2 feet above the screen, sealed with a 1- to 2-foot-thick layer of bentonite pellets, backfilled with soil cuttings, and sealed with 1 foot of grout at grade to prevent surface water from influencing the well readings. A protective flush-mounted steel well cap was installed flush with the adjacent ground surface. Observation well construction logs are provided in Appendix A.

Test Pits

Fourteen test pits (TP-1 through TP-14) were excavated within the proposed Gilder Center footprint adjacent to existing AMNH buildings. The purposes of the test pits were to document the configuration of the existing footings and bearing materials bordering the new building. ADT hand-excavated the test pits from 31 January through 10 March 2017 under the full-time special inspection of Langan. The test pits were excavated to about 3 to 12 feet below grade.

Five additional test pits (LTP-1 through LTP-5) were hand-excavated up to 3 feet deep in the park. The purpose of Test Pits LTP-1 through LTP-5 was for Reed Hilderbrand (the project landscape architect) to document properties of the surficial soils. A representative from Reed Hilderbrand was at the site to observe the test pits on 6 and 7 March 2017. We understand that the findings from these test pits will be documented by Reed Hilderbrand.

Observed conditions in the building test pits were documented by Langan using sketches and photographs. Representative soil samples were collected from the test pits and classified in accordance with USCS and the Building Code. Upon completion of sampling, the test pits were backfilled and compacted in lifts and patched with concrete and

⁵ The recovery is the percentage of the length of the recovered core to the total length of the core run.

⁶ The Rock Quality Designation is a modified core recovery percentage in which all pieces of sound core over 4 inches are counted as recovery.

reinforcement to match the adjacent existing slab. Sketches, representative photographs, and descriptions of each test pit are provided in Appendix B.

Laboratory Testing

Geotechnical laboratory tests were conducted on representative soil and rock samples to verify soil classifications and to determine engineering characteristics of the soil and rock for use in our geotechnical evaluation and design. The following geotechnical laboratory tests were performed:

- Soil Classification (ASTM D2487)
- Sieve and Hydrometer Analysis (ASTM D422)
- Water Content (ASTM D2216)
- Liquid and Plastic (Atterberg) Limits (ASTM D4318)
- Uniaxial Compressive Strength of Rock (ASTM D7012C)
- Electrical Resistivity of Soil (ASTM G57).

The laboratory test results are presented in Appendix C.

SUBSURFACE CONDITIONS

The generalized subsurface soil profile consists of a layer of uncontrolled fill underlain by varying amounts of clay and sand down to bedrock. A layer of decomposed rock was encountered above the sound bedrock at the site. A description of each stratum is given below in order of increasing depth. Representative subsurface profiles are presented as Drawings Nos. 6, 7, and 8.

Uncontrolled Fill [Class 7]

A layer of uncontrolled fill, consisting generally of brown medium to fine sand with varying amounts of silt, gravel, rock fragments, and debris (e.g., concrete, brick, masonry) was encountered from about 6 to 21 feet below park grade and 3 to 7 feet below loading dock grade, corresponding to about el 60 to 79. SPT N-values in the fill were from 8 blows per foot (bpf) to spoon refusal (greater than 100 blows per 6 inches of spilt-spoon sampler penetration), averaging about 20 bpf. The large range in N-values is likely due to the variable nature of the uncontrolled fill and the presence of obstructions such as gravel, rock fragments and debris impeding advancement of the split-spoon sampler.

Moisture content in the fill was from 19 to 27%, and averaged about 23%. Electrical resistivity averaged about 3,800 ohm-cm and electrical conductivity averaged about 0.00026 ohm-cm⁻¹.

The fill is loose material classified as Building Code Class 7, Controlled and Uncontrolled Fills.

Sand [Class 3a and 3b]

A layer of brown medium to fine sand with various amounts of silt, clay, and trace gravel was encountered below the fill where rock was not encountered directly below the fill in Borings LB-1 through LB-6. The top of the sand was encountered between el 58 and 62. The sand layer is between about 2 and 25 feet thick. N-values within the layer were from 14 to over 100 bpf generally increasing with depth, and averaging about 35 bpf. Cobbles and boulders were encountered throughout the layer. Moisture content was from 19 to 26%, and averaged about 23%. Electrical resistivity averaged about 1,150 ohm-cm and electrical conductivity averaged about 0.00088 ohm-cm⁻¹.

The sand layer was given USCS classifications of SM (silty sand), SP (poorly graded sand), and SW (well-graded sand). The sand is generally classified as Building Code Class 3b, Medium-Dense Granular Soils and Building Code Class 3a, Dense Granular Soils.

One- to 3-foot-thick lenses of gray clay with trace amounts of silt and sand were encountered in the upper parts of the sand layer in Borings LB-1 through LB-6. N-values within the clay generally were from 11 to 27 bpf, and averaged about 18 bpf. Liquid Limits (LL) was from 27 to 35%, and averaged about 31%; Plastic Limits (PL) were from 18 to 20%, and averaged about 19%; and Plasticity Indexes (PI) were from 9 to 15, and averaged about 12.

The clay lenses were given a USCS classification of CL (clay). The clay is generally classified as Building Code Class 4b. An N-value of 3 bpf was recorded in the clay in Boring LB-6, indicative of soft clay, which is classified as Building Code Class 6.

Decomposed Rock [Class 1d]

A 2- to 14-foot-thick layer of decomposed rock was encountered below the fill layer or sand layer (where encountered) on top of competent bedrock. The decomposed rock is typically characterized as gray coarse- to fine-grained, highly fractured, and highly weathered mica schist. The top of the decomposed rock at the proposed Gilder Center footprint was encountered at about 20 to 48 feet below park grade and 2 to 30 feet below loading dock grade, corresponding to about el 35 to 64. The top of the decomposed rock at the proposed stormwater detention basin was encountered at about 7 to 10 feet below park grade, corresponding to about el 75 to 79. Within the mid-western portion of the site, several borings encountered the top of decomposed rock (and sound bedrock) at a deeper elevation (compared to the eastern portion) indicative of a "valley" of rock within a portion of the park. N-values within the layer are generally over 100 bpf. Rock core recoveries (REC) varied between 10 and 43%. The corresponding rock quality designations (RQD) varied between 0 and 20%. The decomposed rock is classified as Building Code Class 1d, Soft Rock.

Bedrock [Class 1a, 1b, and 1c]

The competent bedrock, encountered below the decomposed rock, is typically characterized as gray medium- to fine-grained mica schist with quartz intrusions. The bedrock was generally slightly to moderately fractured and fresh to moderately weathered. The top of competent bedrock at the proposed Gilder Center footprint typically was about 20 to 50 feet below park grade and 3 to 30 feet below loading dock grade, corresponding to about el 31 to 64. As discussed herein, within the mid-western portion of the site, several borings encountered the top of decomposed rock and sound bedrock at a deeper elevation (compared to the eastern portion) indicative of a “valley” of rock within a portion of the park. The top of bedrock at the proposed stormwater detention basin was encountered at about 12 to 18 feet below park grade, corresponding to about el 68 to 73.

Rock core recovery varied between 93 and 100%, averaging about 98%. The corresponding RQD varied between 70 and 100%, averaging about 88%. Uniaxial compressive strength values from lab tests averaged about 12,000 psi.

The bedrock is classified as Building Code Class 1a, 1b, and 1c – Hard Rock, Medium-Hardness Rock, and Intermediate-Hardness Rock, respectively. Part of the USGS bedrock geology information map prepared by Charles A. Baskerville is provided as Drawing No. 4 for reference.

Groundwater

Groundwater measurements were recorded in three observation wells and test pits during our subsurface exploration. Water was measured to be about 4 to 10 feet below loading dock grade, corresponding to about el 57 to 64 – near the top of the rock or the clay where clay was encountered. The measured water depths are indicative that groundwater is likely perched near the top of rock or clay.

Test Pit Findings

Table No. 1 summarizes the test pits findings at each building and structure. Test-pit sketches, photographs, and detailed descriptions are provided in Appendix B.

Table No. 1: Test Pit Findings Summary

| Test Pit | Location | Foundation Type | Foundation Bearing Material | Bottom of Foundation (Depth) [Elevation] |
|-----------------|--|---|------------------------------------|---|
| TP-1A | <i>Building 17</i> South of south wall, adjacent to the elevator pit; and at a column for the <i>Building 16 overhang</i> | <i>Building 17:</i> Concrete Footing beneath the elevator pit <i>Building 16 Column:</i> Concrete Spread Footing | Competent Rock | Building 16: (6) [60] Building 17: (10.5) [55.5] |
| TP-2 | <i>Building 16</i> Interior column in the | Concrete Spread Footing | Competent Rock | Int. Column: (4) [60] |

| | | | | |
|------|---|--|--|--|
| | southwestern portion of the cellar parking lot | | | |
| TP-3 | <i>Building 15</i> Adjacent to the dynamo foundation and interior column | <i>Dynamo: Concrete Mat Interior Column: Brick and Concrete Spread Footing</i> | <i>Dynamo: Soil Interior Column: Decomposed Rock</i> | Dynamo: (4) [64] Int. Column: (12) [58] |
| TP-4 | <i>Building 7A</i> West of the east wall, and adjacent to the perpendicular wall | <i>East Wall: Concrete Strip Footing Perpendicular Wall: Stone/rubble Footing</i> | <i>East Wall: Soil Perpendicular Wall: Decomposed Rock</i> | <i>East Wall: (5.5) [62.5] Perp. Wall: (8) [59]</i> |
| TP-5 | <i>Building 15/15A</i> West of the west wall, adjacent to a column | Stone/rubble Footing | Decomposed Rock | East Wall Col.: (12) [57] |
| TP-6 | <i>Building 7A</i> West of the southwest corner, north of the stair tower | <i>Corner of South and West Wall: Concrete Footing West Wall: Concrete Strip Footing</i> | Competent Rock | South and West Wall Corner.: (4) [63] West Wall: (7) [60] |
| TP-7 | <i>Building 1</i> West of the west wall | Concrete Strip Footing | Competent Rock | West Wall: (1.5) [65.5] |
| TP-8 | <i>Building 11B</i> Northwest column | Concrete Spread Footing | Competent Rock | Column: (6.5) [60.5] |

| | | | | |
|-------|---|------------------------|----------------|----------------------------|
| TP-9 | <i>Building 8</i> South of north wall, adjacent to tunnel | Concrete Strip Footing | Competent Rock | North Wall: (4) [62] |
| TP-10 | <i>Building 8</i> Northeast corner of the northeast fire stair | Concrete Strip Footing | Competent Rock | NE Corner: (4.5) [62.5] |
| TP-11 | <i>Building 11</i> North of north wall | Concrete Strip Footing | Competent Rock | North Wall: (3.5) [63.5] |
| TP-12 | <i>Stone Gravity Retaining Wall</i> East of north curve at vehicular ramp | Concrete Strip Footing | Competent Rock | Retaining Wall: (2) [67] |
| TP-13 | <i>Concrete Landscaping Retaining Wall</i> North end of vehicular ramp | Concrete Strip Footing | Competent Rock | Retaining Wall: (2) [68.5] |
| TP-14 | <i>Concrete Landscaping Retaining Wall</i> Mid-south portion of vehicular ramp | Concrete Strip Footing | Competent Rock | Retaining Wall: (1) [74] |

SEISMIC EVALUATION

This section presents the results of our seismic evaluation relative to the general procedures outlined in the Building Code. We have assigned the proposed structure to have a Structural Occupancy Category III. Table No. 2 provides our recommended parameters for use in seismic design of the proposed building.

Table No. 2 - Building Code Seismic Design Parameters

| Seismic Design Parameter | Recommended Value | 2014 NYCBC Reference |
|---|-------------------|------------------------------------|
| Mapped Spectral Acceleration for short periods (S_s) | 0.281 g | Section 1613.5.1 |
| Mapped Spectral Acceleration for 1-second period (S_1) | 0.073 g | |
| Site Class | C | Table 1613.5.2 |
| Site Coefficient for short periods (F_a) | 1.2 | Tables 1613.5.3(1) and 1613.5.3(2) |
| Site Coefficient for 1-second period (F_v) | 1.7 | |
| Design spectral response acceleration at short periods (S_{DS}) | 0.225 g | Section 1613.5.4 |
| Design spectral response acceleration at 1-sec period (S_{D1}) | 0.083 g | |
| Seismic Design Category | B | Section 1613.5.6 |

Liquefaction Potential

The Building Code requires an evaluation of the liquefaction potential for noncohesive soils below the groundwater table and to a depth of 50 feet below the ground surface. In accordance with the Building Code screening process for liquefaction, SPT N-values are plotted versus depth on the Liquefaction Assessment Diagram. The plotted data points are classified as either "Liquefaction evaluation required" or "Liquefaction evaluation not required," based on whether the points plot to the left or right side, respectively, of the Structural Risk/Occupancy Category line for the proposed building. About half of the points above a depth of 10 feet plot to the left of the Structural Risk/Occupancy Category III line, "Liquefaction evaluation required." This plot is provided as Drawing No. 9.

The potential for soil liquefaction was further evaluated using the procedure outlined by Youd et al. (2001). The Youd et al. evaluation is considered to be the "State of Practice" procedure as recommended by the National Earthquake Hazard Reduction Program (NEHRP). This evaluation presents an empirical relationship between the earthquake demand, represented by the Cyclic Stress Ratio (CSR), and the soil's resistance to dynamic loading, represented by the Cyclic Resistance Ratio (CRR). The CSR is correlated to the Peak Ground Acceleration (PGA) of the design earthquake event and in situ stresses. The CRR is correlated to SPT N-values, and adjusted for soil overburden pressure, hammer energy efficiency, and percent of silts and clays.

The potential for soil liquefaction was evaluated using an earthquake event of magnitude 5.71, a PGA of 0.20g, and a Magnitude Scaling Factor of 2.25. Based on the Youd et al. evaluation, all of the points have a factor of safety greater than one. It is our judgment that liquefaction is unlikely and will not impact the foundation design. A plot of the factor of safety with depth using the Youd et al. (2001) procedure is provided as Drawing No. 10.

FOUNDATIONS DESIGN AND RECOMMENDATIONS

The following sections present our recommendations for design and construction of the foundation system, slab support, below-grade walls, groundwater control, and retaining walls.

Foundation Evaluation and Design

Depth to competent bedrock is noted to be highly variable throughout the proposed Gilder Center footprint. A majority of the existing surrounding buildings are founded on bedrock; however the rock was deeper in a majority of the open-air courtyard. In summary, the top of bedrock was encountered at about the proposed cellar level in the southwestern and southeastern parts of the proposed footprint, up to 10 feet below the proposed cellar in the northern part of the proposed footprint; and about 30 feet or greater below the proposed cellar in the mid-western part of the proposed footprint.

Because of the variability of the depth to rock and the thicknesses in soil layers we have evaluated several foundation options. We anticipate that the final foundation selections will likely be a combination of foundation types. We evaluated the following foundation options:

1. *Shallow Foundations* -
 - a. Bearing on competent/decomposed rock (where rock is shallow):
 - b. Bearing within the sand layer (per discussions with Arup, potentially feasible for loads less than 250 tons);
 - c. Mat slab foundation bearing within the sand layer; and
2. *Deep Foundations* - caissons socketed into competent rock (where rock is deep)

Multiple foundation elements on varying bearing materials will settle and deflect differently. Typically, the greater the differential settlements, the greater the adverse effects on the structure. For example, settlements of shallow foundations bearing on sand are a result of elastic compression of the sand strata, while caissons deflect only when fully loaded. Estimated settlements for the shallow foundations are largely dependent on the footing and/or mat foundation size and depth.

Based on the proposed loading reported by Arup, differential settlements of adjacent foundation elements bearing on dissimilar materials (i.e. rock and sand) is estimated to be up to about 1-inch⁷. However, estimated differential settlements decrease to less than about ½-inch if all foundation elements are bearing-on or socketed into either decomposed or competent bedrock. Recommendations and evaluation for each foundation type listed above are discussed below.

⁷ We note that this estimated differential settlement is based on the assumption of a foundation bearing on bedrock (footing or piles) and compared to a shallow foundation load of less than 250 tons bearing on the natural sand layer; and spaced about 25 feet apart.

Shallow Foundations

When bedrock is within 10 feet from the proposed cellar slab level, the recommended foundation support is footings and/or piers bearing on competent bedrock. The recommended allowable bearing capacity for foundations bearing on competent rock is up to 20 tons per square foot (tsf). Based on the proposed individual column loading, estimated settlements are expected to be less than ¼-inch.

Alternatively, as discussed herein, we have also reviewed the proposed loading if a shallow foundation was to bear on the sand or decomposed rock layer. The recommended bearing capacity for shallow foundations bearing on the decomposed rock layer is 8 tsf. We note that in some cases at the site, sound bedrock may be 2 to 5 feet deeper; therefore local excavation through the decomposed rock down to the sound bedrock would offer a higher bearing capacity and less differential settlement. Based on the proposed column loads, estimated settlements of shallow foundations bearing on decomposed rock are anticipated to be on the order of less than ½-inch.

For lightly loaded columns (loads less than 250 tons) where the project team considers excavation to top of decomposed or competent rock not feasible, shallow foundations could bear on the medium-dense to dense sand layer. The recommended allowable bearing capacity for the natural sand layer is up to 4 tsf. Estimated settlements for footings (with loads of less than 250 tons) bearing on sand are anticipated to be on the order of 1-inch. For shallow foundations bearing in sand with loads greater than 250 tons, we would expect much higher settlements.

Bearing areas of shallow foundations may need to be expanded as a mat foundation that encompasses multiple columns to limit settlement to levels determined acceptable by Arup. A preliminary modulus of subgrade reaction of 90 psi/inch may be used for design of a mat foundation bearing in the sand. Once the foundation loading and column layouts have been finalized, we recommend that Langan review the loading and advise on whether revisions to the subgrade modulus value are warranted.

Footings and piers should have a minimum bearing area of 9-square-feet and a minimum width of 2 feet. Where adjacent footings are constructed at different depths, the higher footing should be constructed no higher than a line drawn at 2-feet offset from the edge of the footing at a slope of 1.5-horizontal to 1-vertical from 2-feet offset from the bottom of the lower footing to minimize risk of loading the footing. Where a proposed footing is adjacent to an existing footing bearing on rock, the bottom of the proposed footing should not be higher than the bottom of the existing adjacent footing. The influence zone for new footings with respect to adjacent footings in soil is shown on Drawing No. 11.

The Building Code requires that a Professional Engineer licensed in the state of New York inspect and approve foundation subgrades before placing concrete, to verify that the subgrade material is adequate to provide the recommended allowable bearing pressure. Footing subgrades should be prepared as described in the "Subgrade Preparation" section within this report.

Deep Foundations

A deep foundation element, such as a drilled caisson, is a feasible foundation option where the project team considers bedrock is too deep to construct piers to bedrock. A drilled caisson is a deep foundation element that consists of an open-ended steel casing section drilled a minimum of one-foot into competent bedrock. A rock socket is then drilled into the competent bedrock. The structural load is transferred to the bedrock through the rock socket. Once the required rock socket depth is achieved, the rock socket is visually inspected, and the inside of the caisson is filled with cement grout and steel reinforcement.

The Building Code requires that a Professional Engineer licensed in the state of New York visually inspect each rock socket to verify rock quality and approve the installation of each caisson. Load tests may be substituted for inspection of rock sockets; however, we recommend visual inspection of the rock sockets to verify rock quality.

Table No. 3 presents caisson types for a range of axial capacities. Estimated deflections of the proposed caisson options provided in Table 2 are up to about ½-inch. Other caisson configurations may be feasible to provide the desired capacity. The design uplift and lateral capacity for the caissons should be evaluated once the foundation loads and caisson layout are finalized to account for group impacts.

Table No. 3: Caisson Options

| Socket Diameter (inches) | Estimated Design Capacity (tons) | | |
|--------------------------|-----------------------------------|----------------------|----------------------|
| | Minimum Rock Socket Length (feet) | | |
| | 5 | 10 | 15 |
| 8 | 150 (2-#18 Bar) | 240 (2-#24 Bars) | * |
| 11 | 200 (2-#18 Bar) | 350 (3-#20 Bars) | 450 (4-#24 Bars) |
| 12 | 225 (1-#28 Bar) | 400 (3-#24 Bars) | 500 (4-#24 Bars) |
| 16 | 300 (1-#28 Bar) | 600 (6-#20 Bar) | 750 (6-#24 Bar) |
| 22 | 400 (1-#20 Bar) | 800 (6-#18 Bar) | 1,250 (6-#28 Bar) |
| 28 | 500 (1-#18 Bar) | 1,000 (2-#24 Bar) | 1,500 (6-#28 Bar) |

* The structural capacity limits the capacity of the mini-caisson.

All caisson options listed in Table No. 3 require the use of Grade 50 casing with minimum ½-inch thick walls, cement grout having a 28-day compressive strength of at least 6,000 psi, and Grade 75 thread bar reinforcing steel. Centralizers must be used to keep the

thread bar reinforcing centered in the casing and rock socket. Minimum center-to-center spacing between caissons should be no closer than 2.5 times the casing diameter.

Permanent Tie-Down Anchors

Depending on the final building layout and gravity loading, uplift/tension forces may need to be resolved for the building. Post-tensioned tie-down anchors socketed into bedrock can resist uplift/tension forces, if needed. We recommend double-corrosion-protected, Grade 150 steel threaded bars meeting ASTM A722 requirements for high-strength reinforcement steel.

The free-stressing (unbonded) length should be at least 10 feet long. The free-stressing length of bar should be proportioned such that the dead weight plus the tensile strength of the engaged rock mass is greater than the individual anchor load or the sum of the group anchor loads. Table No. 4 presents the estimated design capacity for three anchor diameter sizes of varying bond lengths. If additional capacity for the anchors is required, revised anchor designs can be provided to the structural engineer during the design phase. **Table No. 4: Recommended Tie-down Design Summary**

| Anchor Hole Diameter (inches) | 150 ksi Steel Thread Bar Diameter (inches) | Structural Capacity (tons) | Bond Length Required (feet) |
|--------------------------------------|---|-----------------------------------|------------------------------------|
| 6 | 1.75 | 100 | 10 |
| 6 | 2.25 | 150 | 15 |
| 7.5 | 2.5 | 200 | 15 |

We recommend that a minimum of 10% of the tie-down anchors be performance-tested to 133% of their design load. All remaining anchors should be proof-tested to 133% of their design load. Successfully tested anchors should be locked off at a load matching or exceeding the sum of the design load, seating loss, and long-term losses. All anchors should be tested and locked-off in accordance with the Post-Tensioning Institute's "Recommendations for Prestressed Rock and Soil Anchors" (2014).

Groundwater Design

The highest measured water level (about el 64) is within one-foot of the proposed cellar. We noted the presence of water in a majority of the test pits excavated at the site. The water is likely perched on top of the rock and clay. Perched water will typically flow towards the lowest elevation of impervious material (rock or clay), and could build up behind below-grade walls if trapped between the walls and the imperious layer. Groundwater is also expected to fluctuate with events such as high precipitation, seasonal variations, construction activity, and/or groundwater pumping. We recommend that the design groundwater level be taken at 3 feet above the highest measured groundwater level, or at about el 67, or about 2 feet above the proposed cellar slab level.

Slab Support

Considering that the cellar slab and various pits will be below the design groundwater table, we recommend that the lowest-level slabs are designed as either a structural slab to resist hydrostatic pressure or as a slab-on-grade with an underslab drainage system. A structural slab would be designed to span between footings, caps and/or, tie-down anchors. If the lowest level slab is designed as a slab-on-grade, an underslab drainage system would be required, as recommended below.

Permanent Below-Grade Walls

Permanent below-grade walls should be designed to resist lateral pressures due to soil and rock loads, groundwater (hydrostatic) loads, and surcharge loads. Dynamic lateral loads need not be considered in accordance with the seismic design requirements for building in Seismic Design Category B.

The recommended design lateral pressures above the groundwater table have a triangular distribution using an equivalent fluid weight of 55 pounds per square foot (psf) per foot of depth of soil. The lateral earth pressures below the groundwater table have a triangular distribution of 25 psf per foot of depth in addition to 63 psf per foot of depth. Lateral rock pressures have a triangular distribution of 18 psf per foot of depth. Surcharge loads (i.e., vehicular, sidewalk, etc.) should be considered in the design of below-grade walls. Lateral pressures caused by a surcharge load have a uniform rectangular distribution of about 50-percent of the vertical surcharge pressure. Our recommended lateral earth-pressure diagram is provided as Drawing No. 12.

Backfill should not be placed against below-grade walls until the concrete has reached its 28-day compressive design strength and after either the first floor slab has been completed, or temporary lateral bracing has been provided to prevent rotation of the wall. Additionally, no backfill should be placed against foundation walls unless approved by the owner's structural engineer.

Permanent Groundwater Control

Given the proposed use of the below-grade space, we recommend that all of the below-grade slabs and walls be fully waterproofed with a membrane-type waterproofing. Possible options for permanent control of groundwater can be accomplished by:

1. Designing the cellar slab and below-grade walls to resist hydrostatic forces resulting from water at the recommended design water level of el 67;
2. Designing the below-grade walls to resist hydrostatic pressures from water at el 67 and providing an underslab drainage system to relieve the hydrostatic pressures under the slab; or
3. Providing a cellar wall drainage system and underslab drainage system to relieve the hydrostatic pressures.

It should be noted that discharging the collected water from a drainage system into the storm sewer system could require the New York City Department of Environmental Protection (NYC DEP) review. We estimate that the pumping rate from the underslab drainage would be a fraction of the proposed project discharge flow to the sewer because the underslab drainage system would collect perched water that builds to the bottom of the proposed slab instead of collecting water below the groundwater table. However, it there is a possibility that the DEP denies the additional pumping from an underslab drainage system if the pumping rate is considered permanent dewatering to the storm sewers.

Underslab Drainage System

If the basement walls and slab are not designed to resist hydrostatic pressures, then a horizontal underslab drainage system should be installed. For the design of the underslab drainage system, we recommend that drainage pipes be placed within a minimum 18-inch thick layer of $\frac{3}{4}$ -inch crushed stone beneath the cellar slab. The drainage pipes should be a minimum 6-inch diameter, Schedule 40, slotted PVC conforming to ASTM D1785. The piping network should be installed beneath the slab with a maximum spacing of 30 feet on center. Typical clean-out fittings should be incorporated into the underslab drainage system at each change in piping direction.

Drainage piping should extend to multiple suitable gravity outlets or to multiple sump pits for removal by pumping. Multiple outlets or sump pits are recommended to provide redundancy into the drainage system should a pipe clog, etc. The sump and pumping system should be designed by the Mechanical Engineer. As this system is a permanent control measure, a duplex pump scheme is recommended to account for maintenance and emergency situations. Power loss and mechanical equipment failures should be considered. If an underslab drainage system is not used, or the NYC DEP does not allow the drainage system to discharge into the storm sewer system, the basement walls and floor slab should be designed to resist a water pressure resulting from the design water level.

Cellar Wall Drainage System

If the cellar walls are not designed to resist hydrostatic pressures, then a vertical drainage system should be installed behind all below-grade walls. Drainage board should be used against the exterior face of the cellar wall. Weep holes consisting of 4-inch diameter PVC pipe should be provided through the foundation wall at about 10 feet on-center so that groundwater can be collected in the underslab drainage system.

Waterproofing

Regardless of whether a drainage system is used, exterior waterproofing is recommended for below-grade walls and the cellar slab. We recommend that a membrane type waterproofing is used, such as Preprufe and Bituthene products manufactured by Grace. A layer of lean concrete at least 2-inches-thick should be placed over subgrade prior to

installing the waterproofing to provide a smooth substrate. The vertical water-proofing should be protected with plywood, drainage board, or other material to prevent damage during backfilling. A drainage panel should be considered to provide protection for the waterproofing membrane and limit water from accumulating against the foundation walls.

Waterproofing should be tied into the waterproofing of the existing buildings, walls, and slabs to remain. Special details will need to be developed for connections, terminations, and around temporary bracing of the walls. The use of bentonite waterproofing or negative side crystalline waterproofing as the primary barrier is not recommended.

We recommend that a warrantee be obtained from the manufacturer and installer to cover materials and workmanship. Only certified installers should be used to perform the waterproofing work. Diligent protection and quality control is critical in producing a final product that limits the potential for seepage. Repairs should be made as soon as possible and should be made per the manufacturer's recommendations. A representative of the manufacturer should perform a final inspection and approve all work prior to concrete pours.

SITE PREPARATION AND CONSTRUCTION RECOMMENDATIONS

Our recommendations for geotechnical aspects of site preparation and construction are provided below.

Subgrade Preparation

Subgrades for foundations and slabs should be prepared by removing materials loosened by machine excavation to an undisturbed subgrade. Subgrade preparation should be performed under the observation and direction of the geotechnical engineer. Remedial work, if necessary, should be performed as directed by the geotechnical engineer. Before the footings, slabs-on-grade, or slab sub-base is placed, the sand subgrades should be proof compacted using at least 8 passes of a walk-behind vibratory roller having a minimum static weight of 2-tons. Subgrades should be in a firm state after proof compaction.

Subgrades should be protected from the effects of frost, freezing, construction traffic, and surface water runoff. We recommend that the contractor protect subgrades by placing a lean concrete slab (mud mat) over the subgrade immediately upon approval by the special inspector.

Backfill may be required to fill the volume of the excavation outside the limits of the proposed foundations. We recommend backfill be structural fill or flowable controlled low-strength material (CLSM). Structural fill should have less than 10% fines, no particles larger than 3-inches, and at least 90% passing the ¾-inch sieve. Structural fill should be free of organic material, construction debris, frozen soil, other deleterious material, or on surfaces that have not been approved by the on-site geotechnical engineer. Recycled Concrete Aggregate (RCA) material is not acceptable for the underlsab drainage layers, nor for backfill behind retaining walls.

Backfill should be placed to subgrade in loose lifts not to exceed 12-inches. Each lift should be compacted with the same roller described above to achieve 95% of its maximum dry density as determined by the Modified Proctor Test (ASTM D1557). Soils should be within a few percentage points of optimum moisture content at the time of compaction.

Fill placement and compaction is subject to special inspection and testing. The suitability of on-site material for re-use as backfill should be determined during construction by the Owner's geotechnical engineer. Grain size distributions, maximum dry density and optimum water content determinations should be made on representative samples of the proposed fill.

Excavation

The general excavation is planned to extend to about el 62.5, which is about 2 to 5 feet below the loading dock grade and about 17 to 22 feet below park grade. Localized excavations will extend about 5 to 15 feet deeper than general subgrade for the elevator and mechanical pits, and tanks. The excavated material to top of rock likely includes miscellaneous fill material (demolition debris, rock fragments), sand, clay, and cobbles. Excavation of bedrock is probable at the southern portion of the site and for deeper excavations for tanks and pits.

Soil excavation can be performed using conventional earthmoving equipment (e.g., backhoes, excavators, hoe-rams, hand tools). Bedrock excavation will likely require drilling, chipping and/or splitting. The contractor must take appropriate measures to stabilize the work area and prevent lateral movements of the adjacent areas during excavation. Utilities must be protected and supported during the excavation. All excavations should be conducted in accordance with all OSHA requirements including, but not limited to, temporary shoring, using trench boxes, and proper benching. All work plans should be submitted for owner and design team review prior to commencement of excavation operations.

Temporary Excavation Support and Underpinning

Excavation support will be necessary around the perimeter of the excavation for the proposed building. Excavation support options are limited by the horizontal and vertical proximity to the existing museum buildings and to limit excavation in the existing park. Feasible options for excavation support include drilled soldier piles and lagging along the west side of the site, support of the existing slabs to remain with concrete piers and lagging, and support of the existing walls to remain with localized underpinning.

A temporary excavation support system consisting of soldier piles and timber lagging appears to be a feasible option for the west perimeter of the excavation. We recommend that soldier piles are pre-drilled and grouted in place to limit vibrations at the adjacent museum structures and impacts to the park areas. The soldier piles and timber lagging can likely be designed with a single level of lateral bracing (i.e. rakers, tiebacks, etc.),

depending on the depth to proposed subgrade. A combination of external bracing (e.g. soil and rock anchors) and internal bracing (e.g., corner braces) are feasible options for support.

Underpinning will be required where the proposed excavation extends deeper than adjacent building foundations and slabs; especially if the building foundations are not bearing on competent rock. As an alternate to underpinning of the adjacent slabs, concrete pier/buttons with timber lagging can be considered. The piers/buttons with lagging would support soils beneath the slab and prevent undermining of the slab. Underpinning and concrete piers/buttons should extend at least 2-feet below the proposed foundation subgrade. Underpinning should bear on the same bearing material or better bearing material as the material that the foundation being underpinned was bearing on.

Dewatering operations could be required to construct the pit underpinning and concrete piers. Rakers or soil anchors or rock anchors would laterally support the piers and underpinning that are not stable as a cantilever. The individual pits should not exceed 4 feet in width along the wall. Construction of the pits should be sequenced such that there is at least 12 feet between concurrently constructed pits. Wedging and jacking should be performed to limit settlement. The underpinning and concrete piers should be designed and installed in accordance with all OSHA and Building Code requirements.

The lateral pressures from sidewalk, adjacent buildings, and any other surcharge loads should be added as a uniform rectangular pressure applied to the full wall height as 50% of the surcharge load. All adjacent utilities must be protected and supported, as needed. Final design of the temporary excavation support system should be performed by the excavation contractor's Professional Engineer licensed in the state of New York. The Professional Engineer will be responsible for the preparation of excavation drawings showing all locations of shoring, sections showing adjacent conditions and elevations, dimensions and spacing of soldier piles and underpinning piers, dimensions and sequencing of underpinning, elevation of top of grade being supported, and all bracing details. Additionally, the existing buildings should be carefully monitored during the construction work in accordance with the monitoring section herein.

Groundwater Control during Construction

Controlling groundwater will likely be required during excavation, underpinning, subgrade preparation and foundation construction. We anticipate that groundwater (or perched water) seepage during foundation construction will occur close to the top of decomposed rock or the clay layer. We expect that groundwater during foundation work at subgrade and rainwater runoff within the general excavation can be controlled using sump pumping with a submersible pump from gravel lined trenches and pits at a lower elevation than the deepest excavations. Care should be taken to ensure that drainage is provided during all phases of excavation work.

Excavations deeper than about 2 feet below the water table (e.g., piers, elevator pits) may require other dewatering measures, such as wells, to pre-lower the water. Localized water-tight sheeting, trench boxes, or other cutoff systems can also be evaluated for

groundwater control. The Contractor's dewatering system should be adequate for maintaining a "dry" site during normal operating conditions and water should be maintained at least 2 feet below subgrade elevations.

Environmental pretreatment of groundwater, if necessary, is beyond the scope of this report. Also, a permit from the New York City Department of Environmental Protection (NYCDEP) will be required for water discharge; an evaluation will be made by the NYCDEP to check if the local sewers can handle the volume of water.

ADDITIONAL RECOMMENDATIONS

The following sections provide recommendations for satisfying Monitoring and Landmark Preservation Commission Requirements.

Structural Stability Analysis of Adjacent Building Prior to Construction

We recommend a structural stability analysis to be performed for the adjacent buildings to the south and east to evaluate the existing structural conditions of the building prior to demolition, excavation and construction, including underpinning. Specifically, the results of the structural stability analysis will allow for a better understanding of which method would be a feasible option for demolishing the existing buildings at the site and bracing the building during excavation of the site. This analysis may determine that additional measures are needed to brace the adjacent buildings prior to work commencing. The need for structural stability analysis is mandated by Section 1704.19 of the Building Code.

ADDITIONAL RECOMMENDATIONS

The following sections provide recommendations for satisfying Landmark Preservation Commission Requirements, preconstruction conditions documentation, and monitoring at adjacent structures.

Landmarks Preservation Commission Requirements

The site is a landmarked structure. General procedures for avoiding damage to landmarked structures and buildings in historic districts are outlined in TPPN #10/88. TPPN #10/88 defines adjacent properties as being within 90 feet of the site where work is being performed. The monitoring requirements of adjacent properties includes measuring peak particle velocities, monitoring horizontal and vertical deflections of temporary retaining wall structures, monitoring horizontal and vertical deflections of adjacent buildings, groundwater table fluctuations, ground settlements, crack monitoring, preconstruction conditions documentation, and photograph documentation of adjacent buildings.

Preconstruction Conditions Documentation

We recommend that a comprehensive preconstruction conditions survey of the existing museum structures on all sides of the proposed footprint be undertaken prior to any construction activities. We also recommend performing a plumb survey of the adjacent

existing museum structures prior to the start of construction. The plumb survey will document the relative verticality of the adjacent buildings. The surveys would provide the owner and foundation contractor with documentation of existing conditions.

As discussed herein, we also recommend performing a structural stability assessment of the adjacent buildings and below-grade structures prior to finalizing the building plans and start of excavation work at the site. The structural stability assessment should identify structural deficiencies in the adjacent structures so that additional plans can be developed for stabilizing the buildings.

The adjacent structures are old and relatively fragile. The contractor must use prudent measures to monitor, support and protect these structures during all work. The contractor's engineer should examine all nearby buildings before the start of earthwork to develop a protection plan.

Monitoring Program in Adjacent Structures

On the basis of the preconstruction survey, an observational and instrumentation program should be designed for monitoring the performance of adjacent structures and evaluating construction procedures. This program should consist of monitoring horizontal and vertical movements by optical surveying and vibration monitoring using threshold-type seismographs to measure construction-induced vibrations. Depending on the findings of the preconstruction conditions survey, crack gauges should be required to monitor for crack changes inside and/or outside the adjacent structures during work.

There are multiple existing museum structures that will require optical and vibration monitoring for this project.

Vibration Monitoring

Typically, vibration monitors must be installed in each building within 90 feet of proposed construction, spaced no greater than 50 feet. The threshold peak particle velocities (PPV) of 0.5-inches per second for buildings with concrete foundation walls and 0.5 inches per second for building with brick or rubble foundation walls should be considered. These thresholds should be verified or revised based on the results of the preconstruction conditions survey.

Optical Monitoring

A precise optical survey program should be implemented to monitor vertical and horizontal movements of nearby structures and the excavation perimeter including the excavation support system. The survey should be performed a minimum of twice a week, with measurements taken to the nearest 0.005 ft. A fixed off-site reference benchmark should be used. At least two baseline surveys should be made prior to the start of work. Excavation work should be temporarily stopped if movements (vertical or horizontal) exceed about ¼-inch over a single reading or a movement trend develops over several readings.

SERVICES DURING DESIGN, CONSTRUCTION DOCUMENTS AND CONSTRUCTION QUALITY ASSURANCE

During final design we should be retained to consult with the design team as geotechnical questions arise. Technical specifications and design drawings should incorporate Langan's recommendations. When authorized, Langan will assist the design team in preparing specification sections related to geotechnical issues such as earthwork, ground improvement, shallow foundations, deep foundations, backfill and excavation support. Langan should also, when authorized, review the project plans, as well as Contractor submittals relating to materials and construction procedures for geotechnical work, to confirm the designs incorporate the intent of our recommendations.

Langan has investigated and interpreted the site subsurface conditions and developed the foundation design recommendations contained herein, and is therefore best suited to perform quality assurance observation and testing of geotechnical-related work during construction. The work requiring quality assurance confirmation and/or special inspections per the Building Code includes, but is not limited to, earthwork, backfill, ground improvement, shallow and deep foundations, and excavation support.

Recognizing that construction observation is the final stage of geotechnical design, quality assurance observation during construction by Langan is necessary to confirm the design assumptions and design elements, to maintain our continuity of responsibility on this project, and allow us to make changes to our recommendations, as necessary. The foundation system and general geotechnical construction methods recommended herein are predicated upon Langan assisting with the final design and providing construction observation services for the Owner. Should Langan not be retained for these services, we cannot assume the role of geotechnical engineer of record, and the entity providing the final design and construction observation services must serve as the engineer of record.

OWNER AND CONTRACTOR RESPONSIBILITIES

The Contractor is responsible for construction quality control, which includes satisfactorily constructing the foundation system and any associated temporary works to achieve the design intent while not adversely impacting or causing loss of support to neighboring property, structures, utilities, roadways, etc. Construction activities that can alter the existing ground conditions such as excavation, fill placement, foundation construction, ground improvement, pile driving/drilling, dewatering, etc. can also induce stresses, vibrations, and movements in nearby structures and utilities, and disturb occupants. Contractors are solely responsible to ensure that their activities will not adversely affect the structures and utilities, and will not disturb occupants. Contractors must also take all necessary measures to protect the existing structures, utilities, etc. during construction. By using this report, the Owner agrees that Langan will not be held responsible for any damage to adjacent structures, utilities, etc.

The preparation and use of this report is based on the condition that the project construction contract between the Owner and their Contractor(s) will include: 1) Langan

being added to the Project Wrap and/or Contractor's General Liability insurance as an additional insured, and 2) language specifically stating the Foundation Contractor will defend, indemnify, and hold harmless the Owner and Langan against all claims related to disturbance or damage to adjacent structures, utilities, etc. or properties.

LIMITATIONS

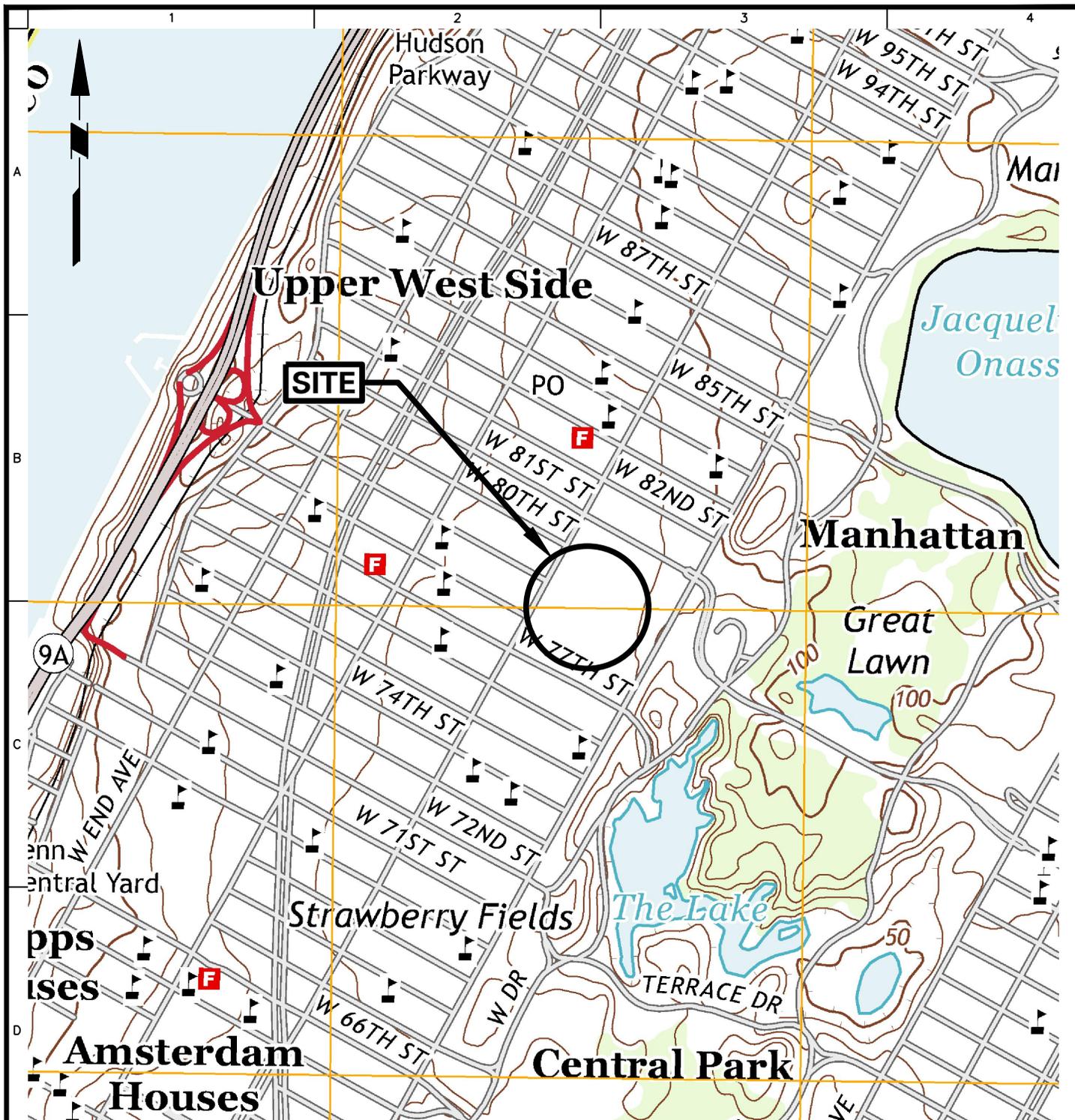
The conclusions and recommendations provided in this report result from our interpretation of the geotechnical conditions existing at the site inferred from a limited number of borings, test pits and other exploration, as well as architectural and structural information provided by Davis Brody Bond and Arup. Actual subsurface conditions may vary. Recommendations provided are dependent upon one another and no recommendation should be followed independent of the others.

Any proposed changes in structures or their locations should be brought to Langan's attention as soon as possible so that we can determine whether such changes affect our recommendations. Information on subsurface strata and groundwater levels shown on the logs represent conditions encountered only at the locations indicated and at the time of investigation. If different conditions are encountered during construction, they should immediately be brought to Langan's attention for evaluation, as they may affect our recommendations.

This report has been prepared to assist the Owner, architect, and structural engineer in the design process and is only applicable to the design of the specific project identified. The information in this report cannot be utilized or depended on by engineers or contractors who are involved in evaluations or designs of facilities (including underpinning, grouting, stabilization, etc.) on adjacent properties which are beyond the limits of that which is the specific subject of this report.

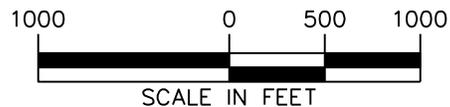
Environmental issues (such as permitting or potentially contaminated soil and groundwater) are outside the scope of this study and should be addressed in a separate evaluation.

DRAWINGS



NOTE: ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

SOURCE: "CENTRAL PARK QUADRANGLE NEW YORK-NEW JERSEY 7.5-MINUTE SERIES," U.S. GEOLOGICAL SURVEY, 2013.



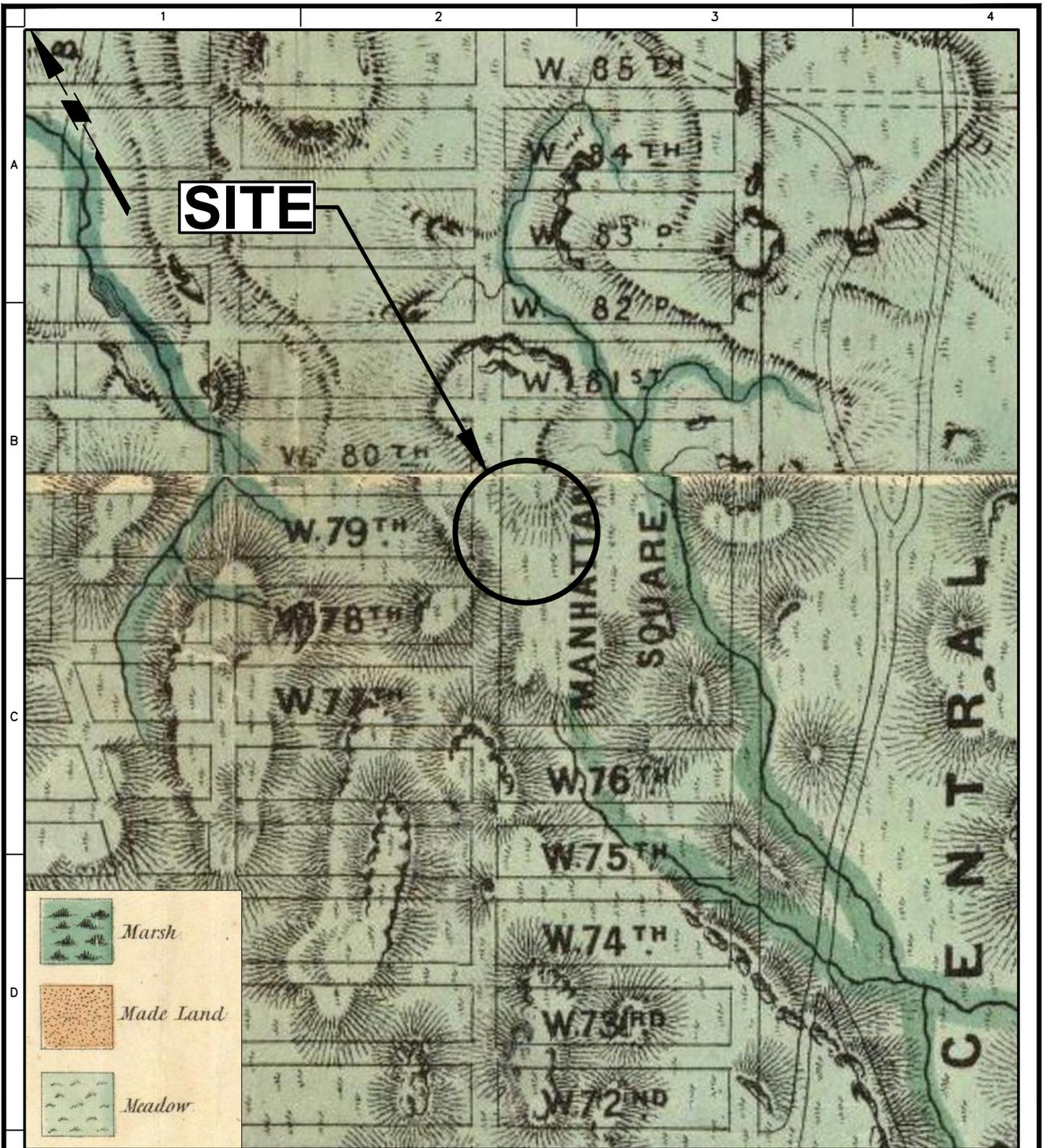
SCALE IN FEET

| | | | | |
|--|---------------------------|--------------------------|-----------------|---------------|
| <p>21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan International LLC Collectively known as Langan</p> | Project | Drawing Title | Project No. | Drawing No. |
| | AMNH GILDER CENTER | SITE LOCATION MAP | 170132489 | 1 |
| | BLOCK No. 1130, LOT No.1 | | Date | |
| | NEW YORK | NEW YORK | | 04/19/2017 |
| | | | Scale | |
| | | | 1" = 1000' | |
| | | | Drawn By | Checked By |
| | | | SAT | SWS |
| | | | Submission Date | |
| | | | 04/19/2017 | Sheet 1 of 13 |



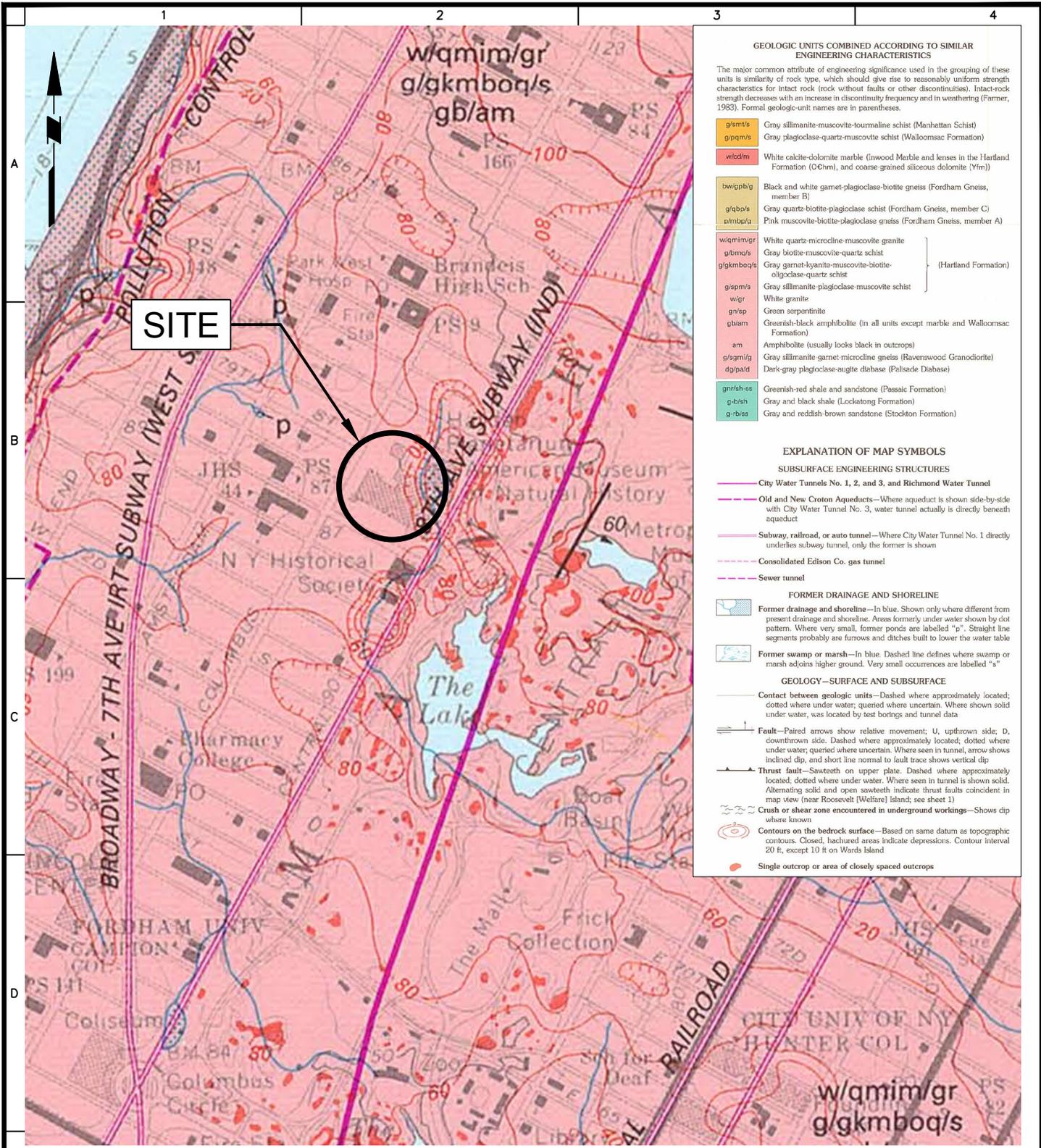
REFERENCE: TOPOGRAPHICAL MAP OF THE CITY AND COUNTY OF NEW YORK AND THE ADJACENT COUNTRY (COLTON, 1836).

| | | | | |
|---|---|--|-------------------------------|-----------------------------|
| <p>LANGAN 21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan International LLC Collectively known as Langan</p> | Project | Drawing Title | Project No. 170132489 | Drawing No. 2 |
| | <p>AMNH GILDER CENTER BLOCK No. 1130, LOT No. 1</p> | <p>COLTON MAP (1836)</p> | Date 04/19/2017 | |
| | | | Scale N.T.S. | |
| | | | Drawn By SAT | Checked By SWS |
| | NEW YORK | NEW YORK | Submission Date 04/19/2017 | Sheet 2 of 13 |



REFERENCE: SANITARY & TOPOGRAPHICAL MAP OF THE CITY AND ISLAND OF NEW YORK (VIELE, 1865).

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|---|---|---|-----------------|-----------------|------------|---------|
| <p>LANGAN 21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan International LLC Collectively known as Langan</p> | Project | Drawing Title | Project No. | Drawing No. | | |
| | <p>AMNH GILDER CENTER BLOCK No. 1130, LOT No. 1 NEW YORK NEW YORK</p> | <p>VIELE MAP (1865)</p> | 170132489 | <p>3</p> | | |
| | | | Date | | 04/19/2017 | |
| | | | Scale | | N.T.S. | |
| | | | Drawn By | | Checked By | |
| | SAT | SWS | Submission Date | 04/19/2017 | Sheet | 3 of 13 |

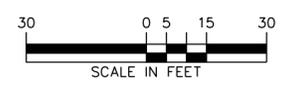
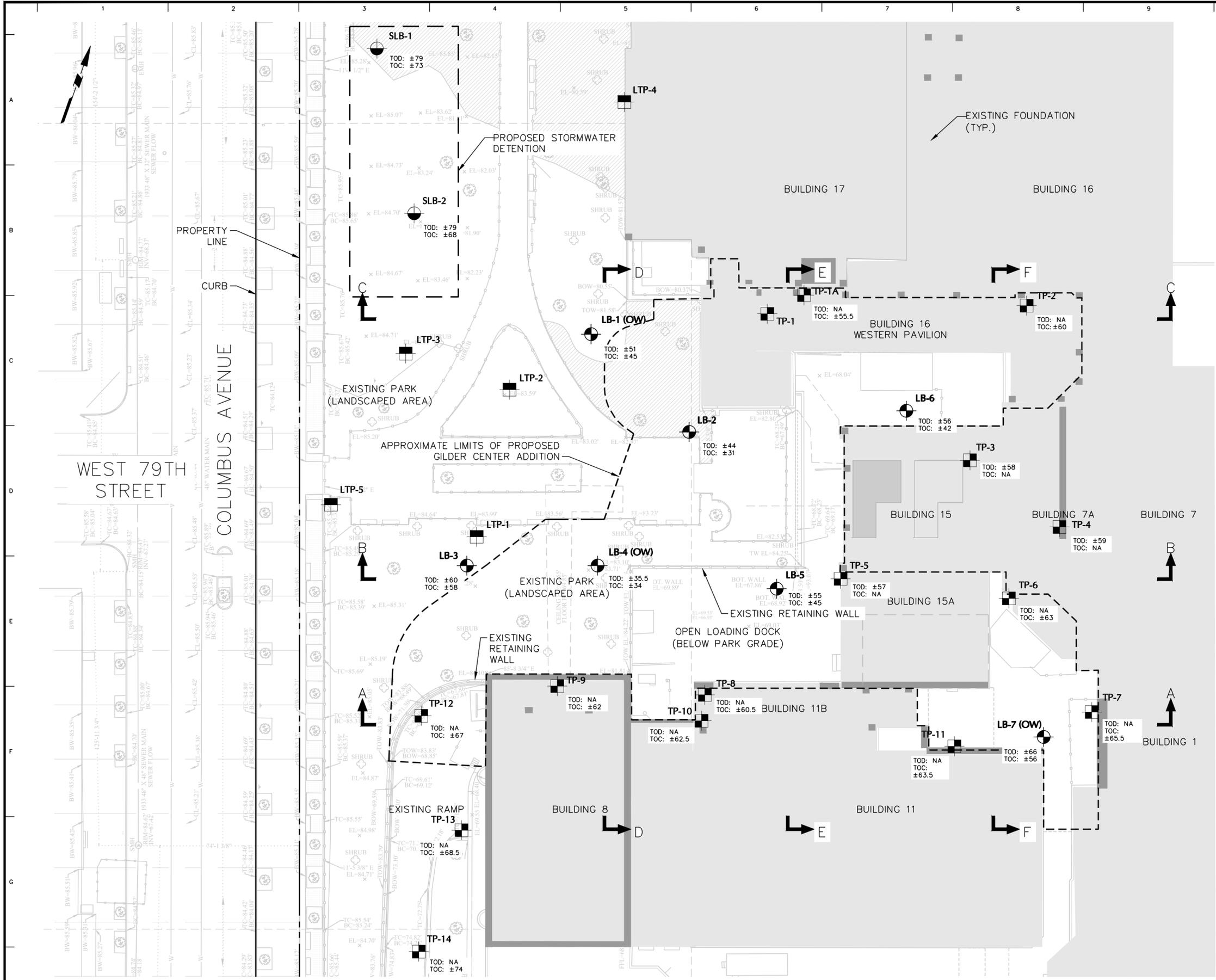


SOURCE: "BEDROCK AND ENGINEERING GEOLOGIC MAPS OF NEW YORK COUNTY AND PARTS OF KINGS AND QUEENS COUNTIES, NEW YORK, USGS, SHEET 2 OF 2 (BASKERVILLE, 1994)

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|--|---|-----------------------------------|-----------------|-----------------|---------------|
| <p>21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan International LLC Collectively known as Langan</p> | Project | Drawing Title | Project No. | Drawing No. | |
| | <p>AMNH GILDER CENTER</p> <p>BLOCK No. 1130, LOT No. 1</p> | <p>BEDROCK GEOLOGY MAP</p> | 170132489 | <p>4</p> | |
| | | | Date | | 04/19/2017 |
| | NEW YORK | NEW YORK | Submission Date | 04/19/2017 | Sheet 4 of 13 |
| | | | Scale | N.T.S. | |
| | | Drawn By | SAT | Checked By | SWS |

GENERAL NOTES:

- EXISTING CONDITIONS AND TOPOGRAPHIC INFORMATION SHOWN ARE TAKEN FROM AN ARCHITECTURAL SURVEY PREPARED BY FEHRINGER SURVEYING, P.C. DATED 6 MARCH 2017.
- PROPOSED GILDER CENTER ADDITION LOCATION BASED ON DRAWING NO. A-101 TITLED "LEVEL 1 PLAN" BY STUDIO GANG ARCHITECTS, DATED 26 FEBRUARY 2016. THE LOCATION IS APPROXIMATE.
- ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM 1988, WHICH IS 1.65' ABOVE BOROUGH PRESIDENT OF MANHATTAN DATUM (NAVD88 = BPMD + 1.65'). SURVEY SHOULD BE CONSIDERED APPROXIMATE.
- BORINGS LB-1(OW) THROUGH LB-7(OW), SLB-1 AND SLB-2 WERE PERFORMED BY AQUIFER DRILLING AND TESTING USING A TRACK MOUNTED RIG BETWEEN 2 FEBRUARY AND 1 MARCH 2017 UNDER FULL-TIME SPECIAL INSPECTION BY A LANGAN ENGINEER.
- TEST PITS TP-1 THROUGH TP-14 AND LANDSCAPE TEST PITS LTP-1 THOUGH LTP-5 WERE PERFORMED BY AQUIFER DRILLING AND TESTING BETWEEN 30 JANUARY AND 3 MARCH 2017 UNDER FULL-TIME SPECIAL INSPECTION BY A LANGAN ENGINEER.
- ALL BORING AND TEST PIT LOCATIONS ARE CONSIDERED APPROXIMATE.



LEGEND:

| | | |
|-------|-------|--|
| LB-# | TP-# | TOD = TOP OF DECOMPOSED ROCK ELEVATION |
| SLB-# | LTP-# | TOC = TOP OF COMPETENT ROCK ELEVATION |
| (OW) | | --- APPROXIMATE LIMIT OF PROPOSED ADDITION |

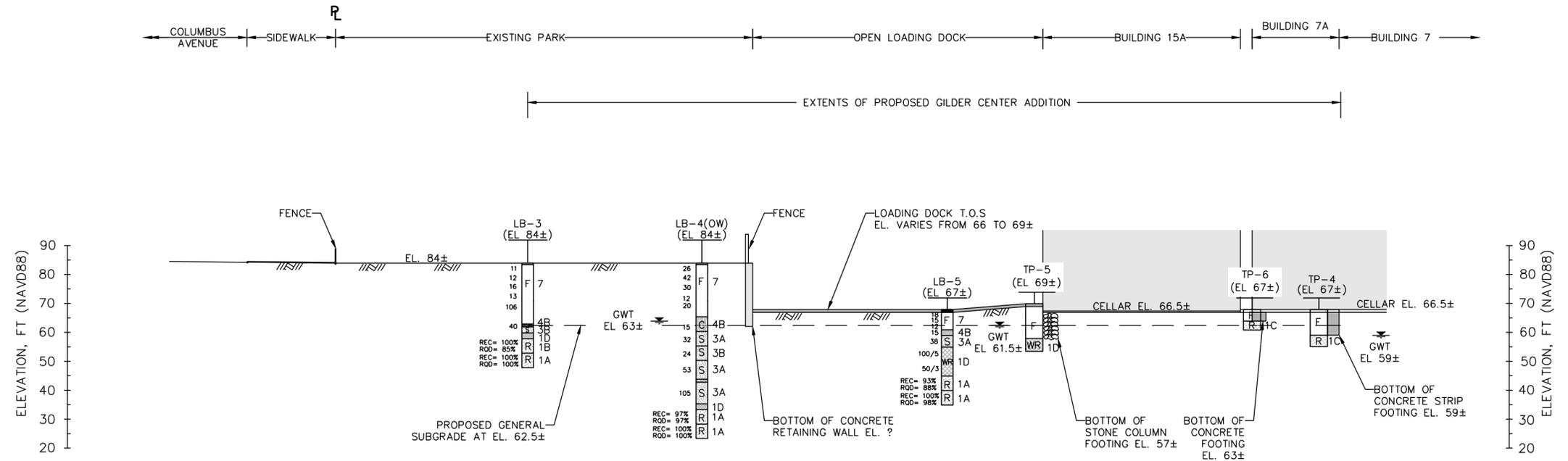
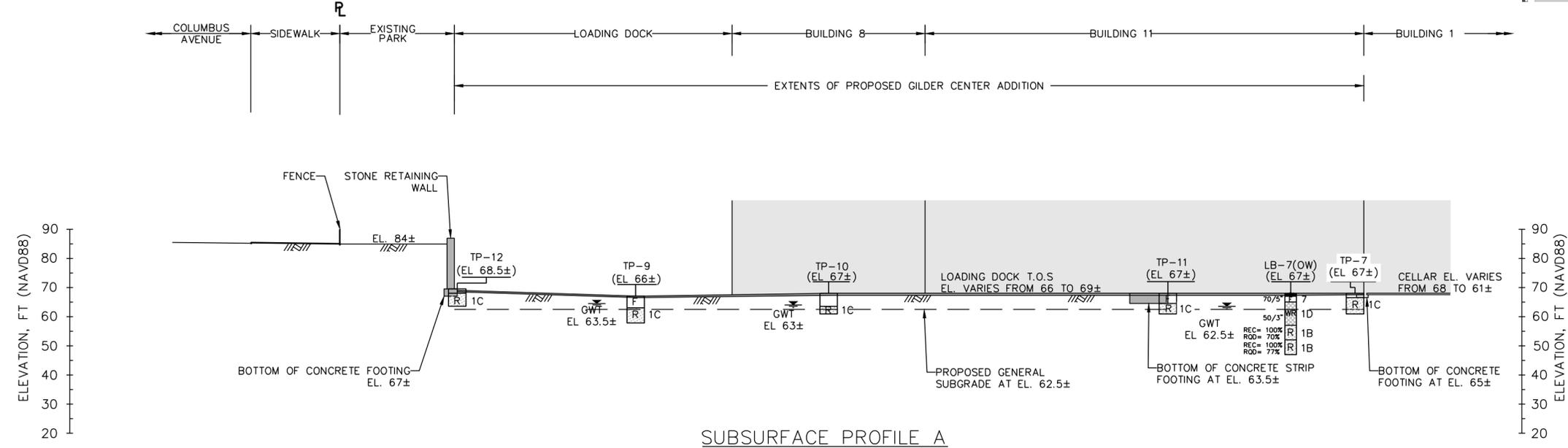
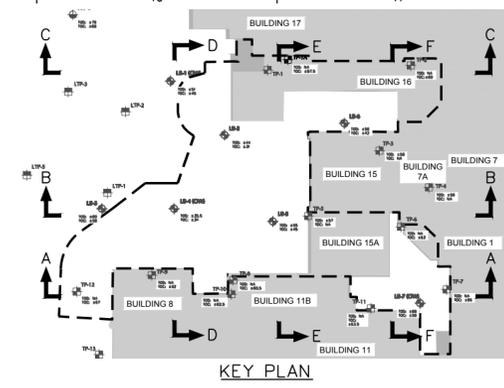
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Project
AMNH GILDER CENTER
 BLOCK No. 1130, LOT No. 1
 NEW YORK NEW YORK

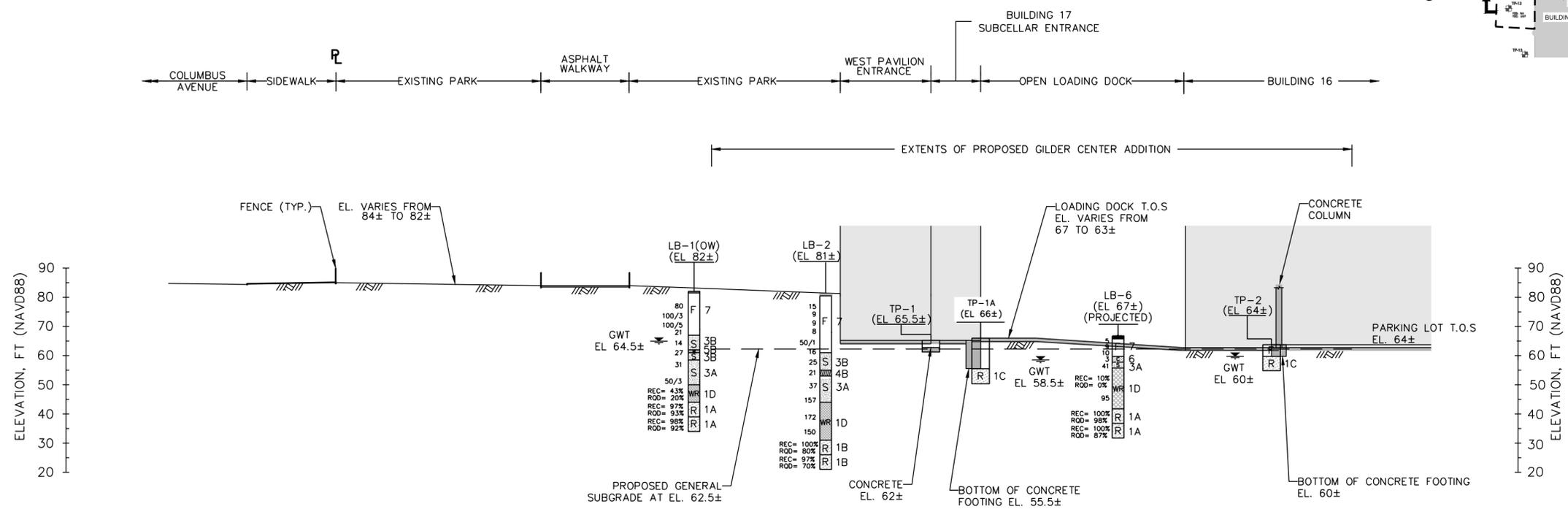
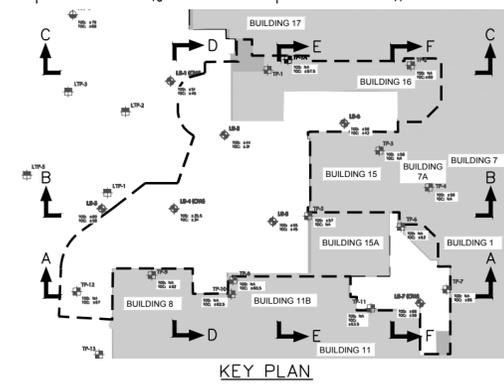
Drawing Title
SUBSURFACE EXPLORATION PLAN

| | |
|-------------------------------|-------------------------|
| Project No. 170132489 | Drawing No. 5 |
| Date 04/19/2017 | |
| Scale 1" = 30' | |
| Drawn By SAT | Checked By SWS |
| Submission Date 04/19/2017 | Sheet 5 of 13 |

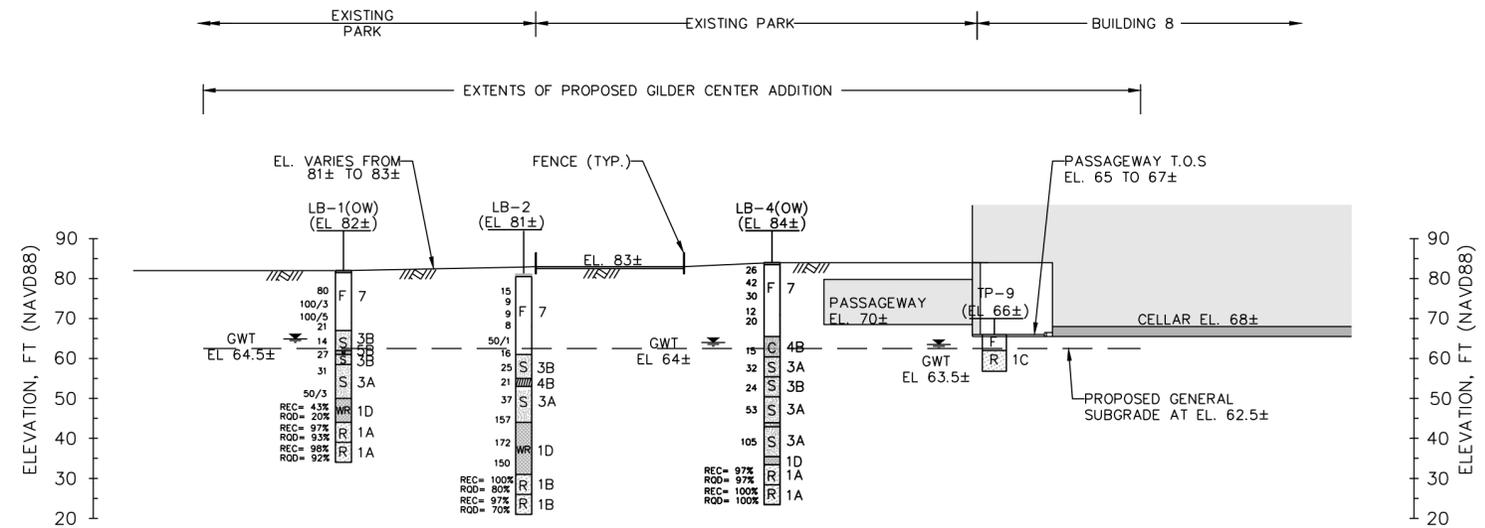


- NOTES:**
- REFER TO DRAWING No. 5 FOR THE SUBSURFACE EXPLORATION PLAN AND NOTES.
 - THESE PROFILES REPRESENT A GENERALIZED SOIL CROSS SECTION INTERPRETED FROM WIDELY SPACED BORINGS AND TEST PITS. SOIL AND GROUNDWATER MAY VARY IN TYPE, LOCATION, ELEVATION, AND ENVIRONMENTAL AND ENGINEERING PROPERTIES BETWEEN POINTS AND EXPLORATION. VARIATIONS IN SUBSURFACE CONDITIONS SHOULD BE EXPECTED BETWEEN BORINGS AND TEST PITS.
 - REFER TO DRAWING 13 FOR BORING KEY AND LEGEND.

| | | | | |
|--|---|---|--|--|
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| | File name: \\langan.com\data\NYC\data\170132489\Cadd Data - 170132489\SheetFiles\Geotechnical\2017 Geotechnical Report\170132489-8L201-0101(DWG06-8).dwg Date: 4/20/2017 Time: 13:30 User: sghosh Style Table: Langan.stb Layout: DWG06-SECTION A & B | | | |



SUBSURFACE PROFILE C
FACING NORTH
SCALE: 1"=30'

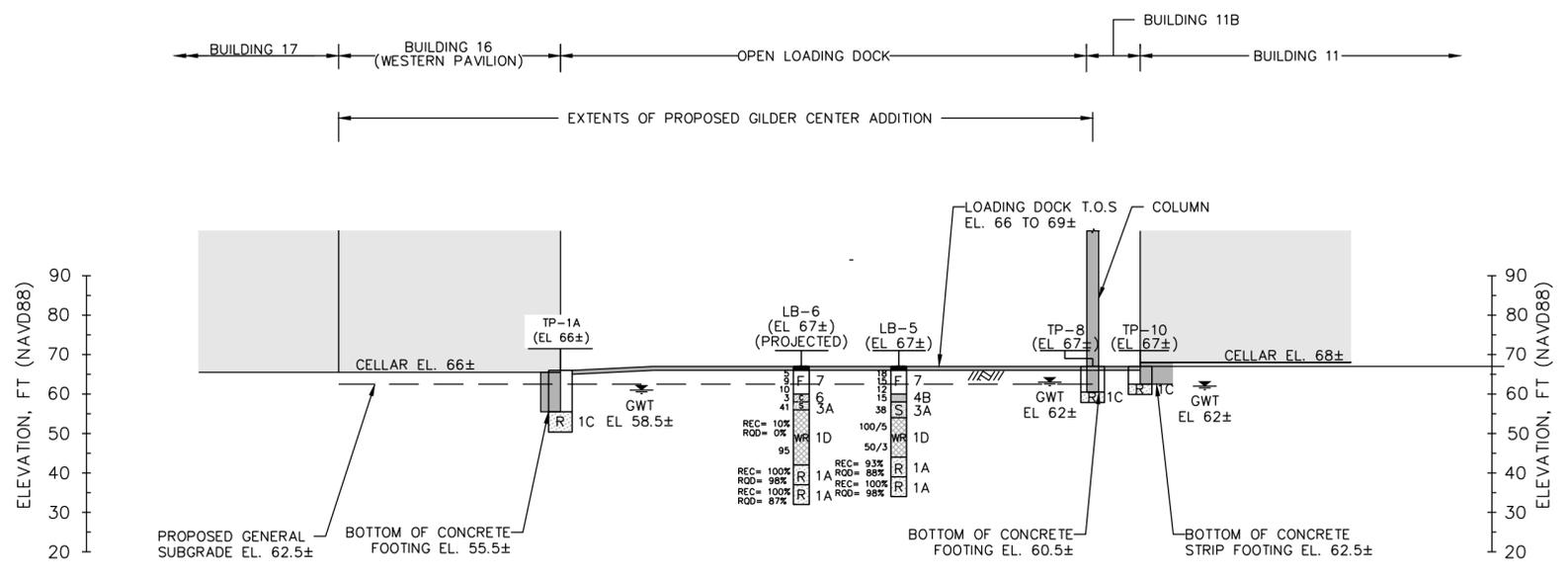
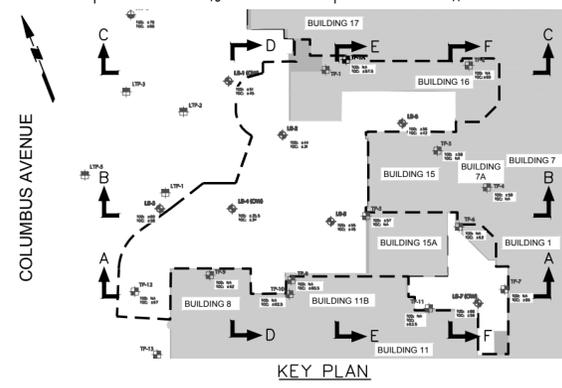


SUBSURFACE PROFILE D
FACING EAST
SCALE: 1"=30'

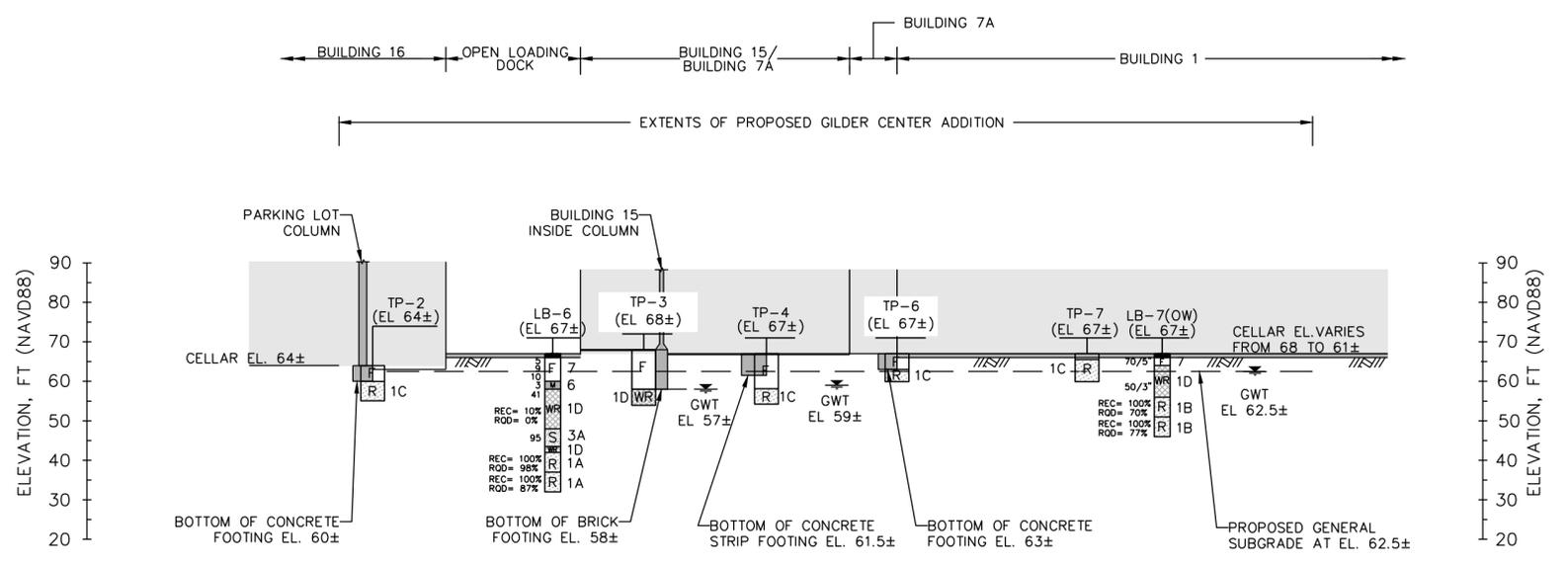


- NOTES:
1. REFER TO DRAWING No. 5 FOR THE SUBSURFACE EXPLORATION PLAN AND NOTES.
 2. THESE PROFILES REPRESENT A GENERALIZED SOIL CROSS SECTION INTERPRETED FROM WIDELY SPACED BORINGS AND TEST PITS. SOIL AND GROUNDWATER MAY VARY IN TYPE, LOCATION, ELEVATION, AND ENVIRONMENTAL AND ENGINEERING PROPERTIES BETWEEN POINTS AND EXPLORATION. VARIATIONS IN SUBSURFACE CONDITIONS SHOULD BE EXPECTED BETWEEN BORINGS AND TEST PITS.
 3. REFER TO DRAWING 13 FOR BORING KEY AND LEGEND.

| | | | | |
|---|--|---|--|--|
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| | Filename: \\langan.com\data\NYC\data\170132489\Cadd Data - 170132489\SheetFiles\Geotechnical\2017 Geotechnical Report\170132489-8L201-0101(DWG06-8).dwg Date: 4/20/2017 Time: 15:12 User: sghosh Style Table: Langan.stb Layout: DWG07-SECTION C & D | | | |



SUBSURFACE PROFILE E
FACING NORTH
SCALE: 1"=30'

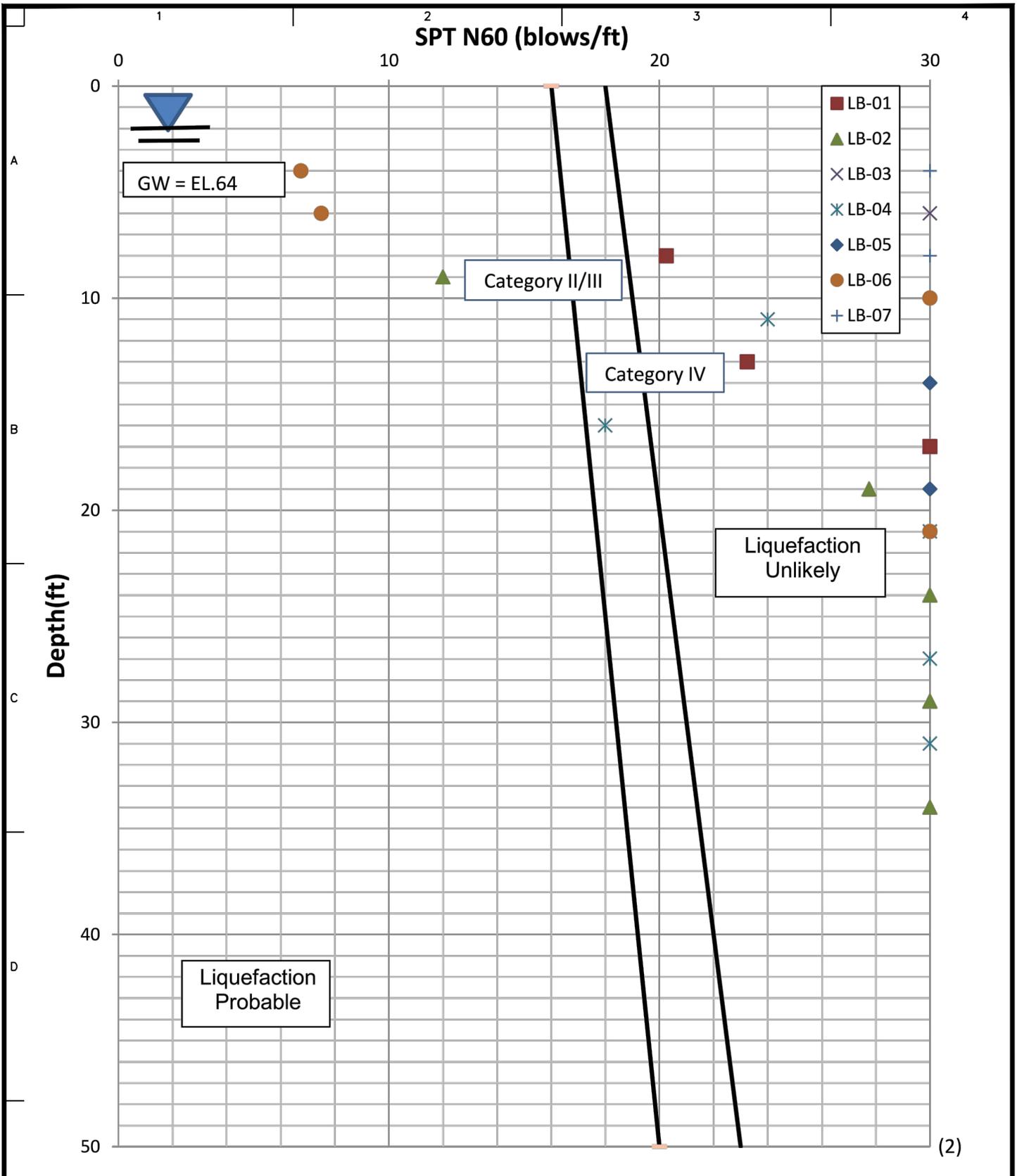


SUBSURFACE PROFILE F
FACING EAST
SCALE: 1"=30'



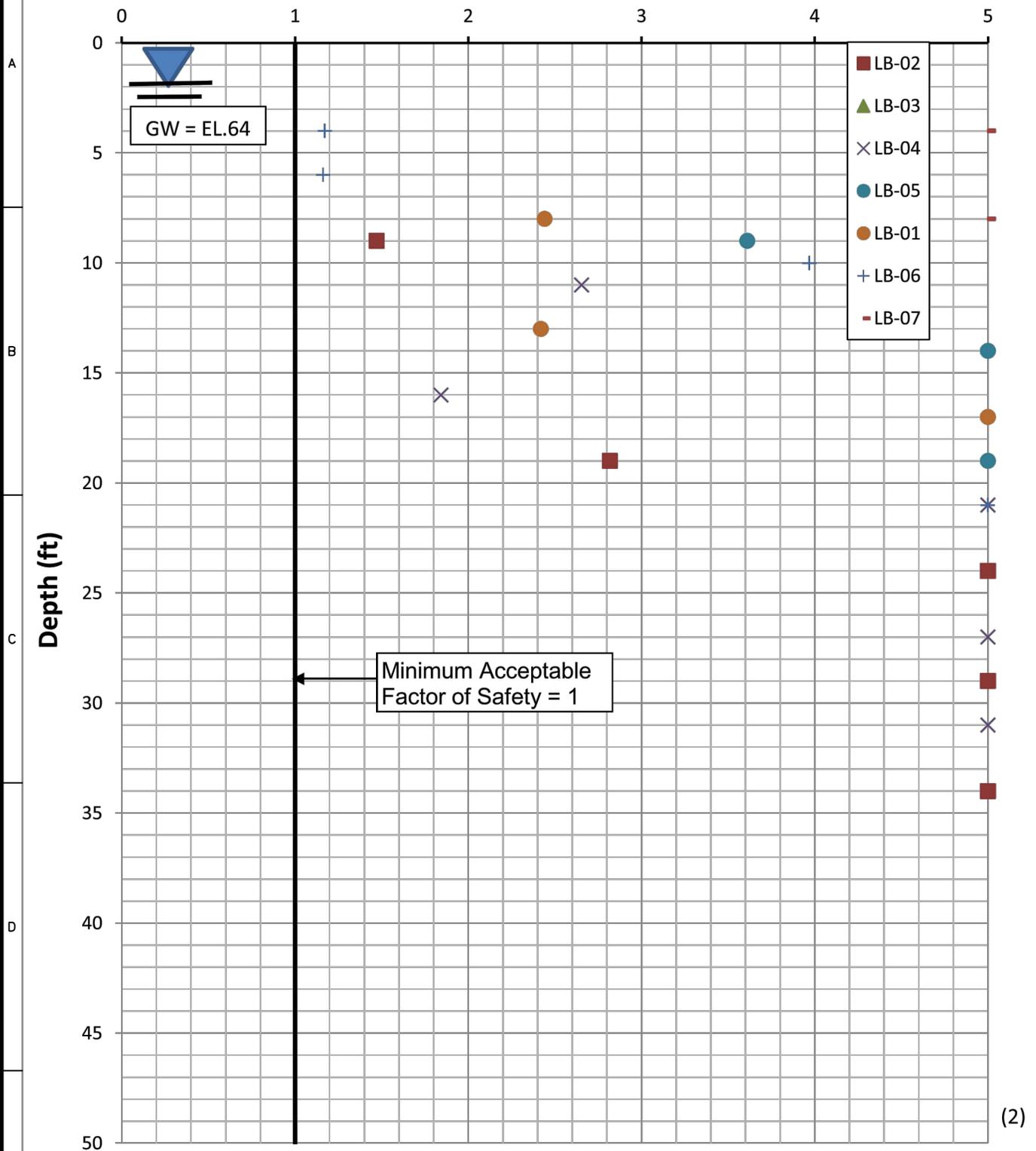
- NOTES:
- REFER TO DRAWING No. 5 FOR THE SUBSURFACE EXPLORATION PLAN AND NOTES.
 - THESE PROFILES REPRESENT A GENERALIZED SOIL CROSS SECTION INTERPRETED FROM WIDELY SPACED BORINGS AND TEST PITS. SOIL AND GROUNDWATER MAY VARY IN TYPE, LOCATION, ELEVATION, AND ENVIRONMENTAL AND ENGINEERING PROPERTIES BETWEEN POINTS AND EXPLORATION. VARIATIONS IN SUBSURFACE CONDITIONS SHOULD BE EXPECTED BETWEEN BORINGS AND TEST PITS.
 - REFER TO DRAWING 13 FOR BORING KEY AND LEGEND.

| | | | | |
|--|---|---|--|--|
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|--|---|---|--|--|



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| | <p>AMNH GILDER CENTER</p> <p>BLOCK No. 1130, LOT No. 1</p> <p>NEW YORK NEW YORK</p> | <p>NYCBC LIQUEFACTION CHART</p> | 170132489 | <p>9</p> | |
| | | | Date | | 04/19/2017 |
| | | | Scale | | N.T.S. |
| | | | Drawn By | | Checked By |
| | SAT | SWS | Submission Date | 04/19/2017 | |
| | | | | Sheet 9 of 13 | |

Factor Of Safety Against Liquefaction Youd et. al



(2)

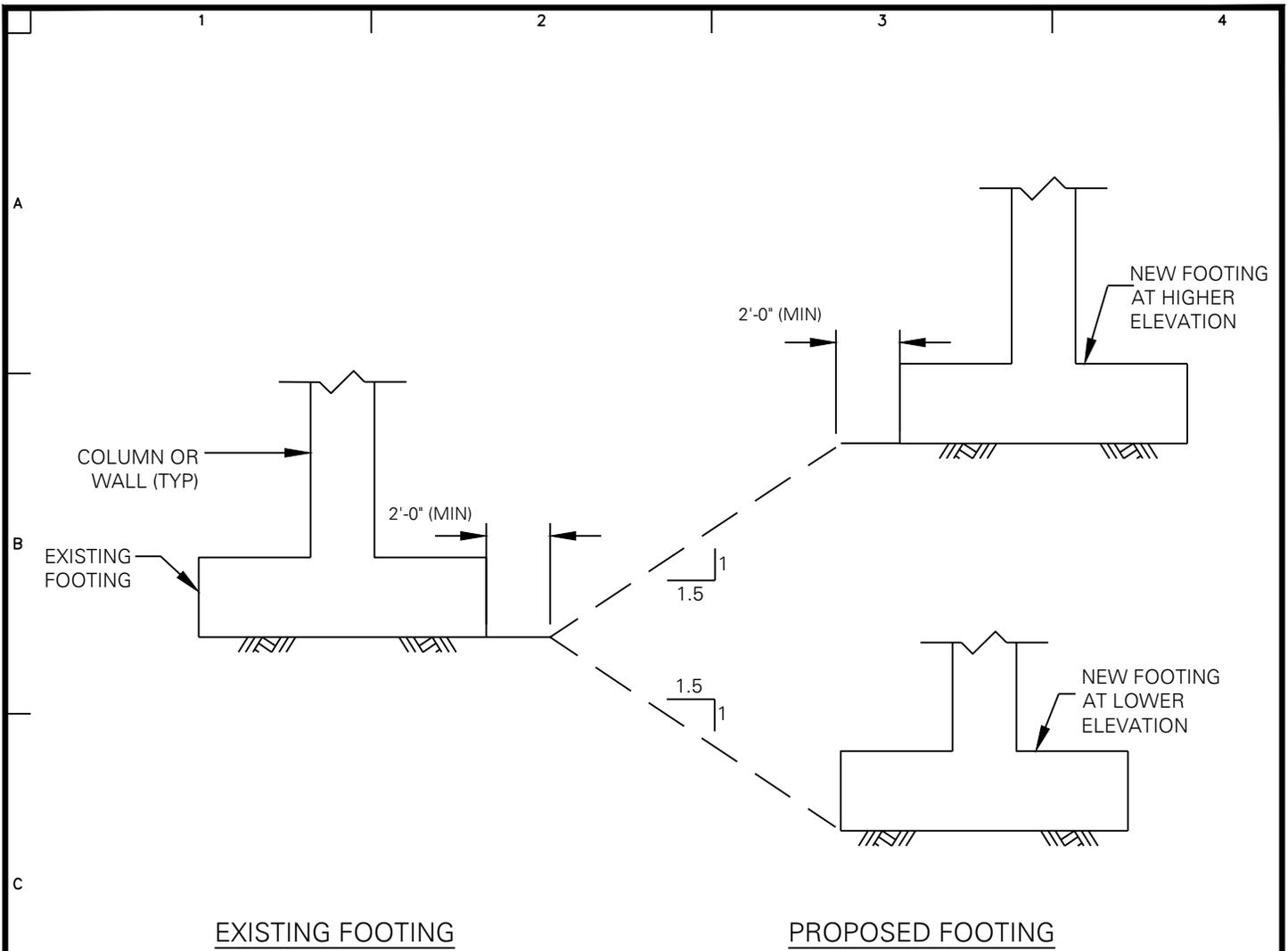
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Project
**AMNH GILDER
 CENTER**
 BLOCK No. 1130, LOT No. 1
 NEW YORK NEW YORK

Drawing Title
**LIQUEFACTION
 YOUD ET. AL**

Project No.
170132489
 Date
04/19/2017
 Scale
N.T.S.
 Drawn By
SAT
 Checked By
SWS
 Submission Date
04/19/2017

Drawing No.
10
 Sheet 10 of 13



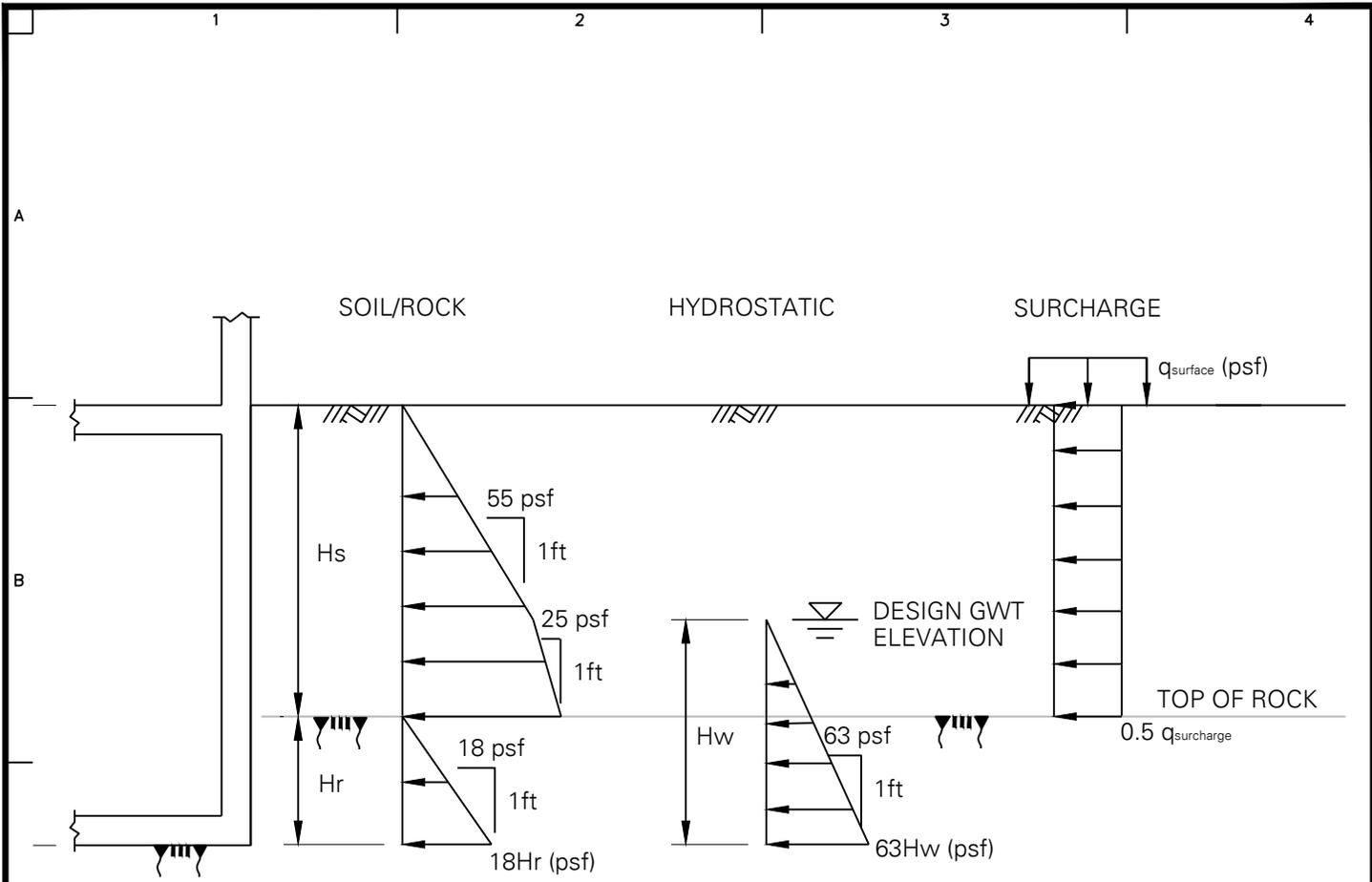
EXISTING FOOTING

PROPOSED FOOTING

NOTES:

1. NEW FOOTINGS SHALL BE CONSTRUCTED A MINIMUM OF 2 FOOT BEYOND THE INFLUENCE ZONE OF THE EXISTING FOOTING.
2. FOR A NEW FOOTING CONSTRUCTED AT A HIGHER ELEVATION THAN THE EXISTING FOOTING, THE INFLUENCE ZONE IS DEFINED BY A LINE WITH A 1.5H:1V SLOPE EXTENDING UPWARD FROM THE BASE OF THE EXISTING FOOTING.
3. FOR A NEW FOOTING CONSTRUCTED AT A LOWER ELEVATION THAN THE EXISTING FOOTING, THE INFLUENCE ZONE IS DEFINED BY A LINE WITH A 1.5H:1V SLOPE EXTENDING DOWNWARD FROM THE BASE OF THE EXISTING FOOTING.

| | | | | | |
|--|--|--|-------------|------------------|------------------|
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| | <p>AMNH GILDER CENTER</p> <p>BLOCK No. 1130, LOT No. 1</p> <p>NEW YORK NEW YORK</p> | <p>FOOTING INFLUENCE LINE (IN SOIL)</p> | 170132489 | <p>11</p> | |
| | | | Date | | <p>11</p> |
| | | | 04/19/2017 | | |
| | | | Scale | | |
| N.T.S. | <p>Drawn By SAT</p> <p>Checked By SWS</p> | | | | |
| Submission Date | 04/19/2017 | Sheet 11 of 13 | | | |



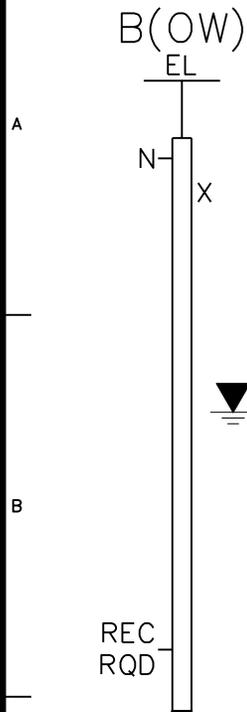
LATERAL EARTH PRESSURES FOR PERMANENT SUBGRADE WALLS

LEGEND:

- H = HEIGHT OF BELOW GRADE WALL (FT)
- Hs = DEPTH OF SOIL TO TOP OF ROCK (FT)
- Hw = DEPTH TO DESIGN GROUND WATER TABLE (FT)
- Hr = HEIGHT OF ROCK (FT)
- = GROUND WATER TABLE

| | | | | |
|---|--|---|----------------------------------|-----------------------------|
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| | <p>Date 04/19/2017</p> | <p>Submission Date 04/19/2017</p> | | |
| | <p>Scale N.T.S.</p> | <p>Checked By SWS</p> | | |
| | <p>Drawn By SAT</p> | <p>Submission Date 04/19/2017</p> | | |
| | <p>Submission Date 04/19/2017</p> | | | |

BORING KEY



- B BORING IDENTIFICATION
- EL GROUND SURFACE ELEVATION AT TIME OF BORING
- N STANDARD PENETRATION RESISTANCE; NUMBER OF BLOWS OF A 140 LB. HAMMER FREE FALLING 30 IN. TO DRIVE A 2 IN O.D. SPLIT SPOON SAMPLER 12 IN. AFTER 6 INCHES OF INITIAL PENETRATION
- REC (LENGTH OF ROCK RETRIEVED)/(LENGTH OF ROCK CORED)*100%
- RQD ROCK QUALITY DESIGNATION (LENGTH OF ROCK PIECES 4 INCHES OR LONGER)/(LENGTH OF ROCK CORED)*100%
- X NEW YORK CITY BUILDING CODE CLASSIFICATION
- (OW) GROUNDWATER OBSERVATION WELL
- MEASURED GROUNDWATER LEVEL
- C-1 ROCK CORE RUN IDENTIFICATION AND LENGTH

MATERIAL SYMBOLS

- UNCONTROLLED FILL
- SAND
- CLAY
- SILT
- WEATHERED ROCK
- BEDROCK

NEW YORK CITY BUILDING CODE CLASSIFICATION NUMBER

- 1A HARD SOUND ROCK
- 1B MEDIUM SOUND ROCK
- 1C INTERMEDIATE ROCK
- 1D SOFT ROCK-WEATHER ROCK
- 2A DENSE SANDY GRAVEL & GRAVEL
- 2B MEDIUM SANDY GRAVEL & GRAVEL
- 3A DENSE GRANULAR SOILS
- 3B MEDIUM GRANULAR SOILS
- 4A HARD CLAYS
- 4B STIFF CLAYS
- 4C MEDIUM CLAYS
- 5A DENSE SILTS & SILTY SOILS
- 5B MEDIUM SILTS & SILTY SOILS
- 6 ORGANIC SILTS & CLAYS, PEATS, SOFT CLAYS, LOOSE GRANULAR SOILS, AND VARVED SILTS
- 7 CONTROLLED & UNCONTROLLED FILLS

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| | AMNH GILDER CENTER BLOCK No. 1130, LOT No. 1 NEW YORK NEW YORK | BORING KEY AND LEGEND | 170132489 | | 13 | |
| | | | Date | | | 04/19/2017 |
| | | | Scale | | | N.T.S. |
| | | | Drawn By / Checked By | | | SAT / SWS |
| Submission Date | 04/19/2017 | Sheet 13 of 13 | | | | |

**APPENDIX A
BORING LOGS AND
WELL CONSTRUCTION LOGS**

| | | | | | | | |
|---|--|---------------------|-----------------|---|--|------------------------------------|--------------------|
| Project American Museum of Natural History | | | | Project No. 170132489 | | | |
| Location New York, New York | | | | Elevation and Datum Approx. 82 ± (NAVD 88) | | | |
| Drilling Company Aquifer Drilling and Testing | | | | Date Started 2/15/17 | | Date Finished 2/17/17 | |
| Drilling Equipment Ecco Diesel Track Mounted Rig | | | | Completion Depth 47 ft | | Rock Depth 37 ft | |
| Size and Type of Bit 3 7/8" Tricone Roller Bit | | | | Number of Samples | | Disturbed 9 | Undisturbed NA |
| Casing Diameter (in) 3" I.D. Steel Flush Joint | | | | Casing Depth (ft) 37 | | Water Level (ft.) First 17.2 | Completion 17.5 |
| Casing Hammer Donut | | Weight (lbs) 140 | Drop (in) 30 | Drilling Foreman Anatoliy Kholdilin | | | |
| Sampler 2" O.D. Standard Split Spoon, NQ Core Barrel | | | | Field Engineer Sebastian Tinazzi | | | |
| Sampler Hammer Donut | | Weight (lbs) 140 | Drop (in) 30 | | | | |

| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | |
|-----------------|------------|---------------|--|--------------|-------------|-------------|------|-------------|-----------------------|--------------------|---|---|
| | | | | | | Number | Type | Recov. (in) | Penetr. resist. BL/ft | N-Value (Blows/ft) | | |
| | +82.0 | | 6" Top Soil | | 0 | | | | | | | 2/15/17 -11:00AM began hand augering first 3ft to clear sprinkler system. -1:00PM mobilized rig and took S-2 |
| | +81.5 | | Brown c-f SAND, some gravel, tr. silt, tr. weathered rock, tr. organics (moist) [FILL] | | 1 | S-1 | HA | | | | | |
| | | | Brown m-f SAND, some gravel, tr. brick, tr. organic (moist) [FILL] | | 3 | | | | 71 | | | After hitting refusal at S-3, drill was advanced to verify to of rock. Drill went through to 7ft, take sample at 7ft-9ft. Drill was advanced again at around 7.5ft to verify if top of rock was encountered. Drill advanced without chattering to 9ft. Take sample at 9ft-11ft. |
| | | | Boulder/cobbles some sand (moist) [FILL] | | 4 | S-2 | SS | 20 | 31 | | | 80 |
| | | | Boulder/cobles, some sand (moist) [FILL] | | 5 | S-3 | SS | 3 | 49 | | | 100/3" |
| | | | Cobbles/boulders, some sand (moist) [FILL] | | 6 | | | | 8 | | | |
| | | | Brown m-f SAND, some gravel (moist) [FILL] | | 7 | S-4 | SS | 4 | 18 | | | 100/5" |
| | | | | | 8 | | | | 100/3" | | | 1:45PM end of day |
| | | | | | 9 | | | | | | | 2/16/17 |
| | | | Brown m-f SAND, some gravel (moist) [FILL] | | 10 | S-5 | SS | 12 | 11 | | | 21 |
| | | Class 7 | | | 11 | | | | 10 | | | |
| | | | | | 12 | | | | 12 | | | |
| | | | | | 13 | | | | | | | |
| | | | | | 14 | | | | | | | |
| | | | Gray silty SAND, trace gravel (wet) [FILL] | | 15 | | | | 20 | | | |
| | | | | | 16 | S-6 | SS | 6 | 3 | | | 14 |
| | | | | | 17 | | | | 7 | | | |
| | | | | | 18 | | | | 7 | | | |
| | | | | | 19 | | | | 13 | | | |
| | | | | | 20 | | | | | | | |

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| Project | | Project No. | | | | | | | | | |
|------------------------------------|------------|------------------------|---|--------------|-------------|-------------|------|--------------------------------------|--------------------------------------|---|---|
| American Museum of Natural History | | 170132489 | | | | | | | | | |
| Location | | Elevation and Datum | | | | | | | | | |
| New York, New York | | Approx. 82 ± (NAVD 88) | | | | | | | | | |
| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | |
| | | | | | | Number | Type | Recov. (in) | Penetr. resist. BU/6in | | N-Value (Blows/ft) |
| | +62.0 | | Gray-brown sandy CLAY (wet) [CL] | | 20 | | | | | | |
| | +61.0 | Class 4B | Brown f SAND, trace silt (wet) [SP] | | 21 | S-7 | SS | 20 | 6 9 18 26 | 27 | Split S-7 into A and B. A= top layer of sample, B= bottom layer of sample Hammered 5ft of casing (20ft total) Advanced drill to 25ft -Smooth drilling -Grayish wash |
| | | Class 3A | Gray-brown silty SAND, tr. gravel (wet) [SM] | | 22 | | | | | | |
| | | | | | | 23 | | | | | |
| | | | | | | 24 | | | | | |
| | | | | | | 25 | | | | | |
| | | | Gray-brown silty SAND, tr. gravel (wet) [SM] | | 26 | S-8 | SS | 14 | 18 17 14 17 | 31 | |
| | | | | | 27 | | | | | | |
| | | | | | 28 | | | | | | |
| | | | | | 29 | | | | | | |
| | | | | | 30 | S-9 | SS | 6 | 18 50/3" | 50/3" | Hammered 3" casing to 50ft (prep for rock coring) |
| | +51.0 | | Brown m-f SAND, trace silt, some weathered rock in tip (wet) [SP] | | 31 | | | | | | |
| | | Class 1D | C-1: Gray GNEISS, moderately weathered, m-f grained size minerals, steeply dipping, very close to moderate fracture spacing. | | 32 | | | | | | Start coring rock at 32ft |
| | | | | | 02:30 | 33 | | | | | |
| | | | | | 02:00 | 34 | C-1 | NQ | REC=26"/60" =43% RQD=12"/60" =20% | | |
| | | | | | 02:33 | 35 | | | | | |
| | | | | 01:45 | 36 | | | | | | |
| | | | | 02:20 | 37 | | | | | | 1:50PM end of day |
| | +45.0 | Class 1A | C-2 37'-42': Gray mica SCHIST, m-f grained size minerals, moderately to slightly weathered. Near vertical to near horizontal dipping, close to very close fracture spacing. [Class 1A] | | 38 | | | | | | 2/17/17 -Arrived on site at 7:00AM -7:20AM ADT arrived on site -9:30AM began coring rock. Drilling was halted due to ice on hose. |
| | | | | | 02:10 | 39 | C-2 | NQ | REC=58"/60" =97% RQD=56"/60" =93% | | |
| | | | | | 02:40 | 40 | | | | | |
| | | | | | 02:30 | 41 | | | | | |
| | | | | 03:20 | 42 | | | | | | |
| | | | C-3 42'-47': Gray mica SCHIST, m-f grained size minerals, slightly weathered. Shallow to near vertical dipping, close to very close fracture spacing. [Class 1A] | | 43 | C-3 | NQ | REC=59"/60" =98% RQD=55"/60" =92% | | | |
| | | | | 02:27 | 44 | | | | | | |
| | | | | 02:13 | 45 | | | | | | |
| | | | | 01:50 | | | | | | | |
| | | | | 02:48 | | | | | | | |

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| Project | | | Project No. | | | | | | | | | | | |
|------------------------------------|------------|---------------|------------------------|--------------|-------------|-------------|------|-------------|-----------------------|---|--------------------|----|----|-----------------------|
| American Museum of Natural History | | | 170132489 | | | | | | | | | | | |
| Location | | | Elevation and Datum | | | | | | | | | | | |
| New York, New York | | | Approx. 82 ± (NAVD 88) | | | | | | | | | | | |
| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | | | | |
| | | | | | | Number | Type | Recov. (in) | Penetr. resist BU/6in | | N-Value (Blows/ft) | | | |
| | +37.0 | | | | | | | | | 10 | 20 | 30 | 40 | |
| | | Class 1A | | 02:30 | 45 | C-3 | NQ | | | | | | | |
| | +35.0 | | | 03:20 | 46 | | | | | | | | | |
| | | | | | 47 | | | | | | | | | End of boring at 47ft |
| | | | | | 48 | | | | | | | | | |
| | | | | | 49 | | | | | | | | | |
| | | | | | 50 | | | | | | | | | |
| | | | | | 51 | | | | | | | | | |
| | | | | | 52 | | | | | | | | | |
| | | | | | 53 | | | | | | | | | |
| | | | | | 54 | | | | | | | | | |
| | | | | | 55 | | | | | | | | | |
| | | | | | 56 | | | | | | | | | |
| | | | | | 57 | | | | | | | | | |
| | | | | | 58 | | | | | | | | | |
| | | | | | 59 | | | | | | | | | |
| | | | | | 60 | | | | | | | | | |
| | | | | | 61 | | | | | | | | | |
| | | | | | 62 | | | | | | | | | |
| | | | | | 63 | | | | | | | | | |
| | | | | | 64 | | | | | | | | | |
| | | | | | 65 | | | | | | | | | |
| | | | | | 66 | | | | | | | | | |
| | | | | | 67 | | | | | | | | | |
| | | | | | 68 | | | | | | | | | |
| | | | | | 69 | | | | | | | | | |
| | | | | | 70 | | | | | | | | | |

| | | | | | | | |
|---|--|-------------------------|--|---|--|--|--|
| Project American Museum of Natural History | | | | Project No. 170132489 | | | |
| Location New York, New York | | | | Elevation and Datum Approx. 81 ± (NAVD 88) | | | |
| Drilling Company Aquifer Drilling and Testing | | | | Date Started 2/17/17 | | Date Finished 2/21/17 | |
| Drilling Equipment Ecco Diesel Track Mounted Rig | | | | Completion Depth 60 ft | | Rock Depth 50 ft | |
| Size and Type of Bit 3 7/8" Tricone Roller Bit | | | | Number of Samples Disturbed 13 | | Undisturbed NA | |
| Casing Diameter (in) 3" I.D. Steel Flush Joint | | Casing Depth (ft) 50 | | Water Level (ft.) First ▽ | | Completion 24 HR. ▽ | |
| Casing Hammer Donut | | Weight (lbs) 140 | | Drop (in) 30 | | Drilling Foreman Anatoliy Kholdilin | |
| Sampler 2" O.D. Standard Split Spoon, NQ Core Barrel | | | | Field Engineer Sebastian Tinazzi | | | |
| Sampler Hammer Donut | | Weight (lbs) 140 | | Drop (in) 30 | | | |

| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | | |
|-----------------|------------|---------------|--|--------------|-------------|-------------|------|-------------|-----------------------|---|---|--|
| | | | | | | Number | Type | Recov. (in) | Penetr. resist. BL/ft | | N-Value (Blows/ft) | |
| | +81.0 | | 6" Top Soil | | 0 | | | | | | 2/17/17 -1:00PM hand auger to 3ft to clear sprinkler system. -1:50PM end of the day | |
| | +80.5 | | Brown m-f SAND, trace gravel, trace silt, trace weathered rock (dry) [FILL] | | 1 | S-1 | HA | | | | | |
| | | | Brown m-f SAND, trace gravel, trace organic, trace silt, trace weathered rock (moist) [FILL] | | 2 | | | | | | | |
| | | | Brown m-f SAND, trace gravel, trace organic, trace silt, trace weathered rock (moist) [FILL] | | 3 | | | 8 | | | | |
| | | | Brown m-f SAND, trace organics (leaves), trace silt, trace gravel, trace weathered rock (moist) [FILL] | | 4 | S-2 | SS | 18 | 7 | 15 | | 2/20/17 -8:30AM set up rig |
| | | | Brown m-f SAND, trace organics (leaves), trace silt, trace gravel, trace weathered rock (moist) [FILL] | | 5 | | | 18 | | | | |
| | | | Brown m-f SAND, trace brick, trace organic, trace concrete (moist) [FILL] | | 6 | S-3 | SS | 14 | 6 | 9 | | |
| | | | Brown m-f SAND, trace brick, trace organic, trace concrete (moist) [FILL] | | 7 | | | 4 | | | | |
| | | | Brown m-f SAND, trace brick, trace organics, trace silt (moist) [FILL] | | 8 | S-4 | SS | 8 | 6 | 9 | | |
| | | | Brown m-f SAND, trace brick, trace organics, trace silt (moist) [FILL] | | 9 | | | 5 | | | | |
| | | Class 7 | Brown m-f SAND, trace brick, trace organics, trace silt (moist) [FILL] | | 10 | S-5 | SS | 16 | 6 | 8 | | Hammered 10ft of casing |
| | | | | | 11 | | | 2 | | | | |
| | | | | | 12 | | | | | | | |
| | | | | | 13 | | | | | | | Advanced drill to 15' -Brown wash |
| | | | | | 14 | | | | | | | |
| | | | Cobbles, trace brick, trace m-f sand (moist) | | 15 | S-6 | SS | 1 | 50/1" | 50/1" | | Hammered 5ft of casing (15ft total) |
| | | | | | 16 | | | | | | | |
| | | | | | 17 | | | | | | | |
| | | | | | 18 | | | | | | | |
| | | | | | 19 | | | | | | | Advanced drill to 20ft -A lot of chattering from 15ft-18ft, then smooth. -Brown wash |
| | | | | | 20 | | | | | | | |

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| Project | | Project No. | | | | | | | | | | |
|------------------------------------|------------|------------------------|---|--------------|-------------|-------------|------|-------------|------------------------|---|---|-----|
| American Museum of Natural History | | 170132489 | | | | | | | | | | |
| Location | | Elevation and Datum | | | | | | | | | | |
| New York, New York | | Approx. 81 ± (NAVD 88) | | | | | | | | | | |
| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | | |
| | | | | | | Number | Type | Recov. (in) | Penetr. resist. BU/6in | | N-Value (Blows/ft) | |
| | +61.0 | | | | | | | | 10 20 30 40 | | | |
| [Dotted Pattern] | | Class 3B | Gray brownish silty SAND, some clay (wet) [SM] | | 20 | | | | | | Hammered 5ft of casing (25ft total) | |
| | | | | | 21 | S-7 | SS | 8 | 5 | | | 16 |
| | | | | | 22 | | | | 7 | | | |
| | | | | | 23 | | | | 9 | | | |
| | | | | | 24 | | | | 12 | | | |
| [Diagonal Hatching] | +55.0 | Class 4b | Brown f SAND, trace silt (wet) [SP] | | 25 | | | | | | | |
| | | | Brown and black sandy CLAY (wet) [CL] | | 26 | S-8 | SS | 13 | 9 | | | 11 |
| | | | Brown and black sandy CLAY (wet) [CL] | | 27 | | | | 14 | | | 25 |
| [Dotted Pattern] | +53.0 | Class 3a | Gray fine silty SAND, some fine sand (wet) [SM] | | 28 | S-9 | SS | 11 | 9 | | Advanced drill to 30ft -Smooth drilling -Gray wash Hammered 5ft of casing (30ft total) | |
| | | | | | 29 | | | | 12 | | | 21 |
| | | | | | 30 | | | | 15 | | | |
| | | | | | 31 | | | | 4 | | | |
| | | | | | 32 | | | | 9 | | | |
| [Dotted Pattern] | +44.0 | Class 1d | Brown m-f SAND, some silt, trace weathered rock, trace gravel (wet) [SP] | | 30 | | | | | | Advanced drill to 35ft -Smooth drilling -Brown wash | |
| | | | | | 31 | S-10 | SS | 6 | 28 | | | |
| | | | | | 32 | | | | 23 | | | |
| | | | | | 33 | | | | | | | |
| | | | | | 34 | | | | | | | |
| [Cross-hatching] | | Class 1d | Brown m-f SAND, some gravel, some weathered rock (tip of spoon has 1" of weathered rock) (wet) [SW] | | 35 | | | | | | 2:00PM end of day 2/21/17 -7:00AM arrived on site met with ADT crew. | |
| | | | | | 36 | S-11 | SS | 14 | 39 | | | 157 |
| | | | | | 37 | | | | 72 | | | |
| | | | | | 38 | | | | 85 | | | |
| | | | | | 39 | | | | 50/1" | | | |
| [Cross-hatching] | | Class 1d | Brown c-f SAND, some weathered rock (wet) [SP] | | 40 | | | | | | | |
| | | | | | 41 | S-12 | SS | 13 | 54 | | | 172 |
| | | | | | 42 | | | | 76 | | | |
| | | | | | 43 | | | | 96 | | | |
| | | | | | 44 | | | | 100/4" | | | |
| | | 45 | | | | | | | | | | |

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| Project | | Project No. | | | | | | | | | | | | | | | | | | |
|------------------------------------|------------|------------------------|--|---|---|---|------|-------------------|---------------------------|---|--------------------|--|--|--|--|--|--|--|--|--|
| American Museum of Natural History | | 170132489 | | | | | | | | | | | | | | | | | | |
| Location | | Elevation and Datum | | | | | | | | | | | | | | | | | | |
| New York, New York | | Approx. 81 ± (NAVD 88) | | | | | | | | | | | | | | | | | | |
| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | | | | | | | | | | |
| | | | | | | Number | Type | Recov. (in) | Penetr. resist. BU/6in | | N-Value (Blows/ft) | | | | | | | | | |
| | +36.0 | Class 1d | Soft c-f grained MICA SCHIST [Class 1d] | | 45 | S-13 | SS | 15 | 55 47 103 100/3" | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | +31.0 | Class 1B | C-1 (Good Quality) 50'-55': Gray mica SCHIST, m-f grained size minerals, slightly to moderately weathered. Shallow to near vertical dipping, close to very close fracture spacing. [Class 1B] | | 04:25 51 07:30 52 06:25 53 06:40 54 07:15 55 | C-1 | NQ | REC=60"/60" =100% | RQD=48"/60" =80% | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | Class 1B | C-2 (good Quality) 55'-56.5': Gray mica SCHIST, moderately to highly weathered 56.5'-60': Gray mica SCHIST, m-f grained size minerals, slightly weathered, shallow to steeply dipping, close to very close fracture spacing. [Class 1B] | | 06:10 56 06:20 57 06:05 58 07:10 59 06:45 60 | C-2 | NQ | REC=58"/60" =97% | RQD=42"/60" =70% | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | +21.0 | | | | 60 | | | | | End of boring at 60ft (12:30PM) | | | | | | | | | | |
| | | | | | 61 | | | | | | | | | | | | | | | |
| | | | | | 62 | | | | | | | | | | | | | | | |
| | | | | | 63 | | | | | | | | | | | | | | | |
| | | | | | 64 | | | | | | | | | | | | | | | |
| | | | | | 65 | | | | | | | | | | | | | | | |
| | | | | | 66 | | | | | | | | | | | | | | | |
| | | | | | 67 | | | | | | | | | | | | | | | |
| | | | | | 68 | | | | | | | | | | | | | | | |
| | | | | | 69 | | | | | | | | | | | | | | | |
| | | | | | 70 | | | | | | | | | | | | | | | |

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|---|--|---------------------|--|---|--|---------------------------------------|--|
| Project American Museum of Natural History | | | | Project No. 170132489 | | | |
| Location New York, New York | | | | Elevation and Datum Approx. 84 ± (NAVD 88) | | | |
| Drilling Company Aquifer Drilling and Testing | | | | Date Started 2/7/17 | | Date Finished 2/15/17 | |
| Drilling Equipment Ecco Diesel Track Mounted Rig | | | | Completion Depth 36 ft | | Rock Depth 26 ft | |
| Size and Type of Bit 3 7/8" Tricone Roller Bit | | | | Number of Samples Disturbed 7 | | Undisturbed NA | |
| Casing Diameter (in) 3" I.D. Steel Flush Joint | | | | Casing Depth (ft) 36 | | Core 2 | |
| Casing Hammer Donut | | Weight (lbs) 140 | | Drop (in) 30 | | Water Level (ft.) First Completion | |
| Sampler 2" O.D. Standard Split Spoon, NQ Core Barrel | | | | Drilling Foreman Anatoliy Kholdilin | | | |
| Sampler Hammer Donut | | Weight (lbs) 140 | | Drop (in) 30 | | Field Engineer Sebastian Tinazzi | |

| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | |
|-----------------|------------|---------------|--|--------------|-------------|-------------|------|-------------|-----------------------|---|--|
| | | | | | | Number | Type | Recov. (in) | Penetr. resist. BL/ft | | N-Value (Blows/ft) |
| | +84.0 | | 6" Top Soil | | 0 | | | | | | |
| | +83.5 | | | | 1 | S-1 | HA | | | | 2/7/17 -12:15PM ADT began hand augering to 3ft to clear/check for sprinkler system. |
| | | | Brown c-m SAND, some gravel, trace silt, trace roots/leaves (dry) [FILL] | | 2 | | | | | | |
| | | | Brown m-f SAND, trace brick, trace gravel, trace silt, trace weathered rock, trace organics (moist) [FILL] | | 3 | | | 5 | | | |
| | | | Brown m-f SAND, trace gravel, trace weathered rock, trace brick (moist) [FILL] | | 4 | S-2 | SS | 10 | 5 | 11 | 2/14/17 -10:10AM mobilized rig from LB-4 (OW) and took sample S-2 |
| | | | Brown m-f SAND, trace gravel, trace weathered rock, trace brick (moist) [FILL] | | 5 | | | 10 | | | |
| | | | Brown m-f SAND, trace gravel, trace silt, trace weathered rock (moist) [FILL] | | 6 | S-3 | SS | 9 | 6 | 12 | |
| | | | Brown m-f SAND, trace gravel, trace silt, trace weathered rock (moist) [FILL] | | 7 | | | 8 | 6 | | |
| | | | Brown m-f SAND, some gravel, trace silt, trace weathered rock, trace brick (moist) [FILL] | | 8 | S-4 | SS | 18 | 8 | 16 | -Hammered 10ft of casing |
| | | | Brown m-f SAND, some gravel, trace silt, trace weathered rock, trace brick (moist) [FILL] | | 9 | | | 9 | 8 | | |
| | | | | | 10 | S-5 | SS | 15 | 7 | 13 | |
| | | | | | 11 | | | 6 | 7 | | |
| | | | | | 12 | | | | | | |
| | | | | | 13 | | | | | | |
| | | | | | 14 | | | | | | |
| | | | Brown m-f SAND, some gravel, trace silt (wet) [FILL] | | 15 | | | 10 | | | Advanced drill to 15ft -Smooth drilling -Brown wash |
| | | | | | 16 | S-6 | SS | 4 | 15 | 106 | |
| | | | | | 17 | | | 91 | | | |
| | | | | | 18 | | | 81 | | | |
| | | | | | 19 | | | | | | |
| | | | | | 20 | | | | | | Hammered 5ft of casing (15ft total) |

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| Project | | Project No. | | | | | | | | | |
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| American Museum of Natural History | | 170132489 | | | | | | | | | |
| Location | | Elevation and Datum | | | | | | | | | |
| New York, New York | | Approx. 84 ± (NAVD 88) | | | | | | | | | |
| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | |
| | | | | | | Number | Type | Recov. (in) | Penetr. resist. BU/6in | | N-Value (Blows/ft) |
| | +64.0 | Class 7 | Gray mica schist rock fragments [FILL] | | 20 | | | | | | |
| | +63.0 | Class 4a | Brown sandy CLAY, some silt (wet) [CL] | | 21 | S-7 | SS | 18 | 27 | | Advanced drill to 20ft -Smooth drilling -Brown wash |
| | +62.0 | Class 3b | | | 22 | | | | 20 | | Hammered 5ft of casing (20ft total) |
| | +60.0 | Class 1D | | | 23 | | | | 20 | | |
| | +58.0 | Class 1B | C-1 26'-31': Gray mica SCHIST, m-f grained size minerals. slightly to moderately weathered. Steeply to nearly vertical dipping, close to very close fracture spacing. [Class 1B] | 02:07 | 24 | | | | 24 | | Advanced drill to 25ft -A lot of chattering at around 24ft. Top of rock expected 25ft-26ft. 1:50PM -End of day |
| | +53.0 | Class 1A | C-2 31'-36': Gray mica SCHIST, m-f grained size minerals, fresh to slightly weathered, shallow to near vertical dipping, very close fracture spacing. [Class 1A] | 01:53 | 25 | | | | | | |
| | +48.0 | | | 01:45 | 26 | C-1 | NQ | | | | 2/15/17 -7:00AM arrived on site. -7:30AM ADT arrived on site. -8:30AM set up rig. |
| | | | | 01:52 | 27 | | | | | | |
| | | | | 01:52 | 28 | | | | | | End of boring at 36ft. |
| | | | | 02:16 | 29 | | | | | | |
| | | | | 02:00 | 30 | | | | | | |
| | | | | 02:00 | 31 | | | | | | |
| | | | | 03:00 | 32 | C-2 | NQ | | | | |
| | | | | 03:00 | 33 | | | | | | |
| | | | | 03:00 | 34 | | | | | | |
| | | | | 03:00 | 35 | | | | | | |
| | | | | | 36 | | | | | | |
| | | | | | 37 | | | | | | |
| | | | | | 38 | | | | | | |
| | | | | | 39 | | | | | | |
| | | | | | 40 | | | | | | |
| | | | | | 41 | | | | | | |
| | | | | | 42 | | | | | | |
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| | | | | | 44 | | | | | | |
| | | | | | 45 | | | | | | |

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|---|--|---------------------|-----------------|---|--|------------------------------------|--------------------|
| Project American Museum of Natural History | | | | Project No. 170132489 | | | |
| Location New York, New York | | | | Elevation and Datum Approx. 84 ± (NAVD 88) | | | |
| Drilling Company Aquifer Drilling and Testing | | | | Date Started 2/7/17 | | Date Finished 2/13/17 | |
| Drilling Equipment Ecco Diesel Track Mounted Rig | | | | Completion Depth 60 ft | | Rock Depth 50 ft | |
| Size and Type of Bit 3 7/8" Tricone Roller Bit | | | | Number of Samples | | Disturbed 12 | Undisturbed NA |
| Casing Diameter (in) 3" I.D. Steel Flush Joint | | | | Casing Depth (ft) 50 | | Water Level (ft.) First 19.1 | Completion 19.8 |
| Casing Hammer Donut | | Weight (lbs) 140 | Drop (in) 30 | Drilling Foreman Anatoliy Kholdilin | | | |
| Sampler 2" O.D. Standard Split Spoon, NQ Core Barrel | | | | Field Engineer Sebastian Tinazzi | | | |
| Sampler Hammer Donut | | Weight (lbs) 140 | Drop (in) 30 | | | | |

| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | |
|-----------------|------------|---------------|--|--------------|-------------|-------------|------|-------------|-----------------------|---|--|
| | | | | | | Number | Type | Recov. (in) | Penetr. resist. BL/ft | | N-Value (Blows/ft) |
| | +84.0 | | | | 0 | | | | | | |
| | +83.5 | | 6" Top Soil | | 0 | | | | | | 2/7/17 -ADT arrived on site at 9:15AM, began mobilizing equipment -12:15PM began hand augering to 3ft to clear/check for sprinkler system. -1:30PM end of day, mobilized rig back to parking lot. |
| | | | Brown c-f SAND, some gravel, trace silt, trace roots/leaves (dry) [FILL] | | 1 | S-1 | HA | | | | |
| | | | Light brown m-f SAND, trace gravel, trace silt, some weathered rock (moist) [SW] | | 3 | | | | 23 | | |
| | | | Brown m-f SAND, trace gravel, trace silt, some weathered rock (moist) [FILL] | | 4 | S-2 | SS | 16 | 14 | 26 | |
| | | | | | 5 | | | | 12 | | |
| | | | Brown m-f SAND, trace gravel, trace silt, some weathered rock (moist) [FILL] | | 6 | S-3 | SS | 15 | 13 | 42 | 2/8/17 -Arrived on site at 7:00AM, met with ADT and began mobilizing equipment. -Began drilling at 8:50AM |
| | | | Brown m-f gravelly SAND, trace silt (wet) [FILL] | | 7 | | | | 22 | | |
| | | | | | 8 | S-4 | SS | 3 | 17 | 30 | |
| | | | | | 9 | | | | 20 | | |
| | | | Brown m-f SAND, some gravel, trace silt, trace weathered rock (wet) [FILL] | | 10 | S-5 | SS | 10 | 13 | | Install 10ft of casing |
| | | Class 7 | | | 11 | | | | 12 | 12 | |
| | | | | | 12 | | | | 9 | | |
| | | | | | 13 | | | | 5 | | |
| | | | | | 14 | | | | 7 | | |
| | | | | | 15 | | | | 7 | | |
| | | | Light brown m-f gravelly SAND, trace weathered rock (wet) [FILL] | | 16 | S-6 | SS | 6 | 6 | 20 | Advanced drill to 15ft -Smooth drilling -Brown wash |
| | | | | | 17 | | | | 8 | | |
| | | | | | 18 | | | | 12 | | Hammered 5ft of casing (15ft total) |
| | | | | | 19 | | | | 10 | | |
| | | | | | 20 | | | | | | Advanced drill to 20ft -At around 16ft rig started losing water (hole is collapsing) |

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| Project | | Project No. | | | | | | | | | | |
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| American Museum of Natural History | | 170132489 | | | | | | | | | | |
| Location | | Elevation and Datum | | | | | | | | | | |
| New York, New York | | Approx. 84 ± (NAVD 88) | | | | | | | | | | |
| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | | |
| | | | | | | Number | Type | Recov. (in) | Penetr. resist. BU/6in | | N-Value (Blows/ft) | |
| [Diagonal Hatching] | +64.0 | Class 4b | Brown sandy CLAY, some silt, trace gravel (wet) [CL] | | 20 | | | | | | | |
| | | | | | S-7 | SS | 18 | 9 | 10 20 30 40 | | | |
| | | | | | 21 | | | | | | | |
| | | | | | 22 | | | | | | | Hammered 5ft of casing (20ft total) |
| | | | | | 23 | | | | | | | |
| | +60.5 | Class 3A | Light brown/tan fine SAND, some silt (wet) [SM] | | 24 | | | | | | | |
| | | | | | S-8 | SS | 14 | 12 | | | | |
| | | | | | 25 | | | | | | | |
| | | | | | 26 | | | | | | | |
| | | | | | 27 | | | | | | | Advanced drill to 25ft -Smooth drill -Gray wash |
| | | | | | 28 | | | | | | | |
| | | | | | 29 | | | | | | | |
| | +55.5 | Class 3B | Brown m-f SAND, some silt, trace gravel (wet) [SM] | | 30 | | | | | | | |
| | | | | | S-9 | SS | 13 | 12 | | | | |
| | | | | | 31 | | | | | | | |
| | | | | | 32 | | | | | | | |
| | | | | | 33 | | | | | | | |
| | +50.5 | Class 3A | Brown m-f SAND, trace gravel, trace silt, some weathered rock (wet) [SP] | | 34 | | | | | | | |
| | | | | | S-10 | SS | 15 | 12 | | | | |
| | | | | | 35 | | | | | | | |
| | | | | | 36 | | | | | | | |
| | | | | | 37 | | | | | | | |
| | | | | | 38 | | | | | | | |
| | | | | | 39 | | | | | | | |
| | +44.0 | | Boulder | | 40 | | | | | | | |
| | +43.0 | Class 3A | | | 41 | | | | | | | |
| | | | | | C-0 | NQ | | | | | | |
| | | | | | 42 | | | | | | | |
| | | | | | 43 | | | | | | | |
| | | | | | 44 | | | | | | | |
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1:45PM end of day

2/10/17
 -Arrived on site at 7:00AM
 -7:20AM ADT arrived and began mobilizing rig
 -8:55AM removed spoon (S-10) that was left on 2/8/17
 -Advanced casing to 40ft
 Gear line from rig broke, ADT called shop to get replacement

2/16/17
 -Arrived on site at 7:00AM
 -Begin coring at 9:50AM (ADT fix the gear line, 8AM to 9:45AM)
 -Boulder between 40ft-45ft. No rock encountered.

| Project | | Project No. | | | | | | | | | | | | |
|------------------------------------|------------|------------------------|---|--------------|-------------|-------------|------|-------------------|------------------------|---|--------------------|--|--|--|
| American Museum of Natural History | | 170132489 | | | | | | | | | | | | |
| Location | | Elevation and Datum | | | | | | | | | | | | |
| New York, New York | | Approx. 84 ± (NAVD 88) | | | | | | | | | | | | |
| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | | | | |
| | | | | | | Number | Type | Recov. (in) | Penetr. resist. BU/6in | | N-Value (Blows/ft) | | | |
| | +39.0 | Class 3A | Brown c-f SAND, trace gravel, trace silt, trace weathered rock (wet) [SW] | | 45 | S-12 | SS | 24 | 28 | | | | | Advanced casing to 45ft |
| | 46 | | | | 41 | | | | | 105 | | | | |
| | 47 | | | | 64 | | | | | | | | | |
| | 48 | | | | 74 | | | | | | | | | |
| | +35.5 | Class 1D | C-1 50'-55': Gray SCHIST, m-f grained size minerals, fresh to slightly weathered. Very close fracture spacings, steeply dipping (16" from top). [Class 1A] | | 49 | C-1 | NQ | REC=58"/60" =97% | RQD=58"/60" =97% | | | | | End of boring at 60ft. -Install observation well (10ft of screen and 49ft of riser) Refer to well construction log for well construction details. -1:45PM end of day mobilize rig back to parking lot |
| | 50 | | | | | | | | | | | | | |
| | 51 | | | | | | | | | | | | | |
| | 52 | | | | | | | | | | | | | |
| | 53 | | | | | | | | | | | | | |
| | 54 | | | | | | | | | | | | | |
| | 55 | | | | | | | | | | | | | |
| | 56 | | | | | | | | | | | | | |
| | 57 | | | | | | | | | | | | | |
| | 58 | | | | | | | | | | | | | |
| | +34.0 | Class 1A | C-2 55'-60': Gray mica SCHIST, m-f grained size minerals, slightly weathered. Very close to close fracture spacing, near horizontal to steeply dipping. [Class 1A] | | 59 | C-2 | NQ | REC=60"/60" =100% | RQD=60"/60" =100% | | | | | |
| | 60 | | | | | | | | | | | | | |
| | 61 | | | | | | | | | | | | | |
| | 62 | | | | | | | | | | | | | |
| | 63 | | | | | | | | | | | | | |
| | 64 | | | | | | | | | | | | | |
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| | 66 | | | | | | | | | | | | | |
| | 67 | | | | | | | | | | | | | |
| | 68 | | | | | | | | | | | | | |
| | 69 | | | | | | | | | | | | | |
| | 70 | | | | | | | | | | | | | |

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| | | | | | | | |
|---|--|-------------------------|--|---|--|--|--|
| Project American Museum of Natural History | | | | Project No. 170132489 | | | |
| Location New York, New York | | | | Elevation and Datum Approx. 68 ± (NAVD 88) | | | |
| Drilling Company Aquifer Drilling and Testing | | | | Date Started 2/27/17 | | Date Finished 2/27/17 | |
| Drilling Equipment Ecco Diesel Track Mounted Rig | | | | Completion Depth 33 ft | | Rock Depth 23 ft | |
| Size and Type of Bit 3 7/8" Tricone Roller Bit | | | | Number of Samples Disturbed 7 | | Undisturbed NA | |
| Casing Diameter (in) 3" I.D. Steel Flush Joint | | Casing Depth (ft) 23 | | Water Level (ft.) First ▽ | | Completion ▽ | |
| Casing Hammer Donut | | Weight (lbs) 140 | | Drop (in) 30 | | Drilling Foreman Anatoliy Kholdilin | |
| Sampler 2" O.D. Standard Split Spoon, NQ Core Barrel | | | | Field Engineer Sebastian Tinazzi | | | |
| Sampler Hammer Donut | | Weight (lbs) 140 | | Drop (in) 30 | | | |

| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | | |
|-----------------|------------|---------------|--|--|-------------|-------------|------|-------------|-----------------------|---|--|------------------------|
| | | | | | | Number | Type | Recov. (in) | Penetr. resist. BL/ft | | N-Value (Blows/ft) | |
| | +68.0 | | 8" Reinforced concrete slab | | 0 | | | | | | 2/27/17 -7:00AM arrived on site -7:30AM ADT arrived on site -7:50 ADT began coring through concrete slab. -8:50AM took S-1 | |
| | +67.0 | | 4" gravel layer | | 1 | CORE | | | | | | |
| | | Class 7 | Brown, gray m-f SAND, trace silt, trace gravel, trace brick, trace weathered rock (moist) [FILL] | | 2 | S-1 | SS | 16 | 11 | 18 | | |
| | | | Brown m-f SAND, some gravel, trace silt, trace weathered rock (moist) [FILL] | | 3 | | | | 7 | | | |
| | | | Brown m-f SAND, some weathered rock, trace gray silty sand (moist) [FILL] | | 4 | S-2 | SS | 4 | 8 | 7 | 15 | |
| | | Class 4b | Gray sandy CLAY, some silt (wet) [CL] | | 5 | | | 3 | | | | |
| | +61.0 | | | | | 6 | S-3 | SS | 7 | 8 | 12 | |
| | | Class 3A | Gray, light brown fine SAND, some silt, trace weathered rock (wet) [SP] | | 7 | S-4 | SS | 11 | 5 | 15 | | |
| | +59.0 | | | | | 8 | | | 10 | | | |
| | | Class 1D | | | 9 | | | 16 | | | | |
| | | | | | | 10 | S-5 | SS | 16 | 19 | 38 | Install 10ft of casing |
| | +55.0 | | | Weathered rock, some m-f sand, trace gravel (wet) [Class 1d] | | 11 | | | 20 | 18 | 42 | |
| | | | | | 12 | | | | | | | |
| | | | | | 13 | | | | | | | |
| | | | | | 14 | | | | | | | |
| | | | | | 15 | S-6 | SS | 5 | 8 | 100/5" | Advanced drill to 15ft -Gray to brown wash -Smooth drilling | |
| | | | | | 16 | | | | | | | |
| | | | | | 17 | | | | | | | |
| | | | | | 18 | | | | | | | |
| | | | | | 19 | | | | | | | |
| | | | | | 20 | | | | | | Advanced drill to 20ft -Brown wash -A lot of chattering from 16ft-20ft | |

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| Project | | Project No. | | | | | | | | | | |
|------------------------------------|------------|------------------------|--|---|-------------|-------------|------|------------------|------------------------|---|--------------------|--|
| American Museum of Natural History | | 170132489 | | | | | | | | | | |
| Location | | Elevation and Datum | | | | | | | | | | |
| New York, New York | | Approx. 68 ± (NAVD 88) | | | | | | | | | | |
| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | | |
| | | | | | | Number | Type | Recov. (in) | Penetr. resist. BU/6in | | N-Value (Blows/ft) | |
| | +48.0 | Class 1D | Weathered rock (3-inch fragment of mica SCHIST) | | 20 | S-7 | SS | 1 | 50/3" | 50/3" | | |
| | | | | | | | | | | | | |
| | +45.0 | Class 1A | C-1 23'-28': Gray GNEISS, m-f grained size minerals, fresh to slightly weathered. Shallow dipping, close to very close fracture spacing. [Class 1A] | 04:27 | 23 | C-1 | NQ | REC=56"/60" =93% | RQD=53"/60" =88% | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | C-2 | 28'-33': Gray GNEISS, m-f grained size minerals, fresh to slightly weathered. Shallow to near horizontal dipping, very close fracture spacing. [Class 1A] | 05:33 | 28 | C-2 | NQ | REC=60"/60" =100% | RQD=59"/60" =98% | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | +35.0 | | | 06:07 | 29 | | | | | | | |
| | | | | 06:57 | 30 | | | | | | | |
| | | | | 07:05 | 31 | | | | | | | |
| | | | | 06:30 | 32 | | | | | | | |
| | | | | 06:45 | 33 | | | | | | | |
| | | | | | 34 | | | | | | | |
| | | | | | 35 | | | | | | | |
| | | | | | 36 | | | | | | | |
| | | | | | 37 | | | | | | | |
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Began coring through rock. Smooth drilling, no loss of water or pressure throughout coring.

Longer coring time than usual (denser rock expected).

End of boring at 33ft

| | | | | | | | |
|---|--|---------------------|--|---|--|--|--|
| Project American Museum of Natural History | | | | Project No. 170132489 | | | |
| Location New York, New York | | | | Elevation and Datum Approx. 67 ± (NAVD 88) | | | |
| Drilling Company Aquifer Drilling and Testing | | | | Date Started 2/22/17 | | Date Finished 2/23/17 | |
| Drilling Equipment Ecco Diesel Track Mounted Rig | | | | Completion Depth 35 ft | | Rock Depth 25 ft | |
| Size and Type of Bit 3 7/8" Tricone Roller Bit | | | | Number of Samples 6 | | Disturbed NA | |
| Casing Diameter (in) 3" I.D. Steel Flush Joint | | | | Casing Depth (ft) 25 | | Core 3 | |
| Casing Hammer Donut | | Weight (lbs) 140 | | Drop (in) 30 | | Water Level (ft.) First Completion | |
| Sampler 2" O.D. Standard Split Spoon, NQ Core Barrel | | | | Drilling Foreman Anatoliy Kholdilin | | | |
| Sampler Hammer Donut | | Weight (lbs) 140 | | Drop (in) 30 | | Field Engineer Sebastian Tinazzi | |

| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | | |
|-----------------|------------|---------------|---|--------------|-------------|-------------|------|-------------|-----------------------|---|--|---|
| | | | | | | Number | Type | Recov. (in) | Penetr. resist. BL/ft | | N-Value (Blows/ft) | |
| | +67.0 | | 8" Reinforced concrete slab 4" gravel layer | | 0 | | | | | | 2/22/17 -7:00AM arrived on site -7:20AM ADT arrived on site -8:00AM began mobilizing rig -10:30AM began coring through concrete slab | |
| | +66.0 | | Brown, gray m-f SAND, trace gravel, trace silt, trace weathered rock (moist) [Fill] | | 1 | S-1 | SS | 7 | 3 | | | |
| | | Class 7 | Brown coarse SAND, trace gravel (moist) [Fill] | | 2 | | | | 3 | | | |
| | | | Brown c-m SAND, trace gravel, trace silt, trace weathered rock (moist) [Fill] | | 3 | S-2 | SS | 7 | 2 | | | |
| | | | | | 4 | | | | 3 | | | |
| | | | | | 5 | S-3 | SS | 9 | 6 | | | |
| | | | | | 6 | | | | 3 | | | |
| | +60.0 | | Gray silty CLAY, trace sand (wet) [CL] | | 7 | S-4 | SS | 8 | 4 | | | |
| | | Class 6 | | | 8 | | | | 6 | | | |
| | +58.0 | | Gray c-f SAND, trace silt (wet) [SW] | | 9 | S-5 | SS | 15 | 1 | | | |
| | | Class 3a | | | 10 | | | | 2 | | | |
| | | | | | 11 | | | | 1 | | | |
| | +56.0 | | C-1: 3-inches fragments of gray mica SCHIST | | 12 | | | | 6 | | | |
| | | Class 1d | | | 13 | | | | 16 | | | |
| | | | | 01:30 | 14 | C-1 | NQ | | 25 | | | Advanced drill to 15ft -Brown wash -A lot of chattering at 13ft, drill not advancing, probably top of rock. |
| | | | | 01:40 | 15 | | | | 31 | | | Core dropped from 15ft to 16ft within seconds. No competent rock recovered. |
| | | | | 00:00 | 16 | | | | | | | |
| | | | | 01:05 | 17 | | | | | | | |
| | | | | 01:10 | 18 | | | | | | | |
| | | | | | 19 | | | | | | | End of the day |
| | | | | | 20 | | | | | | | 2/23/17 -7:00AM arrived on site and met with ADT crews. |

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| Project | | Project No. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|------------|------------------------|---|--------------|-------------|-------------|------|-------------------|------------------------|---|--------------------|--|--|----|----|----|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| American Museum of Natural History | | 170132489 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Location | | Elevation and Datum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| New York, New York | | Approx. 67 ± (NAVD 88) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Number | Type | Recov. (in) | Penetr. resist. BU/6in | | N-Value (Blows/ft) | | | | | | | | | | | | | | | | | | | | | | |
| | +47.0 | Class 1d | Brown-gray c-f grained soft rock (wet) | | 20 | S-6 | SS | 14 | 25 | <table border="1"> <tr><td>10</td><td>20</td><td>30</td><td>40</td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table> | | | | 10 | 20 | 30 | 40 | | | | | | | | | | | | | | | | |
| | 10 | | | | 20 | | | | | | | | | 30 | 40 | | | | | | | | | | | | | | | | | | |
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| 21 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | 45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | 50/3" | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | +42.0 | Class 1A | C-2 25'-30': Gray mica SCHIST, m-f grained size minerals, fresh to slightly weathered. Shallow dipping, very close fracture spacing (fractures are predominantly at depth 28'-30'). [Class 1A] | | 25 | C-2 | NQ | REC=60"/60" =100% | RQD=59"/60" =98% | <table border="1"> <tr><td>10</td><td>20</td><td>30</td><td>40</td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table> | | | | 10 | 20 | 30 | 40 | | | | | | | | | | | | | | | | |
| | 10 | | | | 20 | | | | | | | | | 30 | 40 | | | | | | | | | | | | | | | | | | |
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| | 26 | | | | 10:11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 27 | | | | 08:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 28 | | | | 08:05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 29 | | | | 06:45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | 05:30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | 04:48 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | 04:05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 33 | 10:40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 34 | 10:05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | +32.0 | Class 1A | C-3 30'-35': Gray mica SCHIST, m-f grained size minerals, fresh to slightly weathered. Near horizontal to near vertical dipping (predominantly at 32'-33'), close to very close fracture spacing. [Class 1A] | | 35 | C-3 | NQ | REC=60"/60" =100% | RQD=52"/60" =87% | <table border="1"> <tr><td>10</td><td>20</td><td>30</td><td>40</td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table> | | | | 10 | 20 | 30 | 40 | | | | | | | | | | | | | | | | |
| | 10 | | | | 20 | | | | | | | | | 30 | 40 | | | | | | | | | | | | | | | | | | |
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| | 36 | | | | 09:47 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 37 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 44 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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95

Advanced drill to 20ft to verify if we are still within rock layer.

Hammered 3" casing to 25ft to begin rock coring.

End of boring at 35ft.

| | | | | | | | |
|---|---------------------|-------------------------|--|--|--|--------------------------|--|
| Project American Museum of Natural History | | | | Project No. 170132489 | | | |
| Location New York, New York | | | | Elevation and Datum Approx. 67 ± (NAVD 88) | | | |
| Drilling Company Aquifer Drilling and Testing | | | | Date Started 2/28/17 | | Date Finished 2/28/17 | |
| Drilling Equipment Ecco Diesel Track Mounted Rig | | | | Completion Depth 21 ft | | Rock Depth 11 ft | |
| Size and Type of Bit 3 7/8" Tricone Roller Bit | | | | Number of Samples Disturbed 3 Undisturbed NA Core 2 | | | |
| Casing Diameter (in) 3" I.D. Steel Flush Joint | | Casing Depth (ft) 11 | | Water Level (ft.) First 3.3 Completion 4.5 | | 24 HR. 4.5 | |
| Casing Hammer Donut | Weight (lbs) 140 | Drop (in) 30 | | Drilling Foreman Anatoliy Kholdilin | | | |
| Sampler 2" O.D. Standard Split Spoon, NQ Core Barrel | | | | Field Engineer Sebastian Tinazzi | | | |
| Casing Hammer Donut | Weight (lbs) 140 | Drop (in) 30 | | | | | |

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| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | |
|-----------------|------------|---------------|---|--------------|-------------|-------------|------|--------------------|-----------------------|---|--------------------|
| | | | | | | Number | Type | Recov. (in) | Penetr. resist. BL/ft | | N-Value (Blows/ft) |
| | +67.0 | | 8" Reinforced concrete slab | | 0 | | | | | | |
| | +66.0 | | 4" Gravel Layer | | 1 | S-1 | SS | 8 | 70/5" | | |
| | +64.0 | Class 7 | Gray SAND and rock fragments (dry) [FILL] | | 2 | | | | | | 70/5" |
| | +64.0 | | Weathered MICA SCHIST rock fragments | | 3 | | | | | | |
| | +62.0 | | | | 4 | S-2 | SS | 20 | 50/2" | | 69 |
| | +62.0 | | | | 5 | | | | | | |
| | +62.0 | Class 1D | Weathered MICA SCHIST rock fragments | | 8 | S-3 | SS | 4 | 50/3" | | 50/3" |
| | +62.0 | | | | 9 | | | | | | |
| | +62.0 | | | | 10 | | | | | | |
| | +56.0 | | C-1 (Good Quality) | | 11 | | | | | | |
| | +56.0 | | 11'-16': Gray mica SCHIST, m-f grained size minerals, slightly to moderately weathered. Near vertical to near horizontal dipping, close to very close fracture spacing. Strong strength. [Class 1B] | 03:55 | 12 | | | | | | |
| | +56.0 | | | 04:12 | 13 | C-1 | NQ | REC=60"/60" = 100% | RQD=42"/60" = 70% | | |
| | +56.0 | | | 01:58 | 14 | | | | | | |
| | +56.0 | | | 02:55 | 15 | | | | | | |
| | +56.0 | Class 1B | C-2 (Good Quality) | 01:42 | 16 | | | | | | |
| | +56.0 | | 16'-21': Gray mica SCHIST, m-f grained size minerals, fresh to slightly weathered. shallow to near vertical dipping, close to very close fracture spacing. Strong strength. [Class 1B] | 04:05 | 17 | C-2 | NQ | REC=60"/60" = 100% | RQD=46"/60" = 77% | | |
| | +56.0 | | | 03:45 | 18 | | | | | | |
| | +56.0 | | | 03:30 | 19 | | | | | | |
| | +56.0 | | | 03:35 | 20 | | | | | | |

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| Project American Museum of Natural History | | | | Project No. 170132489 | | | | | | | | | | |
|---|------------|---------------|--------------------|---|-------------|-------------|------|-------------|------------------------|---|--------------------|----|----|--|
| Location New York, New York | | | | Elevation and Datum Approx. 67 ± (NAVD 88) | | | | | | | | | | |
| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Coring (min) | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | | | | |
| | | | | | | Number | Type | Recov. (in) | Penetr. resist. BU/6in | | N-Value (Blows/ft) | | | |
| ▽ ▽ ▽ ▽ ▽ | +47.0 | Class 1B | | 04:10 | 20 | C-2 | NQ | | | 10 | 20 | 30 | 40 | End of boring at 21ft - Install observation well (10ft riser, 10ft screen) Refer to well construction log for well construction details. |
| | +46.0 | | | | 21 | | | | | | | | | |
| | | | | | 22 | | | | | | | | | |
| | | | | | 23 | | | | | | | | | |
| | | | | | 24 | | | | | | | | | |
| | | | | | 25 | | | | | | | | | |
| | | | | | 26 | | | | | | | | | |
| | | | | | 27 | | | | | | | | | |
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| | | | | | 30 | | | | | | | | | |
| | | | | | 31 | | | | | | | | | |
| | | | | | 32 | | | | | | | | | |
| | | | | | 33 | | | | | | | | | |
| | | | | | 34 | | | | | | | | | |
| | | | | | 35 | | | | | | | | | |
| | | | | | 36 | | | | | | | | | |
| | | | | | 37 | | | | | | | | | |
| | | | | | 38 | | | | | | | | | |
| | | | | | 39 | | | | | | | | | |
| | | | | | 40 | | | | | | | | | |
| | | | | | 41 | | | | | | | | | |
| | | | | | 42 | | | | | | | | | |
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|---|--|------------------------|-----------------|---|--|-------------------------|-------------------|
| Project American Museum of Natural History | | | | Project No. 170132489 | | | |
| Location New York, New York | | | | Elevation and Datum Approx. 85 ± (NAVD 88) | | | |
| Drilling Company Aquifer Drilling and Testing | | | | Date Started 3/1/17 | | Date Finished 3/1/17 | |
| Drilling Equipment Ecco Diesel Track Mounted Rig | | | | Completion Depth 12 ft | | Rock Depth 12 ft | |
| Size and Type of Bit 3 7/8" Tricone Roller Bit | | | | Number of Samples 6 | | Disturbed 6 | Undisturbed NA |
| Casing Diameter (in) 3" I.D. Steel Flush Joint | | Casing Depth (ft) 0 | | Water Level (ft.) First | | Completion | Core NA |
| Casing Hammer Donut | | Weight (lbs) 140 | Drop (in) 30 | Drilling Foreman Anatoliy Kholdilin | | | |
| Sampler 2" O.D. Standard Split Spoon, NQ Core Barrel | | | | Field Engineer Sebastian Tinazzi | | | |
| Sampler Hammer Donut | | Weight (lbs) 140 | Drop (in) 30 | | | | |

| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Depth Scale | Sample Data | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | |
|-----------------|------------|---------------|--|-------------|-------------|------|-------------|-----------------------|---|--|
| | | | | | Number | Type | Recov. (in) | Penetr. resist. BL/ft | | N-Value (Blows/ft) |
| | +85.0 | | | 0 | | | | | | |
| | +84.5 | | 6" Top Soil | | | | | | | |
| | | Class 7 | Brown m-f SAND trace silt, trace gravel, trace organics [FILL] | 1 | S-1 | SS | 18 | 6 | 11 | 3/1/17 -8:00AM mobilized rig to SLB-1 location -9:30AM began drilling borehole, took S-1 |
| | | | Brown m-f SAND, trace silt, trace roots, trace gravel, trace organics, trace weathered rock [FILL] | 2 | | | 6 | 5 | | |
| | | | Brown f SAND, trace silt, trace weathered rock [FILL] | 3 | S-2 | SS | 20 | 7 | 23 | |
| | | | | 4 | | | 16 | 8 | | |
| | | | | 5 | S-3 | SS | 11 | 7 | 17 | |
| | | | | 6 | | | 10 | 9 | | |
| | | Class 1d | Gray c-f SAND, trace silt, trace mica (dry) [FILL] | 7 | S-4 | SS | 5 | 11 | 29 | Spoon bent at 12ft, no drill advanced, assumed top of rock End of boring at 12ft |
| | | | | 8 | | | 18 | 8 | | |
| | | | | 9 | S-5 | SS | 8 | 12 | 26 | |
| | | | | 10 | | | 9 | 14 | | |
| | | | | 11 | S-6 | SS | 12 | 24 | 28 | |
| | | | | 12 | | | 100/6" | 14 | 38 | |
| | +75.0 | | Gray MICA SCHIST fragments (wet) [Class 1d] | 10 | | | | | | |
| | +73.0 | | | 11 | | | | | | |
| | | | | 12 | | | | | | |
| | | | | 13 | | | | | | |
| | | | | 14 | | | | | | |
| | | | | 15 | | | | | | |
| | | | | 16 | | | | | | |
| | | | | 17 | | | | | | |
| | | | | 18 | | | | | | |
| | | | | 19 | | | | | | |
| | | | | 20 | | | | | | |

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| | | | | | | | |
|---|--|---------------------|--|---|--|--|--|
| Project American Museum of Natural History | | | | Project No. 170132489 | | | |
| Location New York, New York | | | | Elevation and Datum Approx. 86 ± (NAVD 88) | | | |
| Drilling Company Aquifer Drilling and Testing | | | | Date Started 3/1/17 | | Date Finished 3/1/17 | |
| Drilling Equipment Ecco Diesel Track Mounted Rig | | | | Completion Depth 18 ft | | Rock Depth 18 ft | |
| Size and Type of Bit 3 7/8" Tricone Roller Bit | | | | Number of Samples Disturbed 7 | | Undisturbed NA | |
| Casing Diameter (in) 3" I.D. Steel Flush Joint | | | | Casing Depth (ft) 0 | | Core NA | |
| Casing Hammer Donut | | Weight (lbs) 140 | | Drop (in) 30 | | Water Level (ft.) First Completion 24 HR. | |
| Sampler 2" O.D. Standard Split Spoon, NQ Core Barrel | | | | Drilling Foreman Anatoliy Kholdilin | | | |
| Sampler Hammer Donut | | Weight (lbs) 140 | | Drop (in) 30 | | Field Engineer Sebastian Tinazzi | |

| MATERIAL SYMBOL | Elev. (ft) | Building Code | Sample Description | Depth Scale | Sample Data | | | | | Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.) | |
|-----------------|------------|---------------|---|-------------|-------------|------|-------------|-----------------------|--------------------|---|--|
| | | | | | Number | Type | Recov. (in) | Penetr. resist. BL/ft | N-Value (Blows/ft) | | |
| | +86.0 | | 12" Top Soil | 0 | | | | | | | |
| | +85.0 | Class 7 | Brown m-f SAND, trace silt, trace gravel, trace organics [FILL] | 1 | | | | | | | |
| | | | Brown m-f SAND, trace silt, trace roots, trace gravel [FILL] | 2 | S-1 | SS | 22 | 4 | 7 | 12 | |
| | | | Brown m-f SAND, trace silt, trace weathered rock, trace organics [FILL] | 3 | | | | 5 | 6 | | |
| | | | | 4 | S-2 | SS | 15 | 5 | 7 | 12 | |
| | | | | 5 | | | | 4 | 5 | | |
| | | | | 6 | S-3 | SS | 16 | 4 | 3 | 7 | |
| | +79.0 | Class 1D | Weathered c-f grained MICA SCHIST (dry) [Class 1d] | 7 | S-4 | SS | 5 | 11 | 100/5" | | Advanced drill to verify top of rock. Drill went through to 9ft. |
| | | | Weathered c-f grained MICA SCHIST (dry) [Class 1d] | 8 | | | | | | | |
| | | | Weathered c-f grained MICA SCHIST (dry) [Class 1d] | 9 | | | | 3 | 8 | | |
| | | | Weathered c-f grained MICA SCHIST (dry) [Class 1d] | 10 | S-5 | SS | 3 | 65 | 8 | 73 | |
| | | | Weathered c-f grained MICA SCHIST (dry) [Class 1d] | 11 | | | | 18 | 8 | | |
| | | | Weathered c-f grained MICA SCHIST (dry) [Class 1d] | 12 | S-6 | SS | 3 | 29 | 8 | 37 | |
| | | | Weathered c-f grained MICA SCHIST (dry) [Class 1d] | 13 | | | | 18 | | | |
| | | | | 14 | S-7 | SS | 7 | 41 | | 72 | |
| | | | | 15 | | | | 31 | | | Advanced drill to 18ft. -A lot of chattering between 16ft-18ft. |
| | | | | 16 | | | | 50/3" | | | |
| | +68.0 | | | 18 | CORE | | 0 | | | | Drill would not advanced. Top of rock assumed at 18ft End of boring at 18ft. |

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WELL CONSTRUCTION SUMMARY

Well No. LB-1(OW)

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------------------------|-------------------------|---|---|---|---------------------|------------------------------------|-------------------|-------|------|-----|-------|------|------|------|--|--|------------|--|--|-----------|--|--|-------|--|------|
| PROJECT American Museum of Natural History | | | PROJECT NO. 170132489 | | | | | | | | | | | | | | | | | | | | | | | |
| LOCATION Manhattan, NY | | | ELEVATION AND DATUM About el. 82 (NAVD88) | | | | | | | | | | | | | | | | | | | | | | | |
| DRILLING AGENCY Aquifer Drilling & Testing | | | DATE STARTED 2/15/2017 | | DATE FINISHED 2/17/2017 | | | | | | | | | | | | | | | | | | | | | |
| DRILLING EQUIPMENT Ecco Diesel Track Mounted Rig | | | DRILLER Anatoliy Kholidilin | | | | | | | | | | | | | | | | | | | | | | | |
| SIZE AND TYPE OF BIT 3-7/8" Tri-cone Roller Bit | | | INSPECTOR Sebastian Tinazzi | | | | | | | | | | | | | | | | | | | | | | | |
| METHOD OF INSTALLATION The boring was drilled by a 3 7/8" tricone roller bit to approximately 47 ft below grade. A 2-inch diameter PVC screen 10 ft long and a 37 ft long riser was installed. The annulus around the slotted PVC pipe was backfilled with silica sand to about 2 feet above the screen, followed by 2-foot-thick bentonite pellet seal and the remaining annulus was backfilled with soil cuttings. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| METHOD OF WELL DEVELOPMENT The observation well was flushed with water until the return water was clean. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE OF CASING PVC | | DIAMETER 2" | | TYPE OF BACKFILL MATERIAL Soil Cuttings | | | | | | | | | | | | | | | | | | | | | | |
| TYPE OF SCREEN PVC | | DIAMETER 2" | | TYPE OF SEAL MATERIAL Bentonite Chips | | | | | | | | | | | | | | | | | | | | | | |
| BOREHOLE DIAMETER 4" | | | TYPE OF FILTER MATERIAL Silica Sand | | | | | | | | | | | | | | | | | | | | | | | |
| TOP OF CASING | ELEVATION 82 | DEPTH (ft) 0 | <p style="text-align: center;">N.T.S</p> | | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">WELL DETAILS</td> <td style="text-align: center;">SUMMARY SOIL CLASSIFICATION</td> <td style="text-align: center;">DEPTH (FT)</td> </tr> <tr> <td style="text-align: center;">Cover</td> <td style="text-align: center;">FILL</td> <td style="text-align: center;">0.0</td> </tr> <tr> <td style="text-align: center;">Riser</td> <td style="text-align: center;">SAND</td> <td style="text-align: center;">13.0</td> </tr> <tr> <td style="text-align: center;">Seal</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">PVC Screen</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">Sand Pack</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">N.T.S</td> <td></td> <td style="text-align: center;">47.0</td> </tr> </table> | WELL DETAILS | SUMMARY SOIL CLASSIFICATION | DEPTH (FT) | Cover | FILL | 0.0 | Riser | SAND | 13.0 | Seal | | | PVC Screen | | | Sand Pack | | | N.T.S | | 47.0 |
| WELL DETAILS | SUMMARY SOIL CLASSIFICATION | DEPTH (FT) | | | | | | | | | | | | | | | | | | | | | | | | |
| Cover | FILL | 0.0 | | | | | | | | | | | | | | | | | | | | | | | | |
| Riser | SAND | 13.0 | | | | | | | | | | | | | | | | | | | | | | | | |
| Seal | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PVC Screen | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sand Pack | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N.T.S | | 47.0 | | | | | | | | | | | | | | | | | | | | | | | | |
| TOP OF SEAL | ELEVATION 88 | DEPTH (ft) 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| TOP OF FILTER | ELEVATION 90 | DEPTH (ft) 8 | | | | | | | | | | | | | | | | | | | | | | | | |
| TOP OF SCREEN | ELEVATION 92 | DEPTH (ft) 10 | | | | | | | | | | | | | | | | | | | | | | | | |
| BOTTOM OF BORING | ELEVATION 129 | DEPTH (ft) 47 | | | | | | | | | | | | | | | | | | | | | | | | |
| SCREEN LENGTH 10 ft | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SLOT SIZE .02 inches | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GROUNDWATER ELEVATIONS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ELEVATION | DATE | DEPTH TO WATER | | | | | | | | | | | | | | | | | | | | | | | | |
| 99.2 | 2/17/2017 | 17.20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ELEVATION | DATE | DEPTH TO WATER | | | | | | | | | | | | | | | | | | | | | | | | |
| 99.40 | 2/20/2017 | 17.40 | | | | | | | | | | | | | | | | | | | | | | | | |
| ELEVATION | DATE | DEPTH TO WATER | | | | | | | | | | | | | | | | | | | | | | | | |
| 99.50 | 2/21/2017 | 17.50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ELEVATION | DATE | DEPTH TO WATER | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ELEVATION | DATE | DEPTH TO WATER | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

WELL CONSTRUCTION SUMMARY

Well No. LB-4(OW)

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------------------------|--------------------------------|---|--|---|---------------------|------------------------------------|-------------------|-------|------|-----|-------|---|------|------|---|--|------------|------|--|-----------|---|------|
| PROJECT American Museum of Natural History | | | PROJECT NO. 170132489 | | | | | | | | | | | | | | | | | | | | |
| LOCATION Manhattan, NY | | | ELEVATION AND DATUM About el. 84 (NAVD88) | | | | | | | | | | | | | | | | | | | | |
| DRILLING AGENCY Aquifer Drilling & Testing | | | DATE STARTED 2/7/2017 | | DATE FINISHED 2/13/2017 | | | | | | | | | | | | | | | | | | |
| DRILLING EQUIPMENT Ecco Diesel Track Mounted Rig | | | DRILLER Anatoliy Kholidilin | | | | | | | | | | | | | | | | | | | | |
| SIZE AND TYPE OF BIT 3-7/8" Tri-cone Roller Bit | | | INSPECTOR Sebastian Tinazzi | | | | | | | | | | | | | | | | | | | | |
| METHOD OF INSTALLATION The boring was drilled by a 3 7/8" tricone roller bit to approximately 60 ft below grade. A 2-inch diameter PVC screen 10 ft long and a 49 ft long riser was installed. The annulus around the slotted PVC pipe was backfilled with silica sand to about 2 feet above the screen, followed by 2-foot-thick bentonite pellet seal and the remaining annulus was backfilled with soil cuttings. | | | | | | | | | | | | | | | | | | | | | | | |
| METHOD OF WELL DEVELOPMENT The observation well was flushed with water until the return water was clean. | | | | | | | | | | | | | | | | | | | | | | | |
| TYPE OF CASING PVC | | DIAMETER 2" | TYPE OF BACKFILL MATERIAL Soil Cuttings | | | | | | | | | | | | | | | | | | | | |
| TYPE OF SCREEN PVC | | DIAMETER 2" | TYPE OF SEAL MATERIAL Bentonite Chips | | | | | | | | | | | | | | | | | | | | |
| BOREHOLE DIAMETER 4" | | | TYPE OF FILTER MATERIAL Silica Sand | | | | | | | | | | | | | | | | | | | | |
| TOP OF CASING | ELEVATION 84 | DEPTH (ft) 0 | <p style="text-align: center;">N.T.S</p> | | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">WELL DETAILS</td> <td style="text-align: center;">SUMMARY SOIL CLASSIFICATION</td> <td style="text-align: center;">DEPTH (FT)</td> </tr> <tr> <td style="text-align: center;">Cover</td> <td style="text-align: center;">FILL</td> <td style="text-align: center;">0.0</td> </tr> <tr> <td style="text-align: center;">Riser</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">13.0</td> </tr> <tr> <td style="text-align: center;">Seal</td> <td style="text-align: center;">↑</td> <td></td> </tr> <tr> <td style="text-align: center;">PVC Screen</td> <td style="text-align: center;">SAND</td> <td></td> </tr> <tr> <td style="text-align: center;">Sand Pack</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">60.0</td> </tr> </table> | WELL DETAILS | SUMMARY SOIL CLASSIFICATION | DEPTH (FT) | Cover | FILL | 0.0 | Riser | ↓ | 13.0 | Seal | ↑ | | PVC Screen | SAND | | Sand Pack | ↓ | 60.0 |
| WELL DETAILS | SUMMARY SOIL CLASSIFICATION | DEPTH (FT) | | | | | | | | | | | | | | | | | | | | | |
| Cover | FILL | 0.0 | | | | | | | | | | | | | | | | | | | | | |
| Riser | ↓ | 13.0 | | | | | | | | | | | | | | | | | | | | | |
| Seal | ↑ | | | | | | | | | | | | | | | | | | | | | | |
| PVC Screen | SAND | | | | | | | | | | | | | | | | | | | | | | |
| Sand Pack | ↓ | 60.0 | | | | | | | | | | | | | | | | | | | | | |
| TOP OF SEAL | ELEVATION 90 | DEPTH (ft) 6 | | | | | | | | | | | | | | | | | | | | | |
| TOP OF FILTER | ELEVATION 92 | DEPTH (ft) 8 | | | | | | | | | | | | | | | | | | | | | |
| TOP OF SCREEN | ELEVATION 94 | DEPTH (ft) 10 | | | | | | | | | | | | | | | | | | | | | |
| BOTTOM OF BORING | ELEVATION 144 | DEPTH (ft) 60 | | | | | | | | | | | | | | | | | | | | | |
| SCREEN LENGTH 10 ft | | | | | | | | | | | | | | | | | | | | | | | |
| SLOT SIZE .02 inches | | | | | | | | | | | | | | | | | | | | | | | |
| GROUNDWATER ELEVATIONS | | | | | | | | | | | | | | | | | | | | | | | |
| ELEVATION 103.1 | DATE 2/13/2017 | DEPTH TO WATER 19.10 | | | | | | | | | | | | | | | | | | | | | |
| ELEVATION 103.80 | DATE 2/14/2017 | DEPTH TO WATER 19.80 | | | | | | | | | | | | | | | | | | | | | |
| ELEVATION 103.80 | DATE 2/15/2017 | DEPTH TO WATER 19.80 | | | | | | | | | | | | | | | | | | | | | |
| ELEVATION | DATE | DEPTH TO WATER | | | | | | | | | | | | | | | | | | | | | |
| ELEVATION | DATE | DEPTH TO WATER | | | | | | | | | | | | | | | | | | | | | |
| ELEVATION | DATE | DEPTH TO WATER | | | | | | | | | | | | | | | | | | | | | |

WELL CONSTRUCTION SUMMARY

Well No. LB-7(OW)

| | | | | | | |
|--|--------------------------|-------------------------------|---|---|--|---|
| PROJECT American Museum of Natural History | | | PROJECT NO. 170132489 | | | |
| LOCATION Manhattan, NY | | | ELEVATION AND DATUM About el. 67 (NAVD88) | | | |
| DRILLING AGENCY Aquifer Drilling & Testing | | | DATE STARTED 2/28/2017 | | DATE FINISHED 2/28/2017 | |
| DRILLING EQUIPMENT Ecco Diesel Track Mounted Rig | | | DRILLER Anatoliy Kholidilin | | | |
| SIZE AND TYPE OF BIT 3-7/8" Tri-cone Roller Bit | | | INSPECTOR Sebastian Tinazzi | | | |
| METHOD OF INSTALLATION The boring was drilled by a 3 7/8" tricone roller bit to approximately 21 ft below grade. A 2-inch diameter PVC screen 10 ft long and a 10 ft long riser was installed. The annulus around the slotted PVC pipe was backfilled with silica sand to about 2 feet above the screen, followed by 2-foot-thick bentonite pellet seal and the remaining annulus was backfilled with soil cuttings. | | | | | | |
| METHOD OF WELL DEVELOPMENT The observation well was flushed with water until the return water was clean. | | | | | | |
| TYPE OF CASING PVC | | DIAMETER 2" | | TYPE OF BACKFILL MATERIAL Soil Cuttings | | |
| TYPE OF SCREEN PVC | | DIAMETER 2" | | TYPE OF SEAL MATERIAL Bentonite Chips | | |
| BOREHOLE DIAMETER 4" | | | TYPE OF FILTER MATERIAL Silica Sand | | | |
| TOP OF CASING | ELEVATION 67 | DEPTH (ft) 0 | <p style="text-align: center;">N.T.S</p> | | SUMMARY SOIL CLASSIFICATION FILL ROCK | DEPTH (FT) 0.0 3.0 21.0 |
| TOP OF SEAL | ELEVATION 73 | DEPTH (ft) 6 | | | | |
| TOP OF FILTER | ELEVATION 75 | DEPTH (ft) 8 | | | | |
| TOP OF SCREEN | ELEVATION 77 | DEPTH (ft) 10 | | | | |
| BOTTOM OF BORING | ELEVATION 88 | DEPTH (ft) 21 | | | | |
| SCREEN LENGTH 10 ft | | | | | | |
| SLOT SIZE .02 inches | | | | | | |
| GROUNDWATER ELEVATIONS | | | | | | |
| ELEVATION 70.5 | DATE 2/28/2017 | DEPTH TO WATER 3.50 | | | | |
| ELEVATION 71.50 | DATE 3/1/2017 | DEPTH TO WATER 4.50 | | | | |
| ELEVATION 71.50 | DATE 3/3/2017 | DEPTH TO WATER 4.50 | | | | |
| ELEVATION | DATE | DEPTH TO WATER | | | | |
| ELEVATION | DATE | DEPTH TO WATER | | | | |
| ELEVATION | DATE | DEPTH TO WATER | | | | |

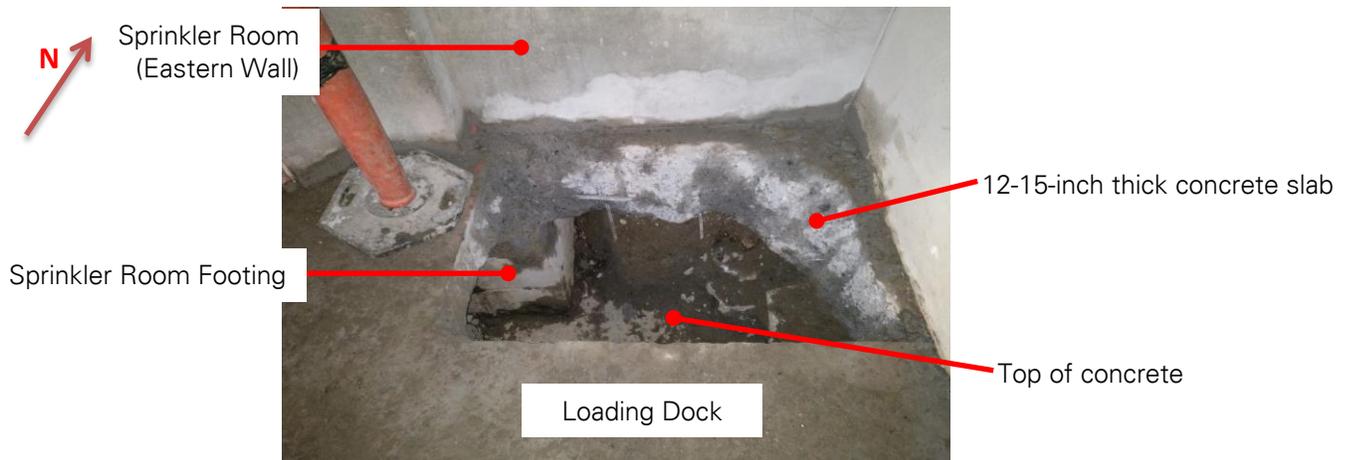
LANGAN Engineering and Environmental Services, PC
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York

APPENDIX B
TEST PIT DESCRIPTIONS AND SKETCHES

Test Pit TP-1

Test Pit TP-1 was excavated in the loading dock adjacent to the eastern wall of the sprinkler room and south of the cellar entrance to Building 17. The plan dimensions of the test pit were about 4 feet (north-south) by 3 feet (east-west). TP-1 was excavated to about 3 feet deep.

The loading dock slab, at about el. 65.5 NAVD88, consisted of a 12- to 15-inch-thick reinforced concrete slab. The slab was underlain by fill consisting of brown medium to fine sand, with varying amounts of silt, gravel, and cobbles. An about 2.5-foot by 2.5-foot concrete footing supporting the sprinkler room column is bearing about 3 feet deep. An about 18-inch-thick concrete slab was encountered throughout the bottom of the test pit. The concrete is speculated to be part of a utility trench. The project team decided to end the test pit at the top of the concrete.



Test Pit TP-1A

Test Pit TP-1A was excavated from the loading dock area along the southern wall of Building 17, and adjacent to elevator pit and column for the Building 16 overhang extension. The plan dimensions of the test pit were about 5 feet (north-south) by 4 feet (east-west). TP-1A was excavated to a depth of about 10.5 feet deep.

The loading dock slab, at about el. 66 NAVD88, consisted of a 12-inch-thick reinforced concrete slab. The slab was underlain by fill consisting of brown medium to fine sand, with varying amounts of silt, gravel, and cobbles. Water was encountered about 8 feet below the top of slab.

The bottom of the southern wall of Building 17 was about 7-feet deep, underlain by brown medium to fine sand, with varying amounts of silt, gravel, and cobbles. A footing at the southern wall of Building 17 was encountered at the northwest corner of the test pit. The footing extends to the south by 2.5 to 3-feet from the face of the southern wall. Langan observed the footing bearing on Building Code Class 1c bedrock about 10.5 feet below the loading dock top of slab. The concrete footing under the column of the Building 16 overhang extension is about 2-feet wide in the north-south direction. The footing depth matches the Building 17 footing.



Photo No. 3: TP-1A, General view of the test pit (View: North)



Photo No. 4: TP-1A, View of the Building 16 overhang column footing (View: Southwest)

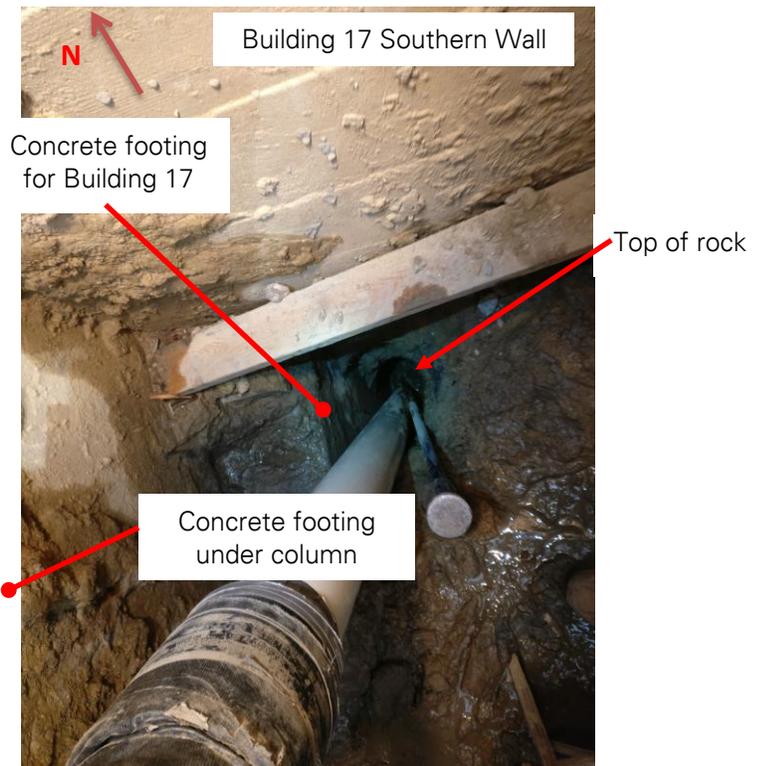


Photo No. 5: TP-1A, View of Building 17 Southern Wall Foundation (View: Northeast)

Test Pit TP-2

Test Pit TP-2 was excavated adjacent to a column in the cellar level of Building 16. The plan dimension of the test pit was about 3.5-feet by 3.5-feet. TP-2 was excavated to about 6 feet deep.

The cellar slab, at about el. 64 NAVD88, consisted of an about 12-inch-thick reinforced concrete slab. The slab was underlain by fill consisting of brown medium to fine sand, with varying amounts of silt, gravel, and cobbles. Water was encountered about 4-feet below the top of slab.

The test pit exposed the edge of a concrete footing supporting the existing column. The footing extends 1-foot-6-inches (north-south direction) and 3-feet (east-west direction) from the center line of the column. Langan observed the footing bearing on Building Code Class 1c bedrock about 4 feet below the cellar top of slab.

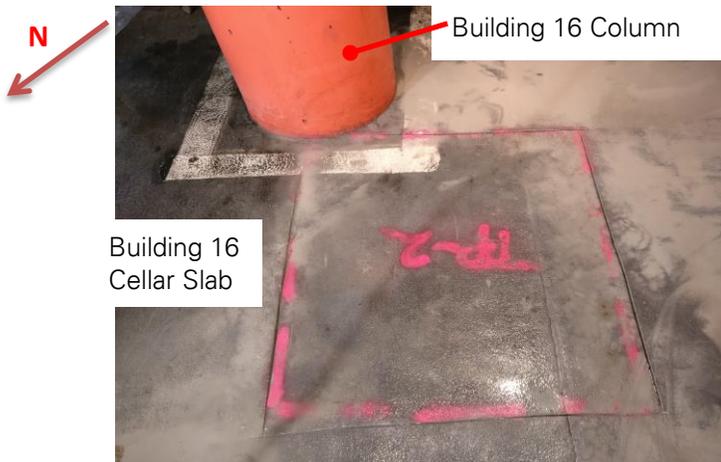


Photo No. 6: TP-2, General view of the test pit
(View: Southeast)

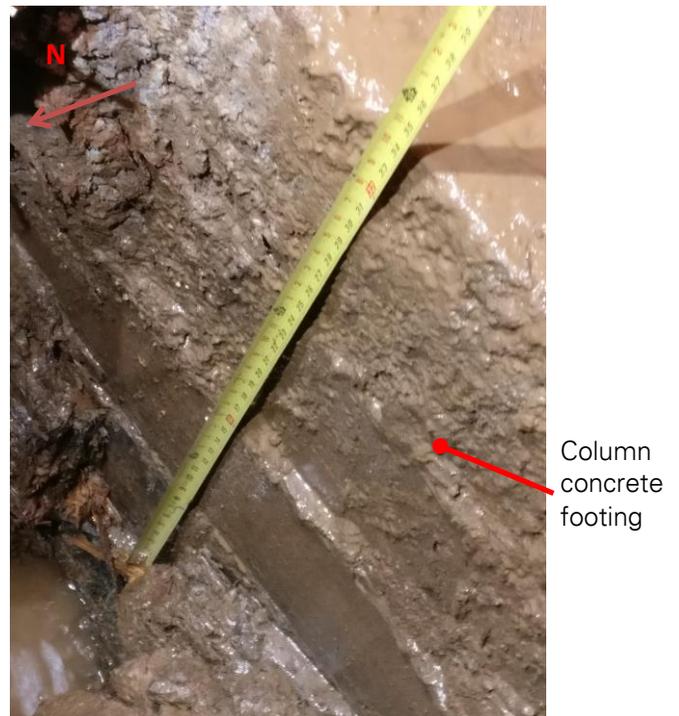


Photo No. 8: TP-2, General View of test pit
(View: East)



Photo No. 7: TP-2, Close-Up View of test pit
(View: Southeast)

Test Pit TP-3

Test Pit TP-3 was excavated from the cellar level of Building 15, adjacent to an interior column and dynamo foundation. The plan dimensions of the test pit were about 3 feet (north-south) by 5 feet (east-west). TP-3 was excavated to about 11 feet deep.

The cellar slab, at about el. 68 NAVD88, consisted of a 4 inch thick unreinforced concrete slab. The slab was underlain by an about 4-inch-thick layer of bricks, which were underlain by fill consisting of brown medium to fine sand, with varying amounts of silt, gravel, and decomposed rock fragments. Water was encountered about 10-feet below the top of slab.

The interior column was supported by a brick footing that extends about 1-foot (north-south) from the edge of the column. Langan observed the footing bearing on Building Code Class 1d bedrock (decomposed rock) about 10 feet below the cellar top of slab. The test pit also exposed the bottom of the dynamo mat foundation bearing in the fill about 4-feet below the cellar top of slab.

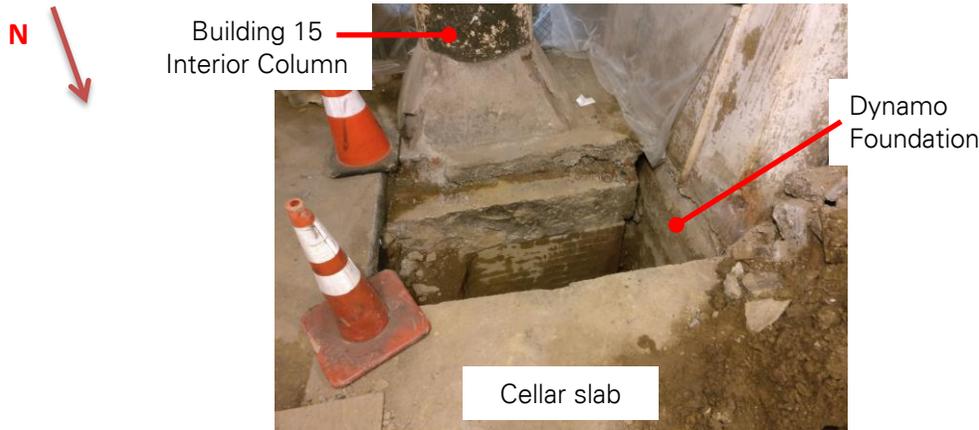


Photo No. 9: TP-3, General view of the test pit (View: South)

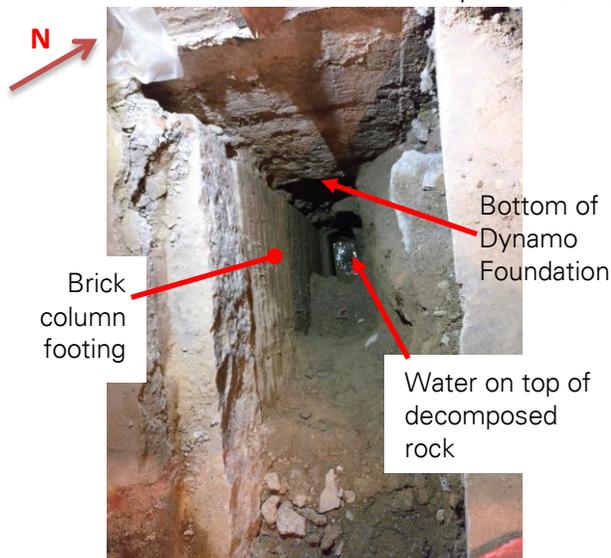


Photo No. 10: TP-3, View of foundations (View: Northwest)

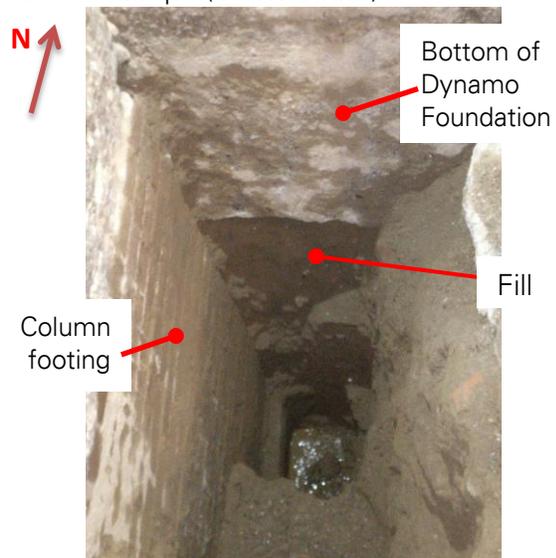


Photo No. 11: TP-3, Close-Up View of foundations (View: North)

Test Pit TP-4

Test Pit TP-4 was excavated from the cellar level adjacent to the eastern wall of Building 7A (that separates Buildings 7 and 7A) and a perpendicular interior wall. The plan dimensions of the test pit were about 3-feet (north-south) by 4.5-feet (east-west). TP-4 was excavated to about 8 feet deep.

The cellar slab, at about el. 67 NAVD88, consisted of a 4-inch thick unreinforced concrete slab. The slab was underlain by fill consisting of brown medium to fine sand, with varying amounts of silt, gravel, cobbles, and decomposed rock fragments. Water was encountered about 8 feet below the top of slab.

The test pit exposed a concrete strip footing supporting the eastern wall of Building 7A. The footing extends flush with the wall to about 1.5-feet-deep. The footing extends (east-west) about 4-inches from the face of the wall from about 1.5- to 5-feet-deep. The footing extends by an additional about 6 inches to about 5.5-feet-deep. Langan observed the footing bearing in the fill about 5.5-feet below the cellar top of slab.

The test pit also exposed the edge of a stone footing supporting the interior wall. The footing extends about 4-inches (north-south) from the face of the wall. Langan observed the footing bearing on Building Code Class 1c bedrock about 8 feet below the cellar top of slab.



Photo No. 12: TP-4, General view of the test pit (View: East)



Photo No. 13: TP-4, View of foundation footings (View: East)

Test Pit TP-5

Test Pit TP-5 was excavated from the loading dock, adjacent to the western exterior column at the interface of Buildings 15 and 15A. The plan dimensions of the test pit were about 4.5-feet (north-south) by 5.5-feet (east-west). TP-5 was excavated to about 12 feet deep.

The loading dock slab, at about el. 69 NAVD88, consisted of a 12-inch-thick reinforced concrete slab. The slab was underlain by fill consisting of brown medium to fine sand, with varying amounts of silt, gravel, cobbles, and decomposed rock fragments. Water was encountered about 7.5 feet below the top of slab.

The test pit exposed a stone footing supporting the existing column. The footing extends about 10-inches (north-south) and about 1-foot (east-west) from the face of the column. No bonding material was observed between the stones. Langan observed the footing bearing on Building Code Class 1d bedrock (decomposed rock) about 12 feet below the loading dock top of slab. A stone strip-footing supporting the Building 15 western wall protrudes about 9-inches from the face of the wall. Langan observed the footing bearing in the fill about 2-feet below the cellar top of slab.

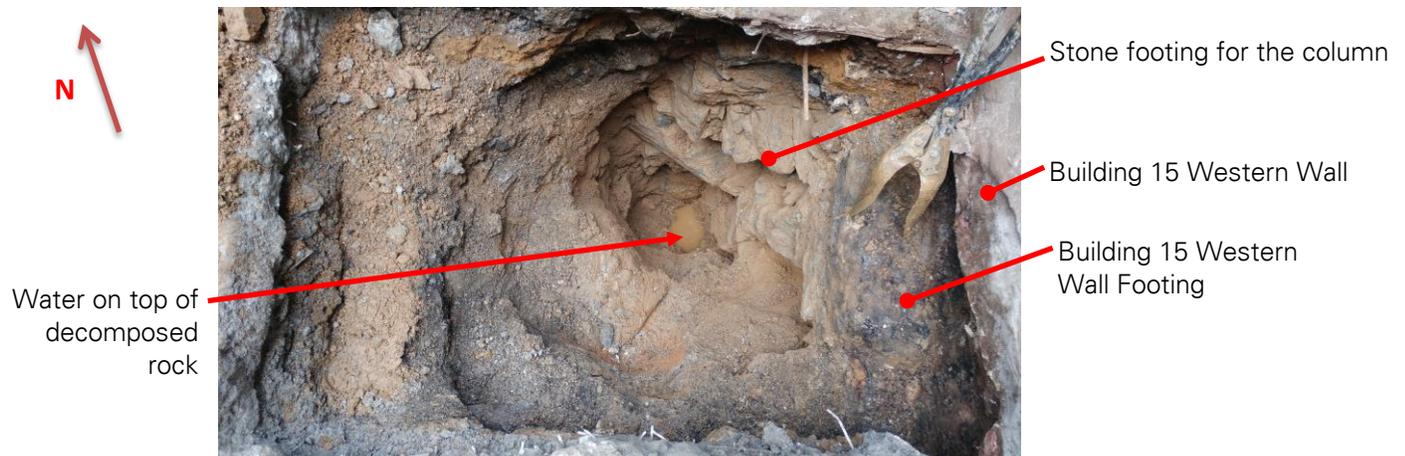


Photo No. 14: TP-5, General view of the test pit (View: North)



Photo No. 15: TP-5, Close-Up View of foundation footings (View: East)

Test Pit TP-6

Test Pit TP-6 was excavated from the loading dock adjacent to the southwest corner of Building 7. The plan dimensions of the test pit were about 4-feet (north-south) by 3.5-feet (east-west). TP-6 was excavated to about 7 feet deep.

The loading dock slab, at about el. 67 NAVD88, is an about 6-inch-thick reinforced concrete slab. The slab was underlain by about 12-inches of gravel, underlain by fill consisting of brown medium to fine sand, with varying amounts of silt and gravel.

The concrete footing supporting the corner of the south and west walls of Building extends about 10-inches (north-south) and about 2.5-feet (east-west) from the face of the corner. Langan observed the footing bearing on Building Code Class 1c bedrock about 4 feet below the loading dock top of slab. The western wall is supported by a strip footing, flush with the face of the wall, and bearing on Building Code Class 1c bedrock up to about 7 feet below the loading dock top of slab.



Photo No. 16: TP-6, General view of the test pit (View: East)



Photo No. 17: TP-6, View of foundations (View: South)

Test Pit TP-7

Test Pit TP-7 was excavated from the loading dock, adjacent to the western perimeter wall of Building 1. The plan dimensions of the test pit were about 4-feet by 4-feet. TP-7 was excavated to about 3 feet deep.

The loading dock slab, at about el. 67 NAVD88, is an about 7-inch-thick reinforced concrete slab. The slab was underlain by about a 5-inch-thick gravel layer, which was underlain by a layer decomposed rock.

The test pit exposed a concrete strip footing supporting the western perimeter wall of Building 1. The footing extends to the northwest by about 2.5-feet from the face of the wall. Langan observed the footing bearing on Building Code Class 1c bedrock about 1.5 feet below the loading dock top of slab.



Photo No. 18: TP-7, General view of the test pit (View: East)



Photo No. 19: TP-7, View of foundations (View: East)

Test Pit TP-8

Test Pit TP-8 was excavated from the loading dock, adjacent to a column supporting Building 11B. The plan dimensions of the test pit were about 3-feet by 3-feet. TP-8 was excavated to about 6.5-feet deep.

The loading dock slab, at about el. 67 NAVD88, is a 12-inch-thick unreinforced concrete slab. The slab was underlain by fill consisting of brown medium to fine sand, with varying amounts of silt, gravel, and decomposed rock fragments. Water was encountered about 5 feet below the loading dock top of slab.

The test pit exposed a concrete footing that extends about 4-inches (north-south) from the face of the column. Langan observed the footing bearing on Building Code Class 1c bedrock about 6.5 feet below the loading dock top of slab.



Photo No. 20: TP-8, General view of the test pit (View: North)



Photo No. 21: TP-8, View of foundation (View: Northeast)

Test Pit TP-9

Test Pit TP-9 was excavated from the loading dock under Building 8, adjacent to the north wall of Building 8. The plan dimensions of the test pit were about 3.5-feet by 3.5-feet. TP-9 was excavated to about 4 feet deep.

The loading dock slab, at about el. 66 NAVD88, is an about 10-inch-thick reinforced concrete slab. The slab was underlain by fill consisting of gray medium to fine sand, with varying amounts of silt, gravel, and cobbles. Water was encountered about 2.5 feet below the loading dock top of slab.

The test pit exposed a brick wall approximately flush with the northern wall of Building 8, and a 6-inch-diameter iron pipe which extends (north-south) from the face of the wall, about 2 feet below the loading dock. The pipe obstructed excavation of the test pit causing the bottom of the wall to not be exposed. Langan observed Building Code Class 1c bedrock about 4 feet below the loading dock top of slab, and the northern wall is anticipated to bear on the rock.



Photo No. 22: TP-9, General view of the test pit (View: North)

Test Pit TP-10

Test Pit TP-10 was excavated from the loading dock area, adjacent to the northeast corner of the Building 8 stair tower addition and adjacent to a column for the Building 11B overhang. The plan dimensions of the test pit were about 3.5-feet by 3.5-feet. TP-10 was excavated to about 4.5-feet deep.

The loading dock slab, at about el. 67 NAVD88, is about 4- to 6-inch-thick reinforced concrete. The slab is underlain by concrete (possibly from the Building 11B Column footing) and decomposed rock. Water was encountered about 4 feet below the loading dock top of slab.

The test pit exposed a concrete strip-footing supporting the eastern wall of the Building 8 stair tower. Langan observed the footing bearing on Building Code Class 1d rock (decomposed rock) about 4 feet below the loading dock top of slab.

The test pit also exposed a concrete footing supporting the column. The footing extends about 6-inches (north-south) from the face of the column. Langan observed the footing bearing on Building Code Class 1c bedrock about 4.5 feet below the loading dock top of slab.



Photo No. 23: TP-10, View of the foundations (View: West)



Photo No. 24: TP-10, General view of the test pit (View: West)

Column for the Building 11B overhang

Footing for the Building 11B overhang column

Column footing for the Building 11B overhang column

Eastern wall of the Building 8 stair tower

Strip footing

Bedrock

Test Pit TP-11

Test Pit TP-11 was excavated from the loading dock, adjacent to the northern perimeter wall of Building 11. The plan dimensions of the test pit were about 4-feet (north-south) by 3.5-feet (east-west). TP-11 was excavated to about 3.5-feet deep.

The loading dock slab, at about el. 67 NAVD88, is an about 8-inch-thick reinforced concrete slab. The slab was underlain by an about 4-inch-thick gravel layer, underlain by fill consisting of brown medium to fine sand, with varying amounts of brick, concrete, gravel, and decomposed rock fragments.

The test pit exposed a concrete strip footing supporting the northern wall of Building 11. The footing is flush with the face of the wall to about 2-feet below top of loading dock slab. The footing then extends to north by about 6-inches from the face of the wall from about 2- to 3-feet below top of slab. The footing steps an additional 8-inches from the face of the wall to the base of the footing. Langan observed the footing bearing on Building Code Class 1c bedrock about 3.5 feet below the loading dock top of slab.



Photo No. 25: TP-11, General view of the test pit (View: South)

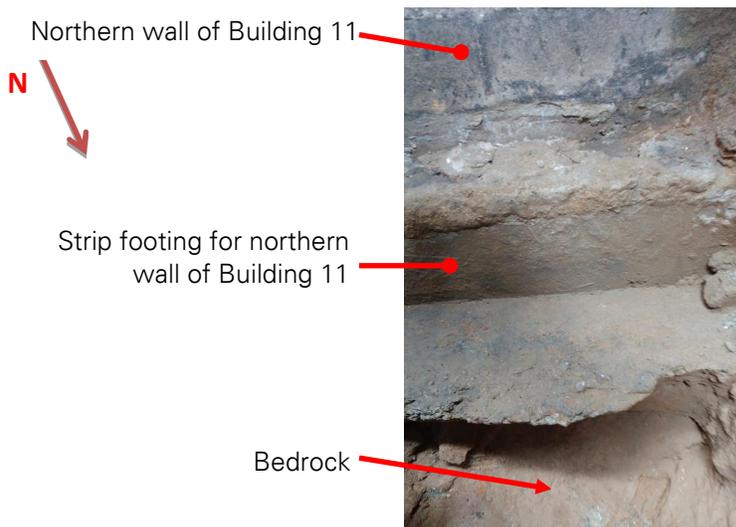


Photo No. 26: TP-11, View of the foundations (View: South)

Test Pit TP-12

Test Pit TP-12 was excavated from the base of the vehicular ramp, adjacent to the stone retaining wall that separates the park from the ramp. The plan dimensions of the test pit were about 3-feet by 3-feet. TP-12 was excavated to about 2.5-feet deep.

The vehicular ramp, at about el. 68.5 NAVD88, consist of 6-inch-thick cobble stones. The cobble stones were underlain by an 8-inch-thick concrete slab. Water was encountered about 1.5 feet below the top of the vehicular ramp.

The test pit exposed the stone strip-footing of the existing retaining wall. The footing extends about 13-inches (north-south) from the face of the wall. Langan observed the footing bearing on Building Code Class 1c bedrock about 1.5 feet below the top of the vehicular ramp.

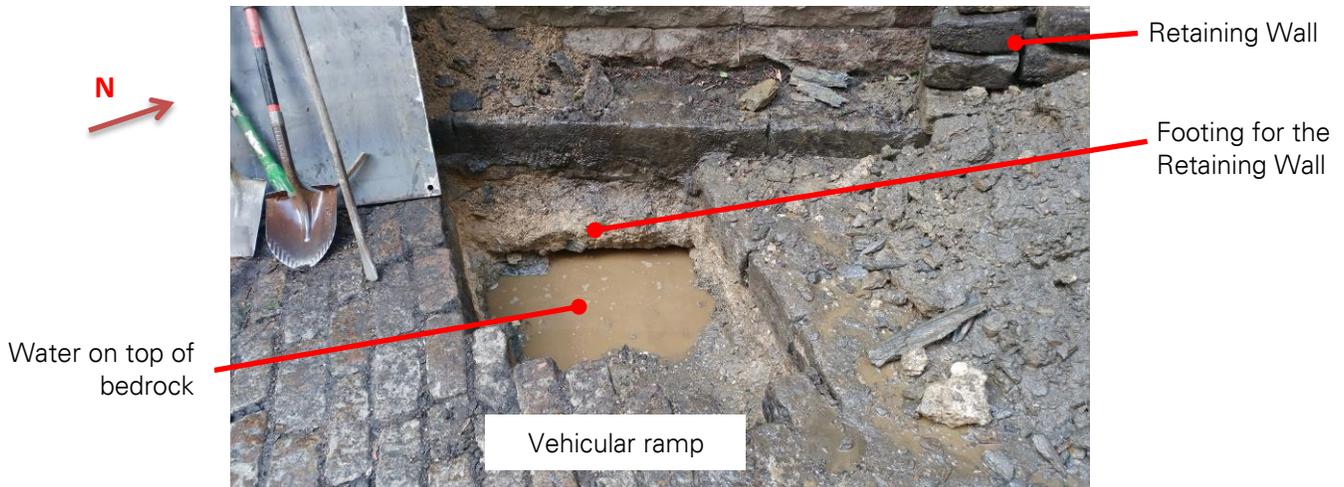


Photo No. 27: TP-12, General view of the test pit (View: West)

Test Pit TP-13

Test Pit TP-13 was excavated from the vehicular ramp, adjacent to the base of the landscaping retaining wall. The plan dimensions of the test pit were about 2-feet by 2-feet. TP-13 was excavated about 2 feet deep.

The vehicular ramp, at about el. 70.5 NAVD88, consisted of about 6-inch-thick cobble stones underlain by an about 6-inch-thick unreinforced concrete slab. The concrete was underlain by fill consisting of brown medium to fine sand, varying amounts of roots, gravel, and cobbles.

The test pit exposed the concrete strip-footing supporting the existing landscaping retaining wall. Langan observed the footing bearing on Building Code Class 1c bedrock about 2 feet below the top of the vehicular ramp.

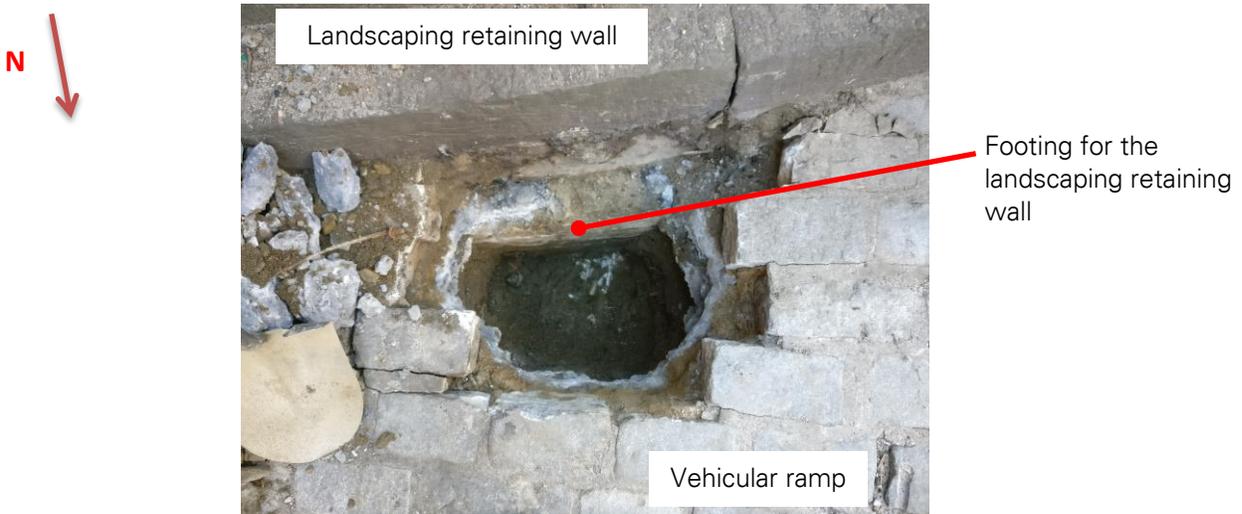


Photo No. 28: TP-13, General view of the test pit (View: South)



Photo No. 29: TP-13, View of foundation footing (View: South)

Test Pit TP-14

Test Pit TP-14 was excavated from the vehicular ramp, adjacent to the landscaping retaining wall. The plan dimensions of the test pit were about 3-feet by 3-feet. TP-14 was excavated to about 1.5-feet deep.

The vehicular ramp, at about el. 74.5 NAVD88, consisted of about 6-inch-thick cobble stones underlain by an about 6-inch-thick unreinforced concrete slab.

The test pit exposed the concrete strip-footing supporting the landscaping retaining wall. The footing extends about 9-inches (east-west) from the face of the retaining wall. Langan observed the footing bearing on Building Code Class 1c bedrock about 1-foot below the top of the vehicular ramp.



Photo No. 30: TP-14, General view of the test pit (View: East)



Photo No. 31: TP-14, View of the foundations (View: East)

Test Pit LTP-1

Test Pit LTP-1 was excavated in the park, about 5 feet north of Boring LB-3. The plan dimensions of the test pit were about 3-feet by 3-feet. LTP-1 was excavated to about 3-feet below park grade.

At existing grade, about el. 84 NAVD88, there was an about 6- to 12-inch-thick top soil layer underlain by fill layer consisting of brown medium to fine sand, varying amounts of silt, brick, gravel, cobbles, and decomposed rock fragments. The fill extended to the bottom of the test pit.



Photo No. 32: LTP-1, General view of the test pit (View: North)

Test Pit LTP-2

Test Pit LTP-1 was excavated in the park, in the enclosed triangular area west of the museum entrance. The plan dimensions of the test pit were about 3-feet by 3-feet. LTP-2 was excavated to about 3-feet below park grade.

At existing grade, about el. 83.5 NAVD88, there was an about 8- to 12-inch thick top soil layer, underlain by fill consisting of brown medium to fine sand, varying amounts of silt, brick, gravel, cobbles, and decomposed rock fragments. The fill extended to the bottom of the test pit.



Photo No. 33: LTP-2, View of the test pit (View: Northeast)

Test Pit LTP-3

Test Pit LTP-3 was excavated in the park, about 40 feet east of the property line fence. The plan dimensions of the test pit were about 3-feet by 3-feet. LTP-3 was excavated to about 3-feet deep.

At existing grade, about el. 84 NAVD88, there was an about 9-inch-thick top soil layer, underlain by fill consisting of brown medium to fine sand, varying amounts of silt, brick, gravel, cobbles, and decomposed rock fragments. The fill extended to the bottom of the test pit.



Photo No. 34: LTP-3, General view of the test pit (View: South)

Test Pit LTP-4

Test Pit LTP-4 was excavated in the park, about 20 feet west of Building 17. The plan dimension of the test pit was about 3-feet by 3-feet. LTP-4 was excavated to about 3-feet deep.

At existing grade, about el. 80.5 NAVD88, there was a 12-inch-thick top soil layer, underlain by fill consisting of brown medium to fine sand, varying amounts of silt, brick, gravel, cobbles, and decomposed rock fragments. The fill extended to the bottom of the test pit.

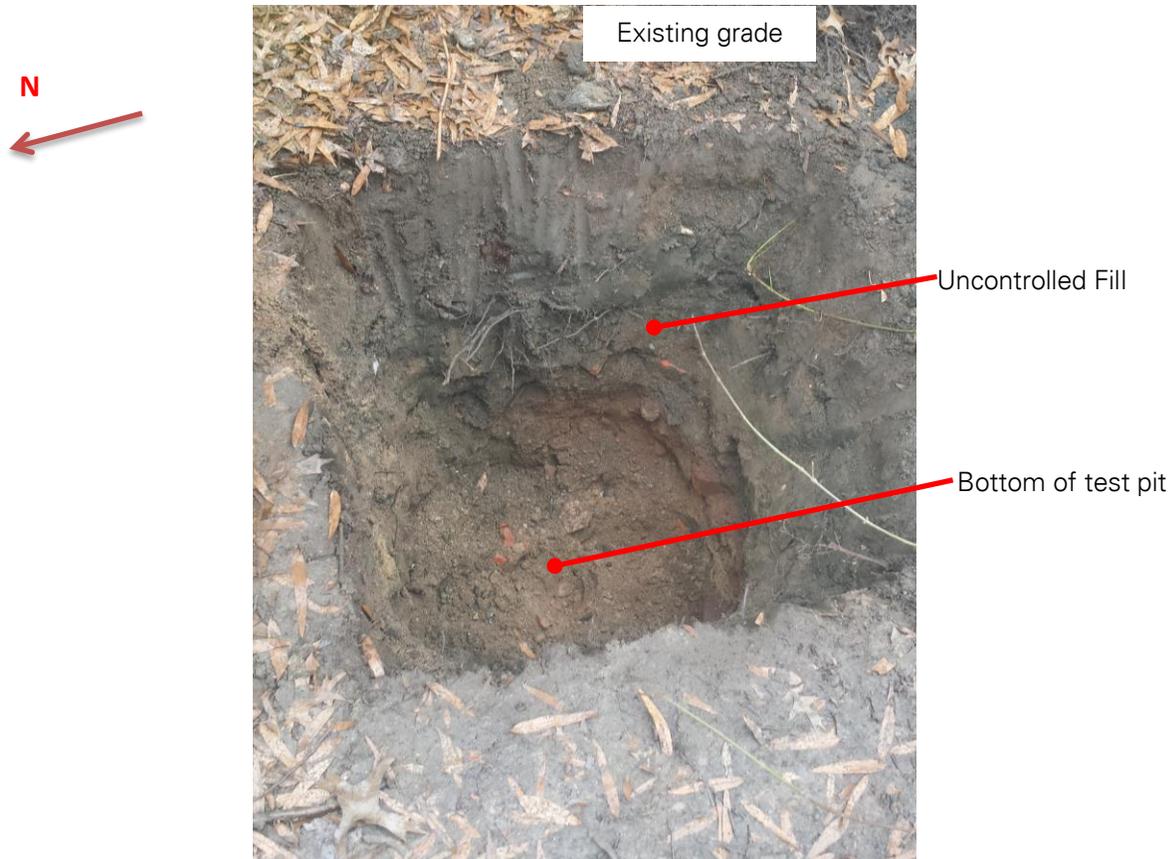


Photo No. 35: LTP-4, General view of the test pit (View: Southeast)

Test Pit LTP-5

Test Pit LTP-5 was excavated in the park, adjacent to a stone pillar at the gate entrance to the park from Columbus Avenue. The plan dimensions of the test pit were about 3-feet by 3-feet. LTP-5 was excavated to about 3-feet deep.

At existing grade, about el. 85.5 NAVD88, there was a 9-inch-thick top soil layer, underlain by fill consisting of brown medium to fine sand, with varying amounts of silt, gravel, and decomposed rock fragments.

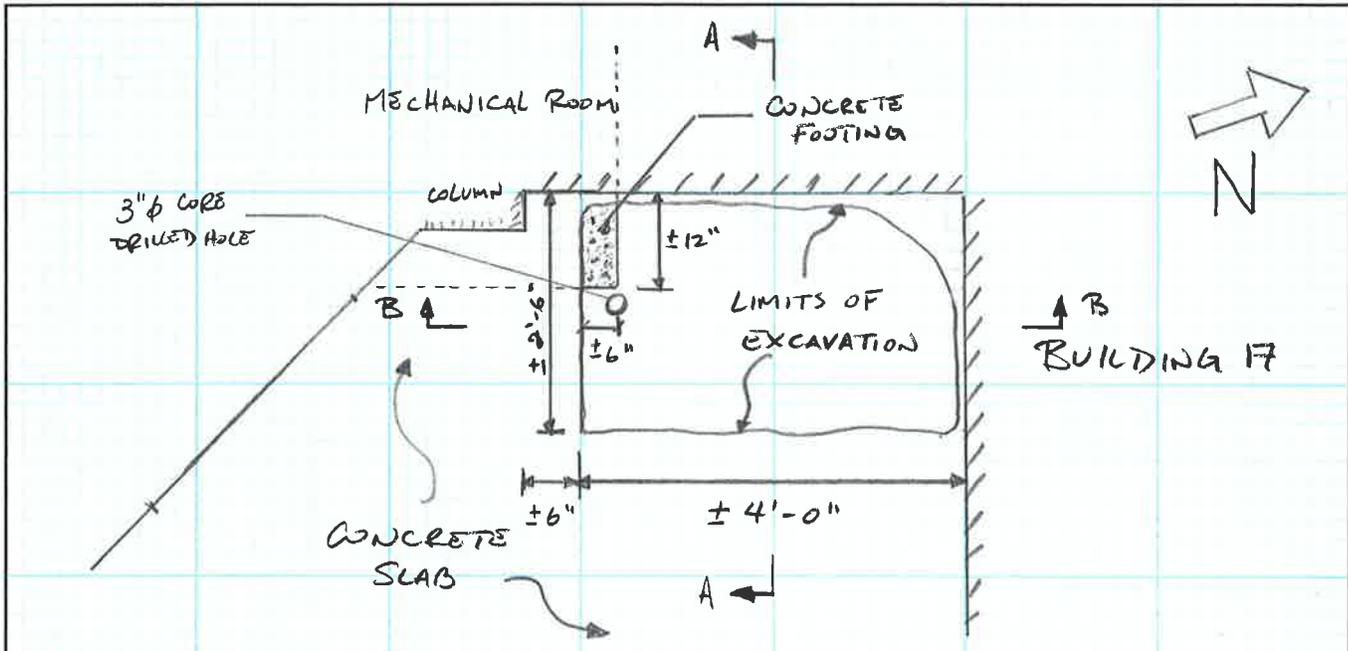
The test pit exposed a concrete pedestal supporting the stone pillar. The pedestal extends by about 1.5-feet (north-south) from the face of the pillar. A stone footing supports the concrete pedestal about 2 feet below grade. Langan observed the footing bearing in the fill about 3-feet below the park grade.



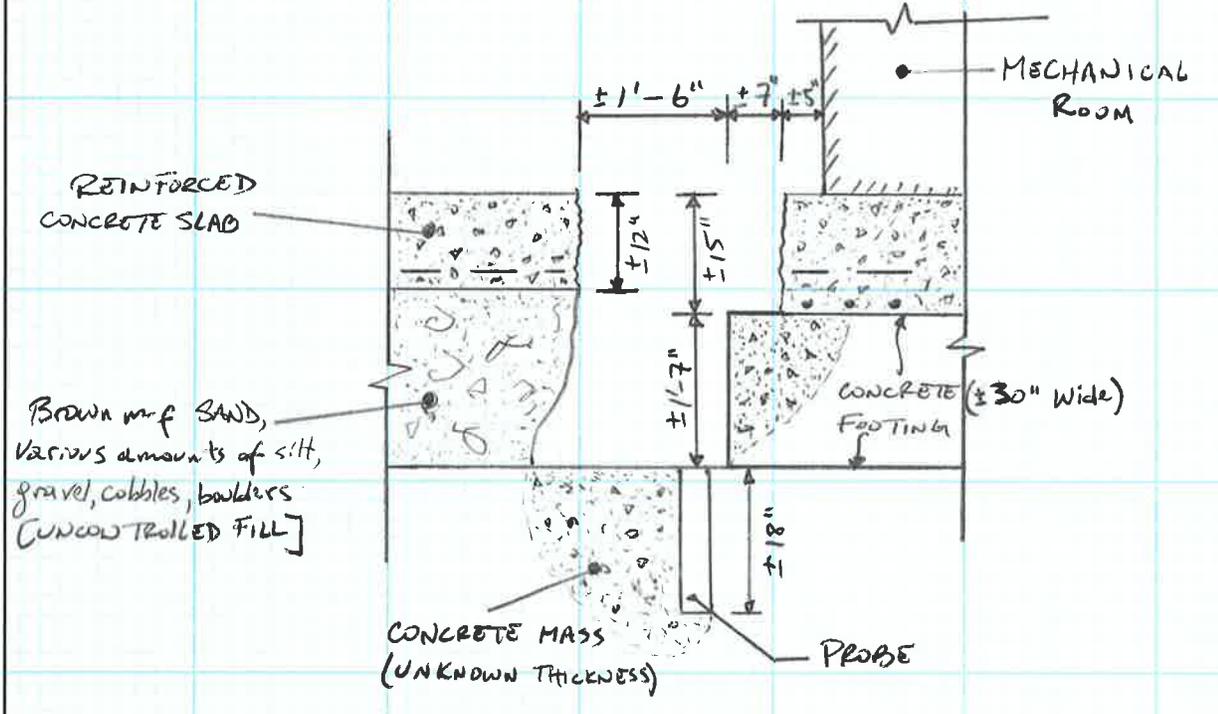
Photo No. 36: LTP-5, General view of the test pit (View: North)



Photo No. 37: LTP-5, View of the fence foundation (View: West)

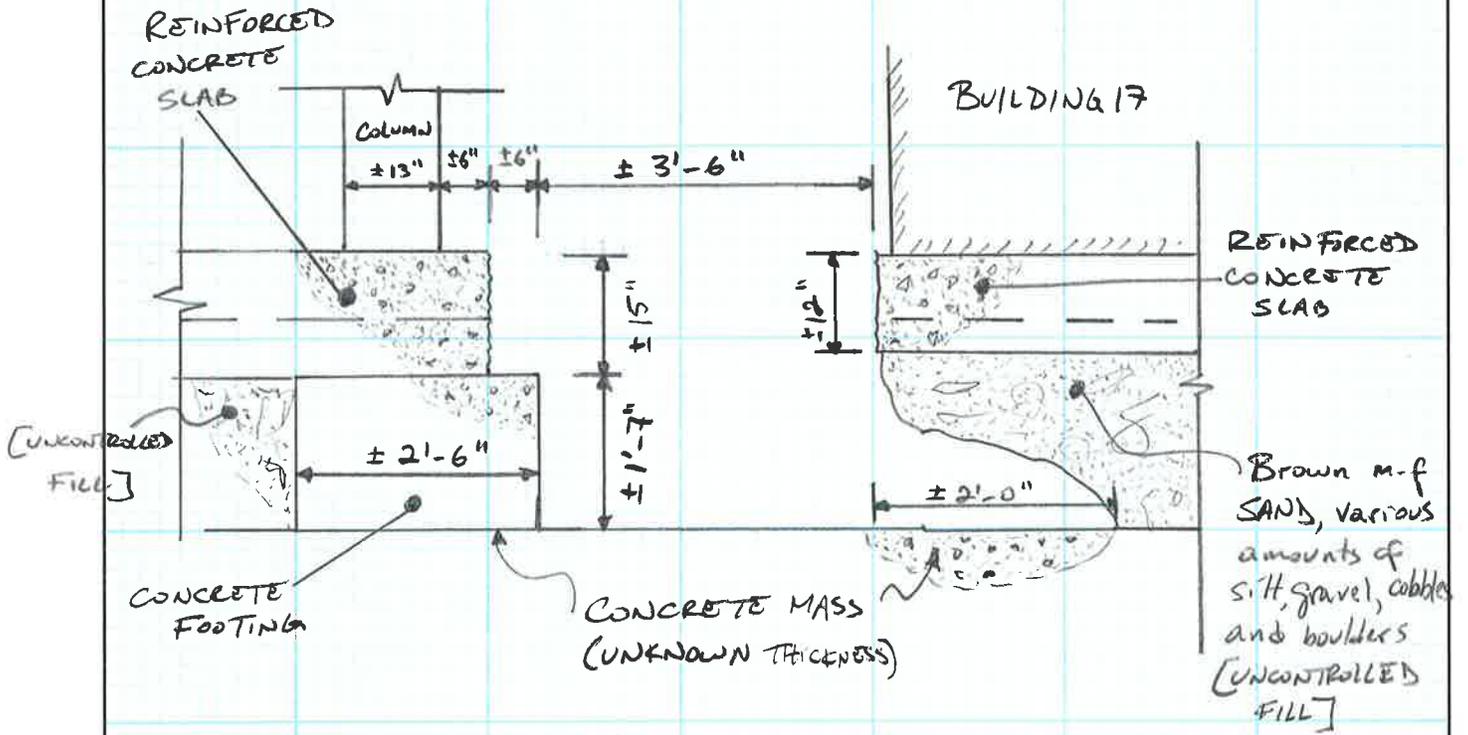


PLAN VIEW
SCALE: 1" = 2'-0"



SECTION A-A
SCALE: 1" = 2'-0"

| | | |
|--|----------------------------------|---------------------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY TEST PIT, TP-1 | BY SAT DATE 3/15/17 CKD. DATE | PROJ. NO. 170132489 SHEET OF |
|--|----------------------------------|---------------------------------|

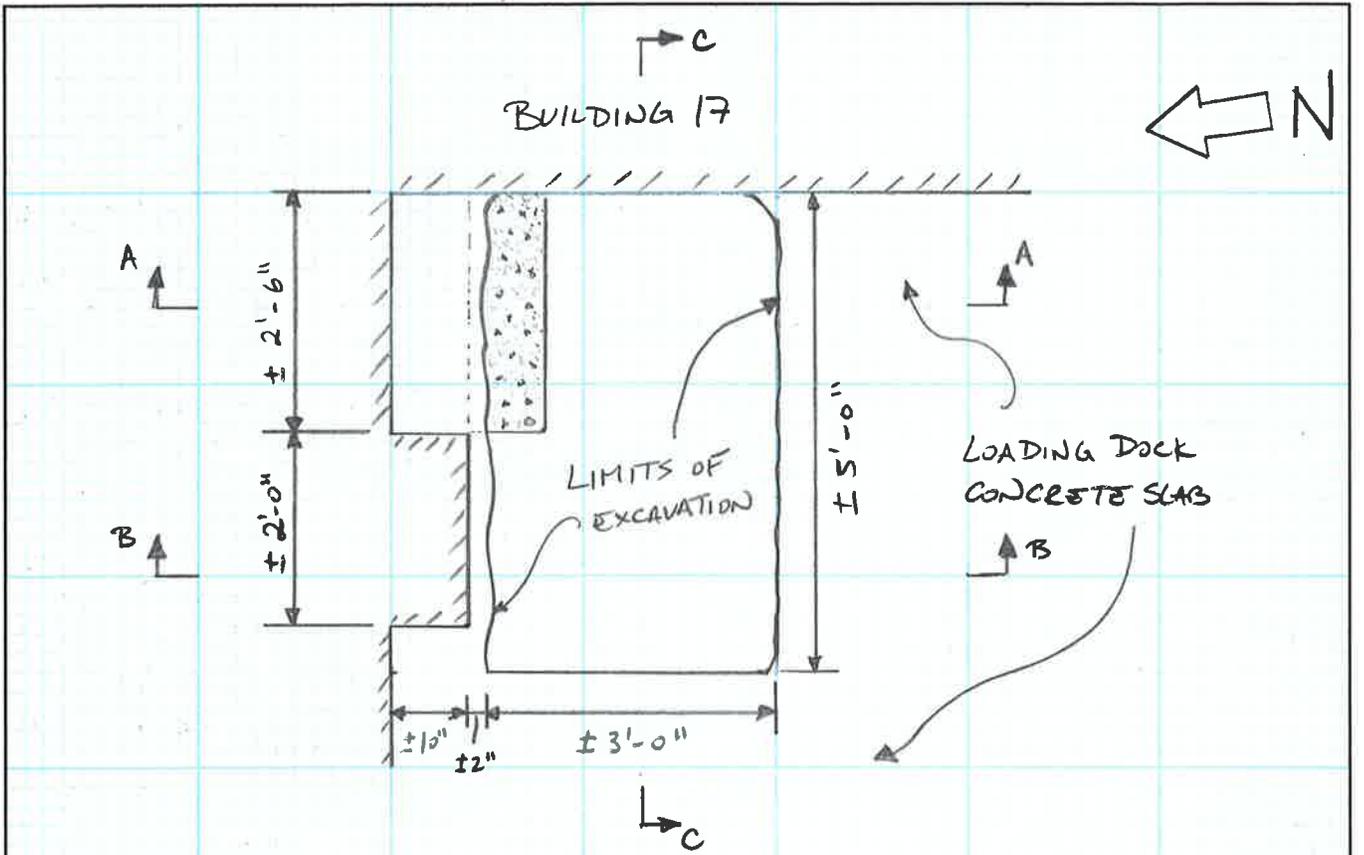


SECTION B-B
SCALE: 1" = 2'-0"

AMERICAN MUSEUM OF NATURAL HISTORY
TEST PIT, TP-1

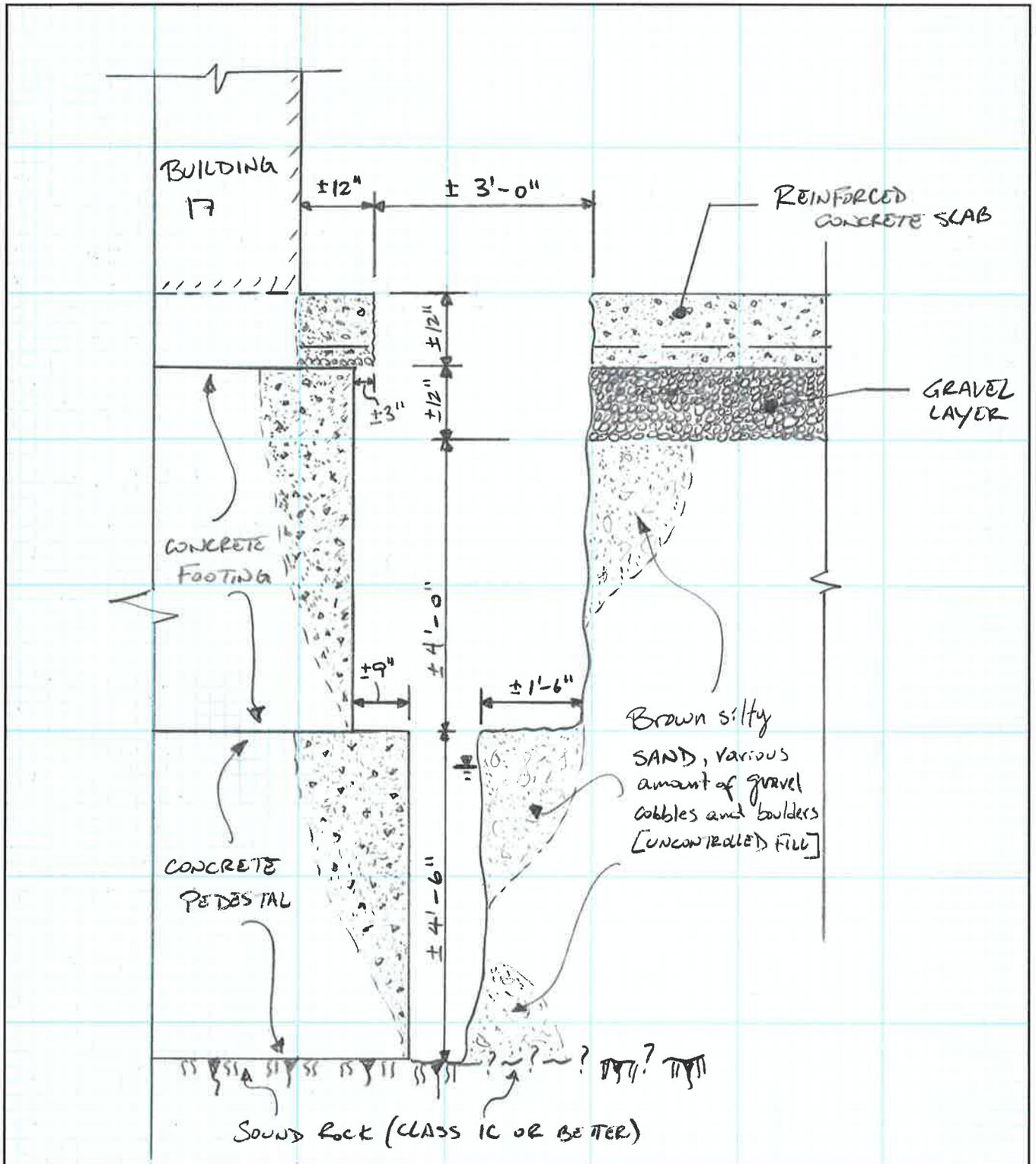
BY SAT DATE 3/15/17
CKD. DATE

PROJ. NO. 170132489
SHEET OF



PLAN VIEW
SCALE: 1" = 2'-0"

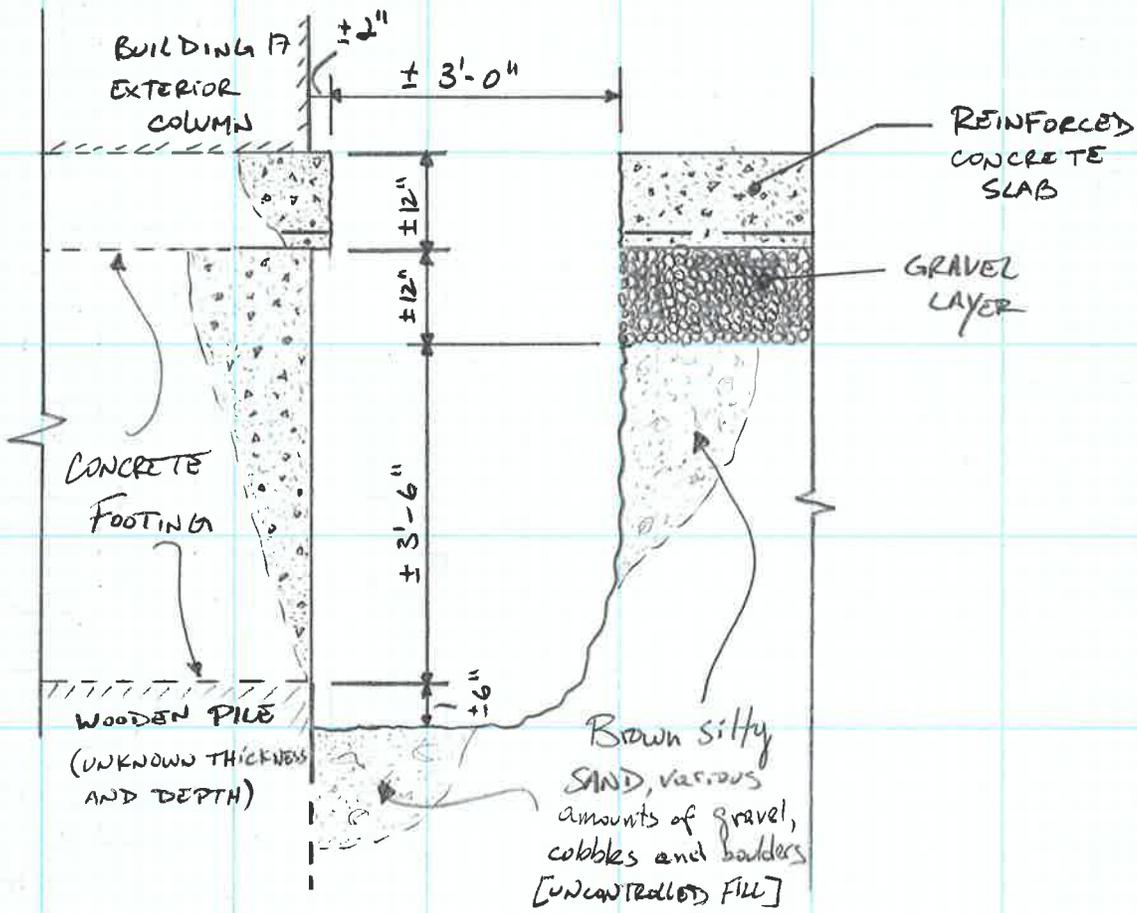
| | | |
|------------------------------------|-----------------------|----------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY | BY SAT DATE 3/27/17 | PROJ. NO. 170132-489 |
| TEST PIT, TP-1A | CKD. _____ DATE _____ | SHEET _____ OF _____ |



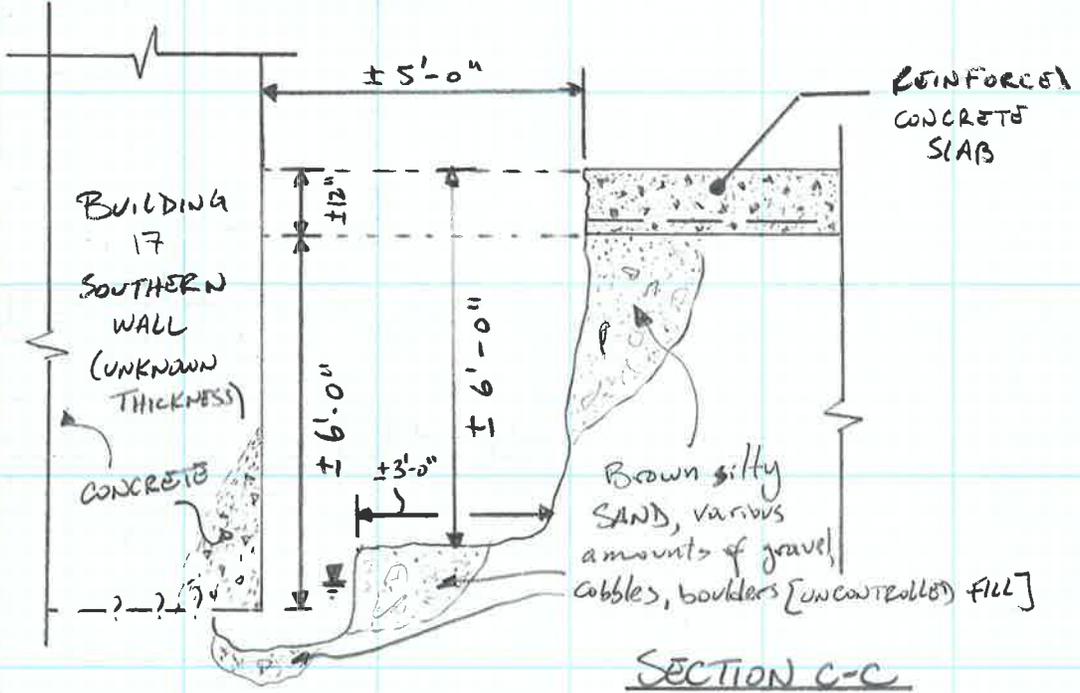
SECTION A-A
SCALE: 1" = 2'-0"

NOTE: Groundwater encountered about 6'-6" below top of slab.

| | | | |
|------------------------------------|--------|--------------|----------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY | BY SAT | DATE 3/27/17 | PROJ. NO. 170132489 |
| TEST PIT, TP-1A | CKD. | DATE | SHEET _____ OF _____ |



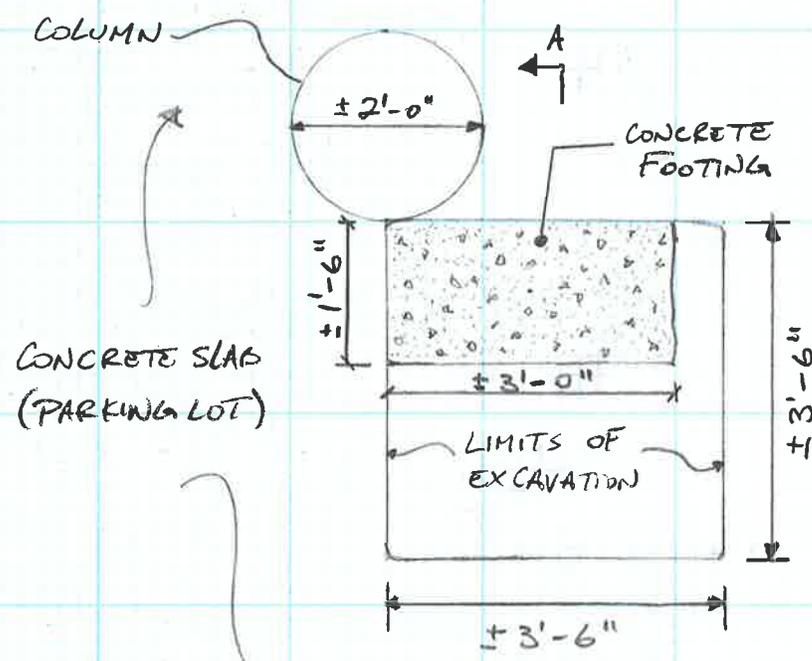
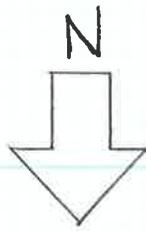
SECTION B-B
SCALE: 1" = 2'-0"



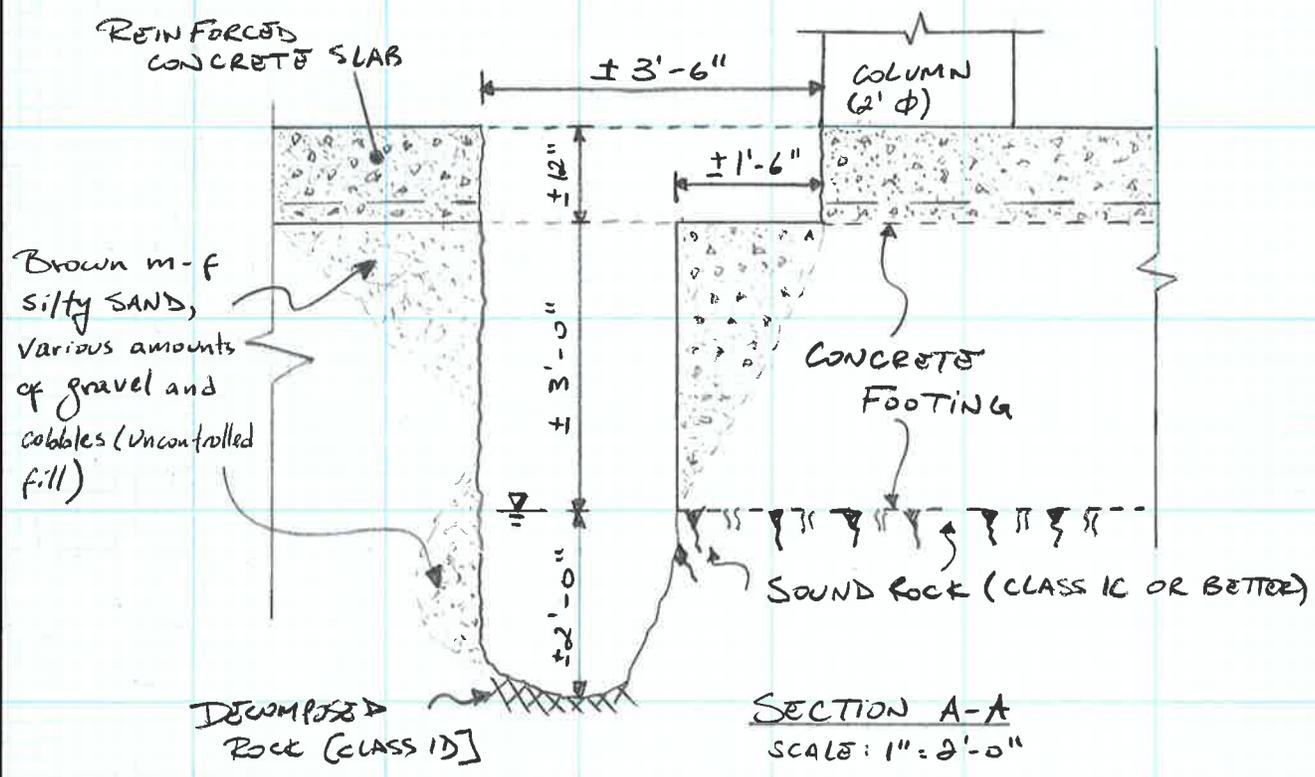
SECTION C-C
SCALE: 1" = 3'-0"

NOTE: Groundwater encountered about 6'-6" below top of slab

| | | | |
|------------------------------------|--------|--------------|----------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY | BY SAT | DATE 3/27/17 | PROJ. NO. 170132489 |
| TEST PIT, TP-1A | CKD. | DATE | SHEET _____ OF _____ |

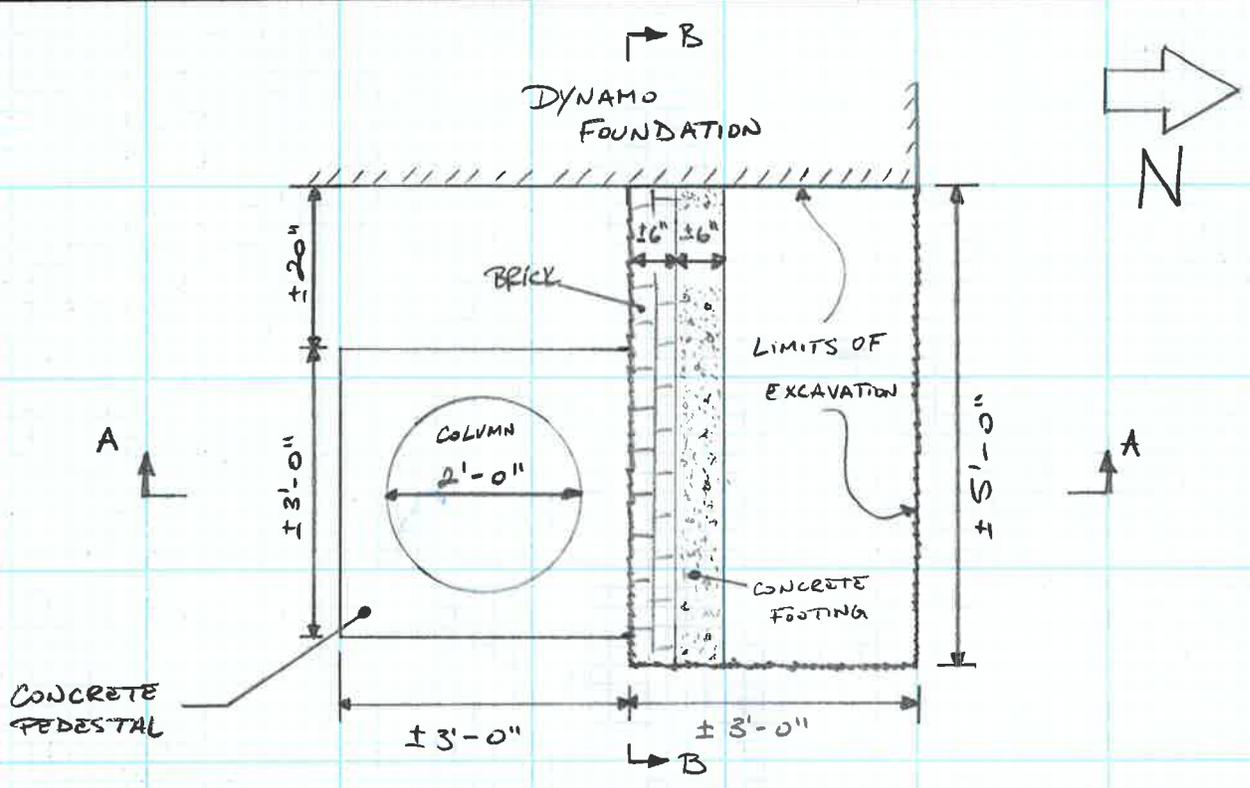


PLAN VIEW
SCALE: 1" = 2'-0"

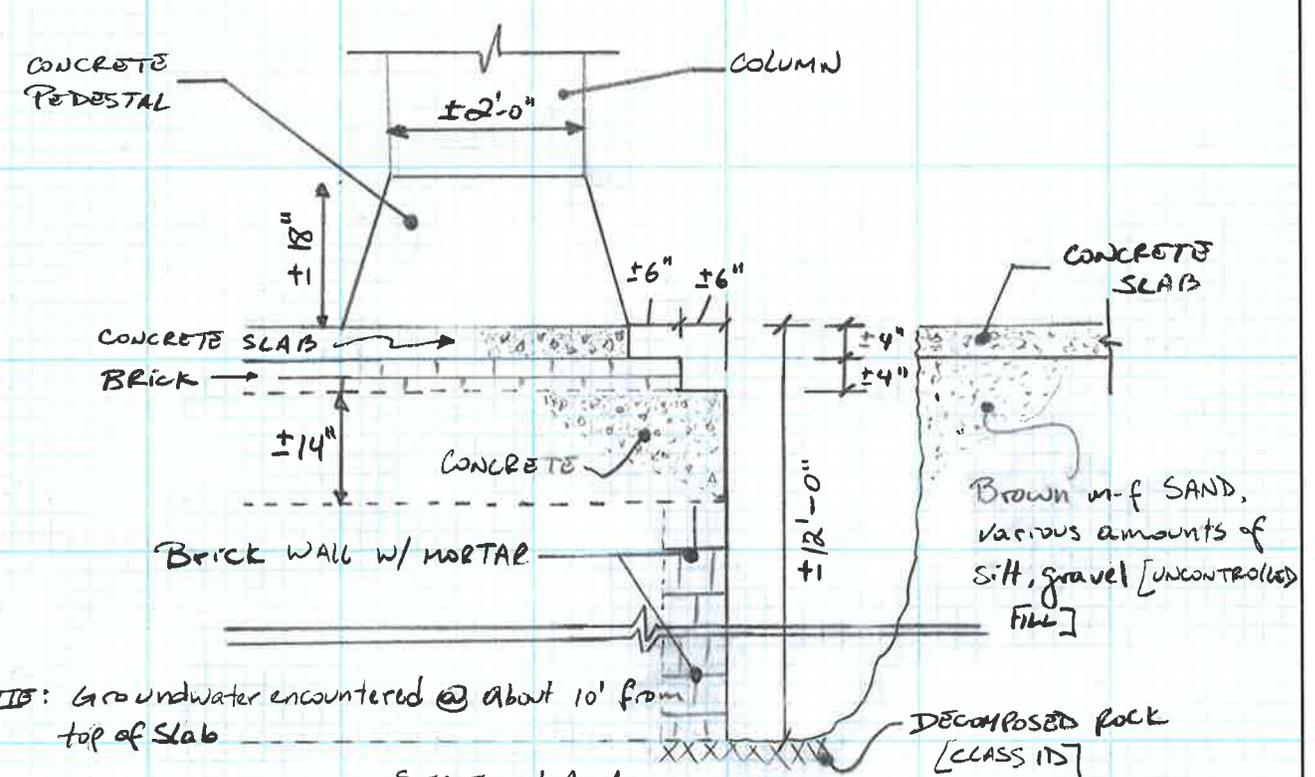


SECTION A-A
SCALE: 1" = 2'-0"

| | | | |
|------------------------------------|--------|--------------|----------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY | BY SAT | DATE 3/14/17 | PROJ. NO. 170132489 |
| TEST PIT, TP-2 | CKD. | DATE | SHEET _____ OF _____ |



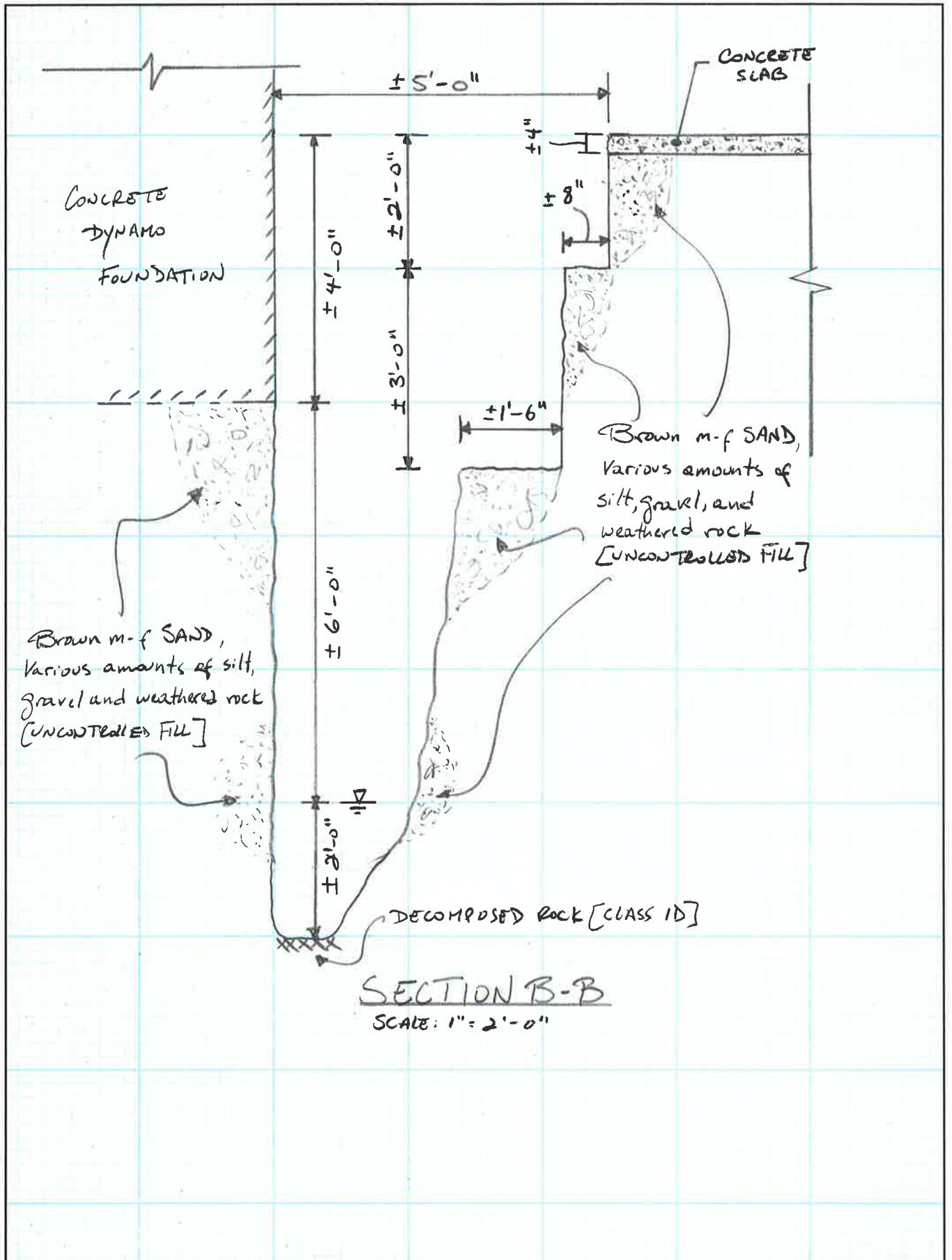
PLAN VIEW
SCALE: 1" = 2'-0"



NOTE: Groundwater encountered @ about 10' from top of slab

SECTION A-A
SCALE: 1" = 2'-0"

| | | | |
|--|--------|----------------|----------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY TEST PIT, TP-3 | BY SAT | DATE 3/15/2017 | PROJ. NO. 170132489 |
| | CKD. | DATE | SHEET _____ OF _____ |



AMERICAN MUSEUM OF NATURAL HISTORY

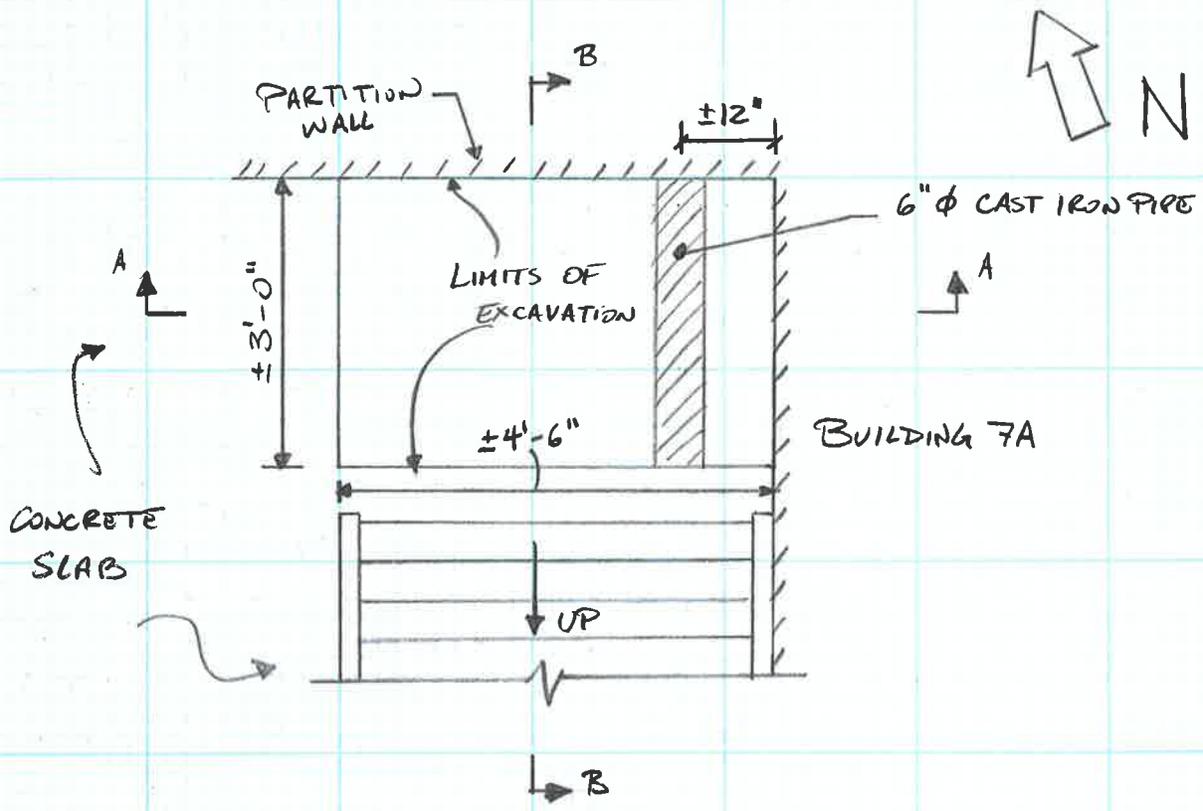
TEST PIT, TP-3

BY SAT DATE 3/15/2017

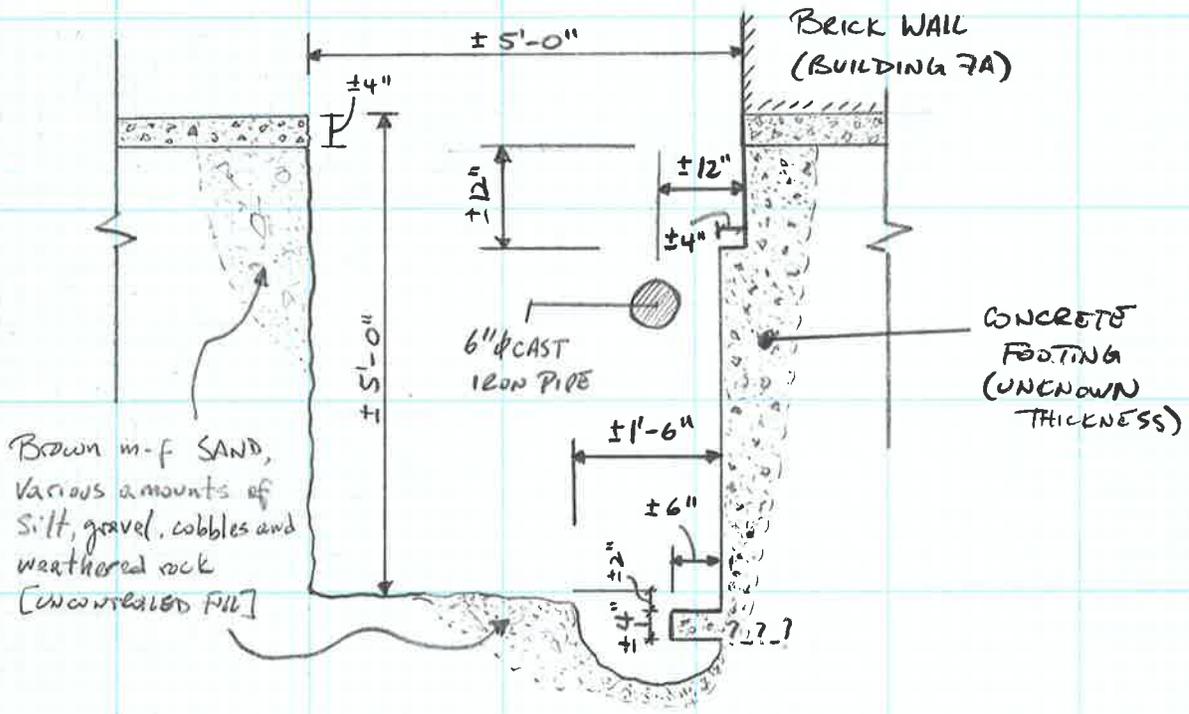
OKD. DATE

PROJ. NO. 170132489

SHEET OF

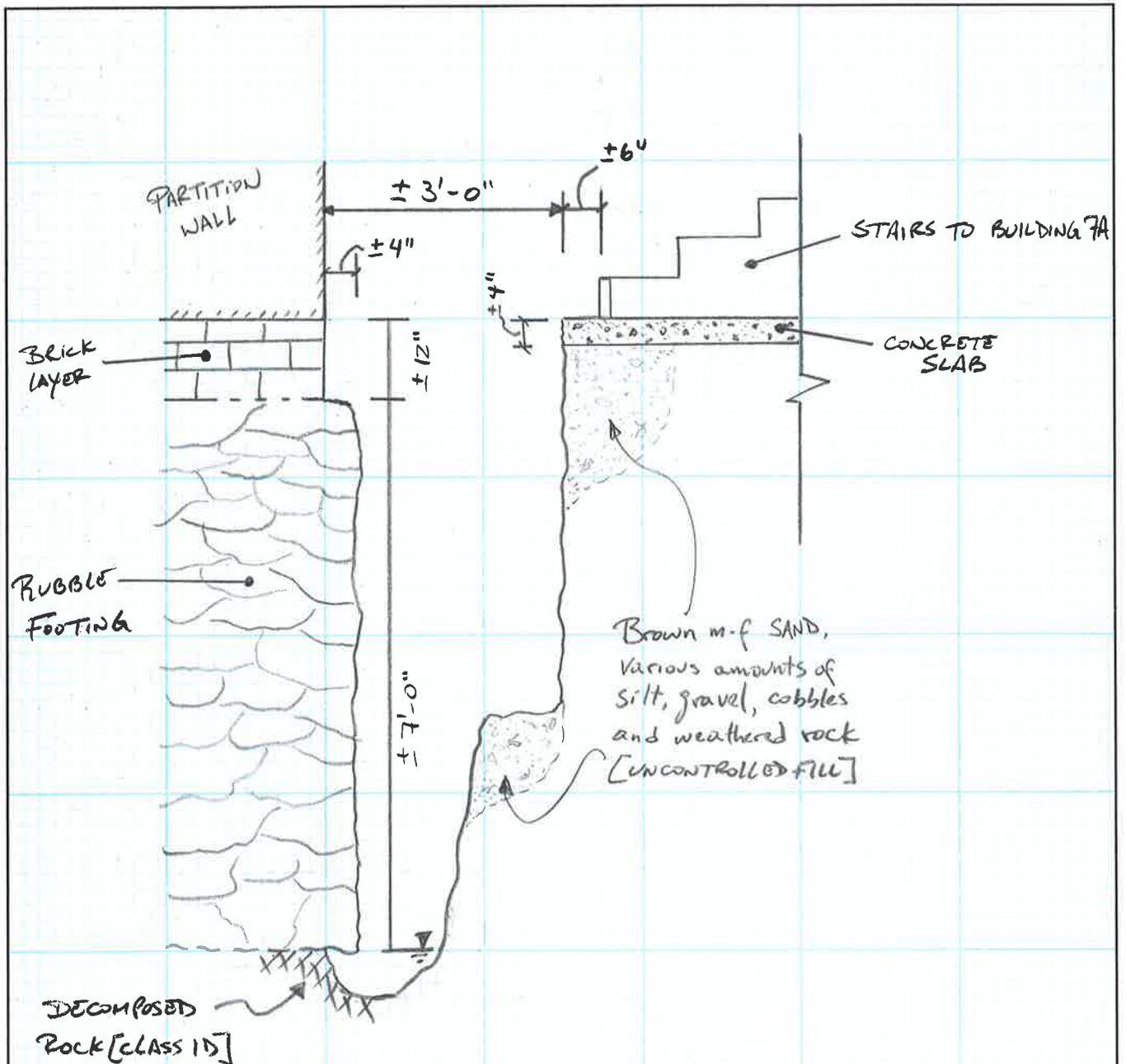


PLAN VIEW
SCALE: 1" = 2'-0"



SECTION A-A
SCALE: 1" = 2'-0"

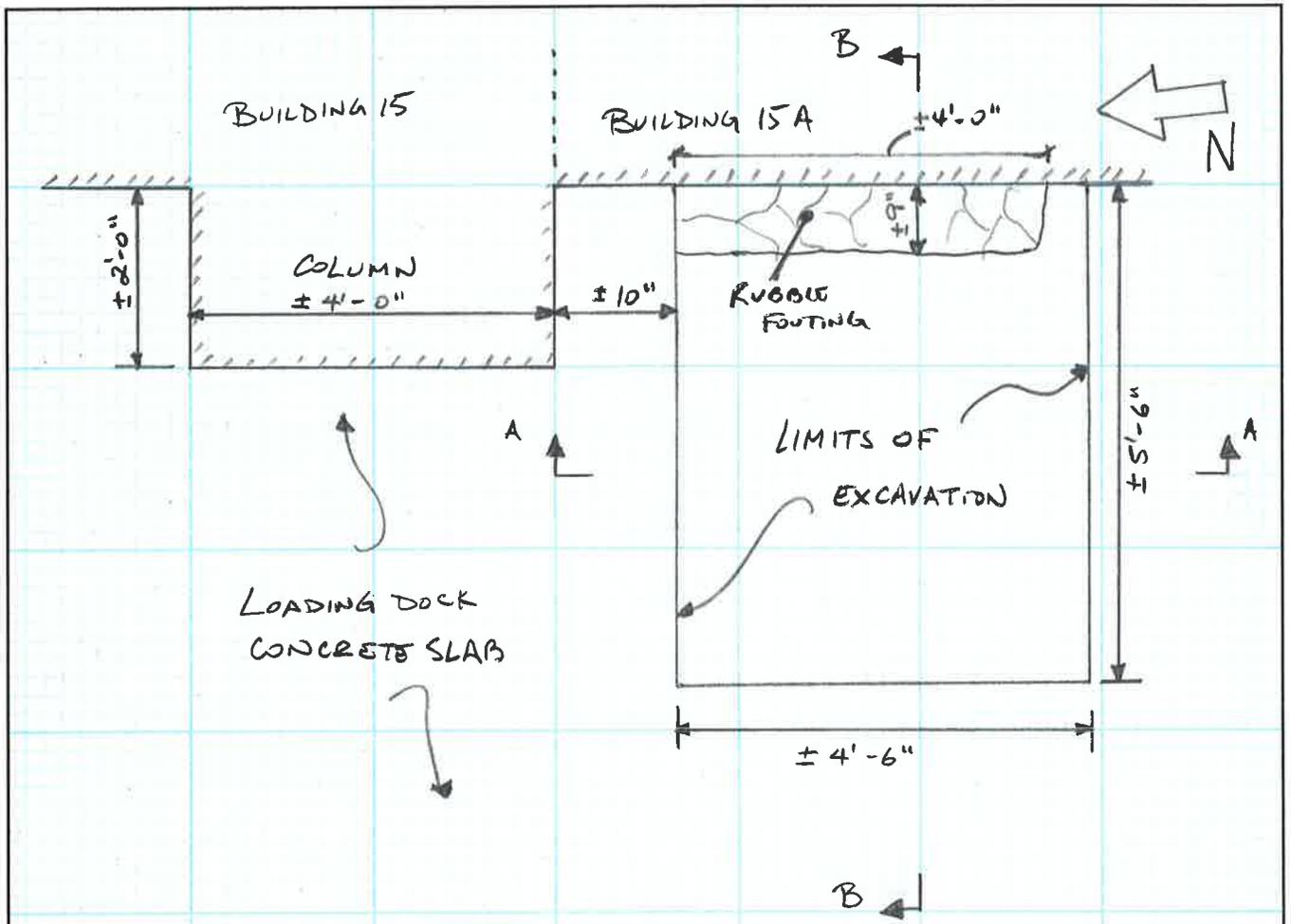
| | | | |
|------------------------------------|--------|--------------|----------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY | BY SAT | DATE 3/15/17 | PROJ. NO. 170132489 |
| TEST PIT, TP-4 | CKD. | DATE | SHEET _____ OF _____ |



SECTION B-B
 SCALE: 1" = 2'-0"

NOTE : Groundwater encountered at about 8' below top of slab

| | | |
|------------------------------------|-----------------------|----------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY | BY SAT DATE 3/15/17 | PROJ. NO. 170132489 |
| TEST PIT, TP-4 | CKD. _____ DATE _____ | SHEET _____ OF _____ |

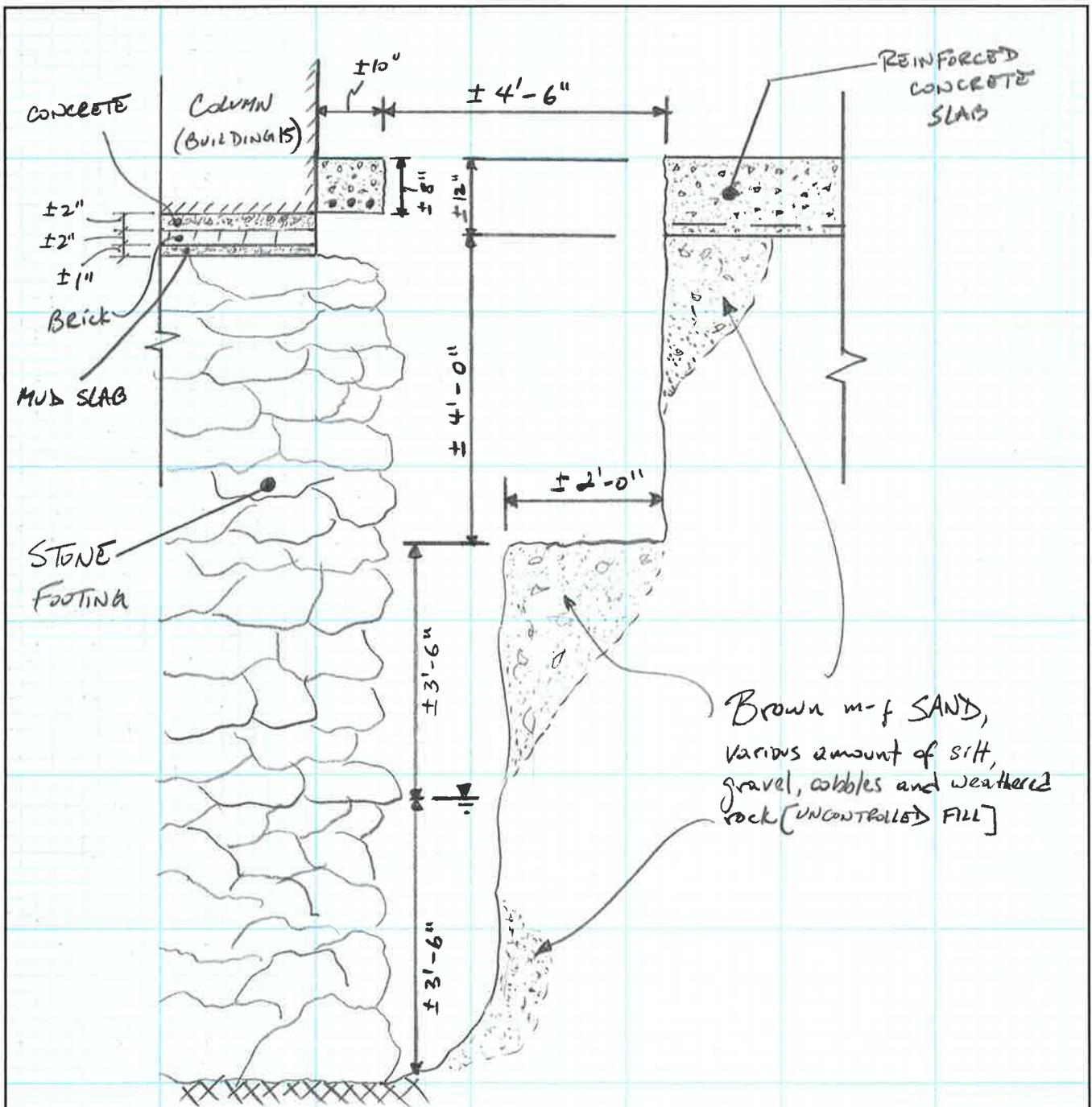


PLAN VIEW
SCALE: 1" = 2'-0"

AMERICAN MUSEUM OF NATURAL HISTORY
TEST PIT, TP-5

BY SAT DATE 3/16/17
CKD. _____ DATE _____

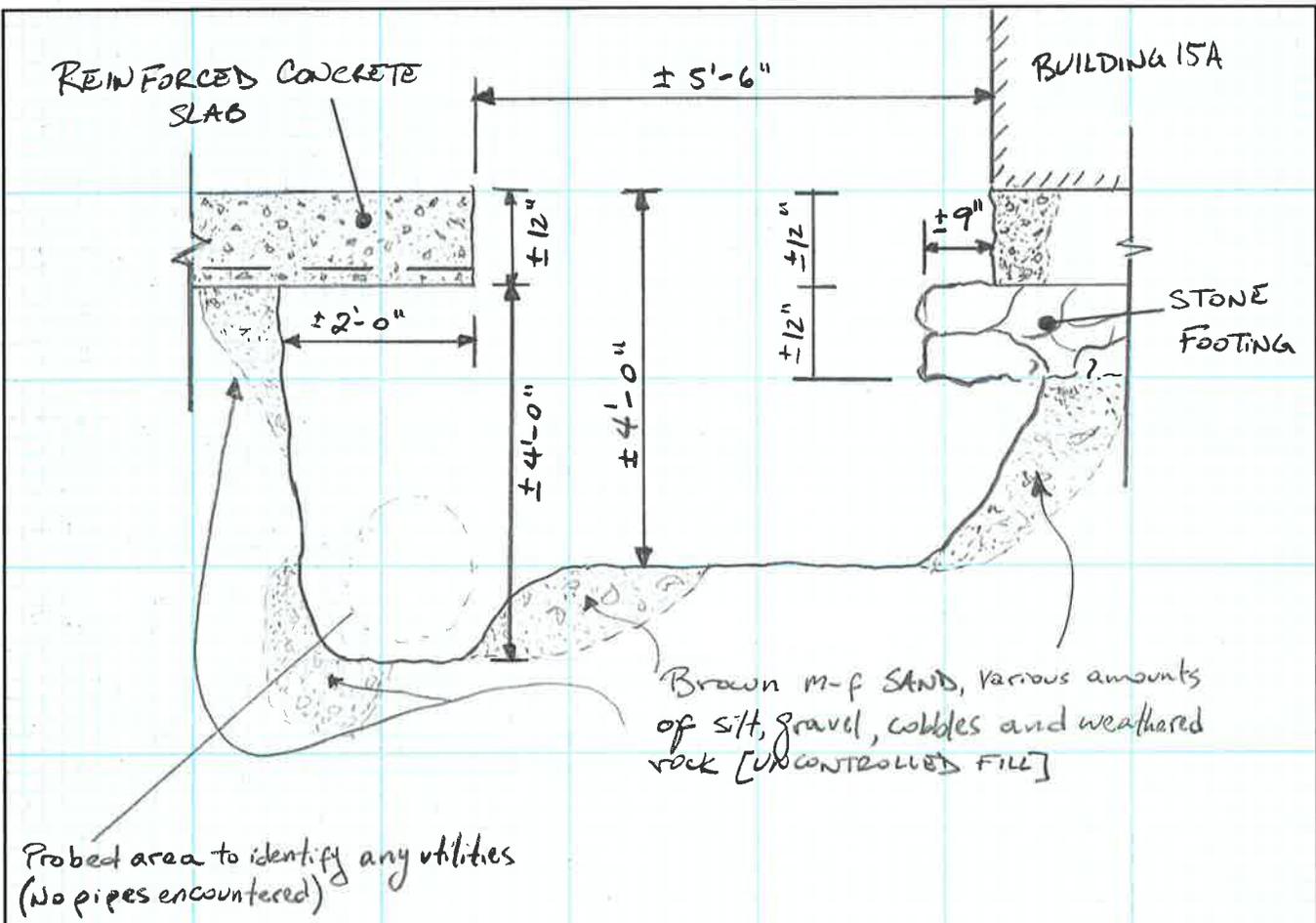
PROJ. NO. 170132489
SHEET _____ OF _____



SECTION A-A
 SCALE: 1" = 2'-0"

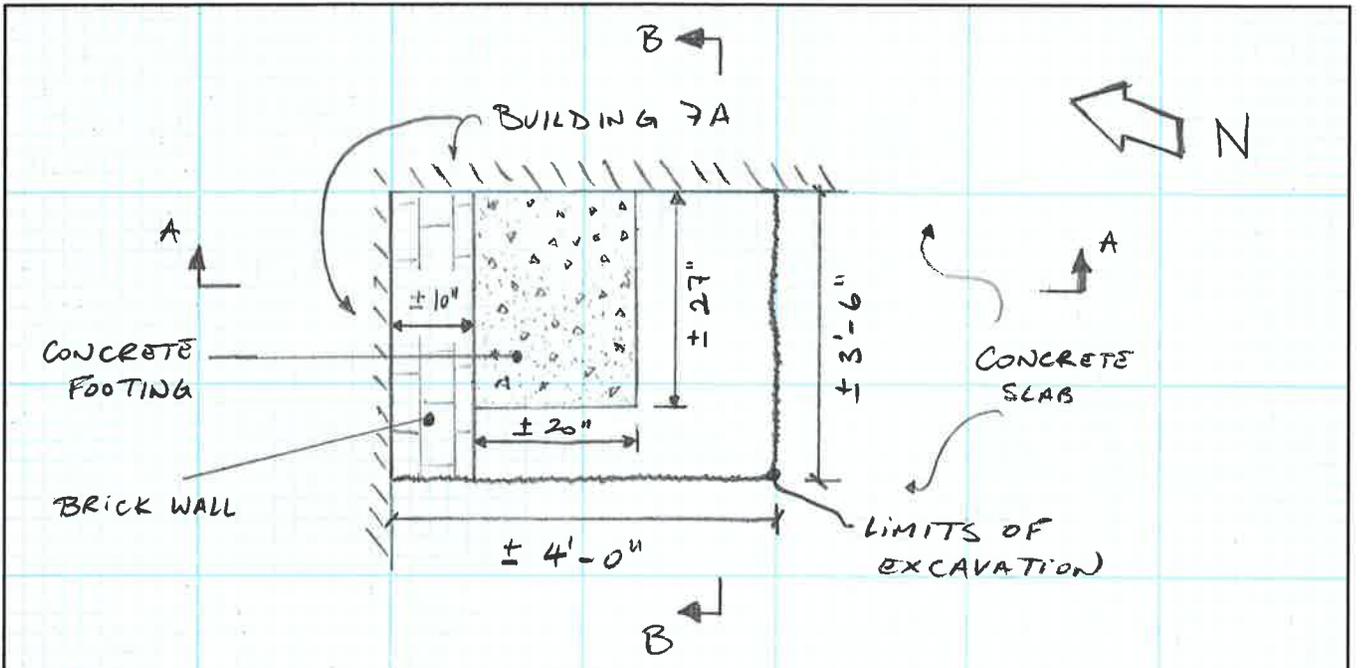
Note: Groundwater encountered at about 7'-6" from top of slab

| | | |
|--|----------------------------------|---------------------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY TEST PIT, TP-5 | BY SAT DATE 3/16/17 CKD. DATE | PROJ. NO. 170132489 SHEET OF |
|--|----------------------------------|---------------------------------|

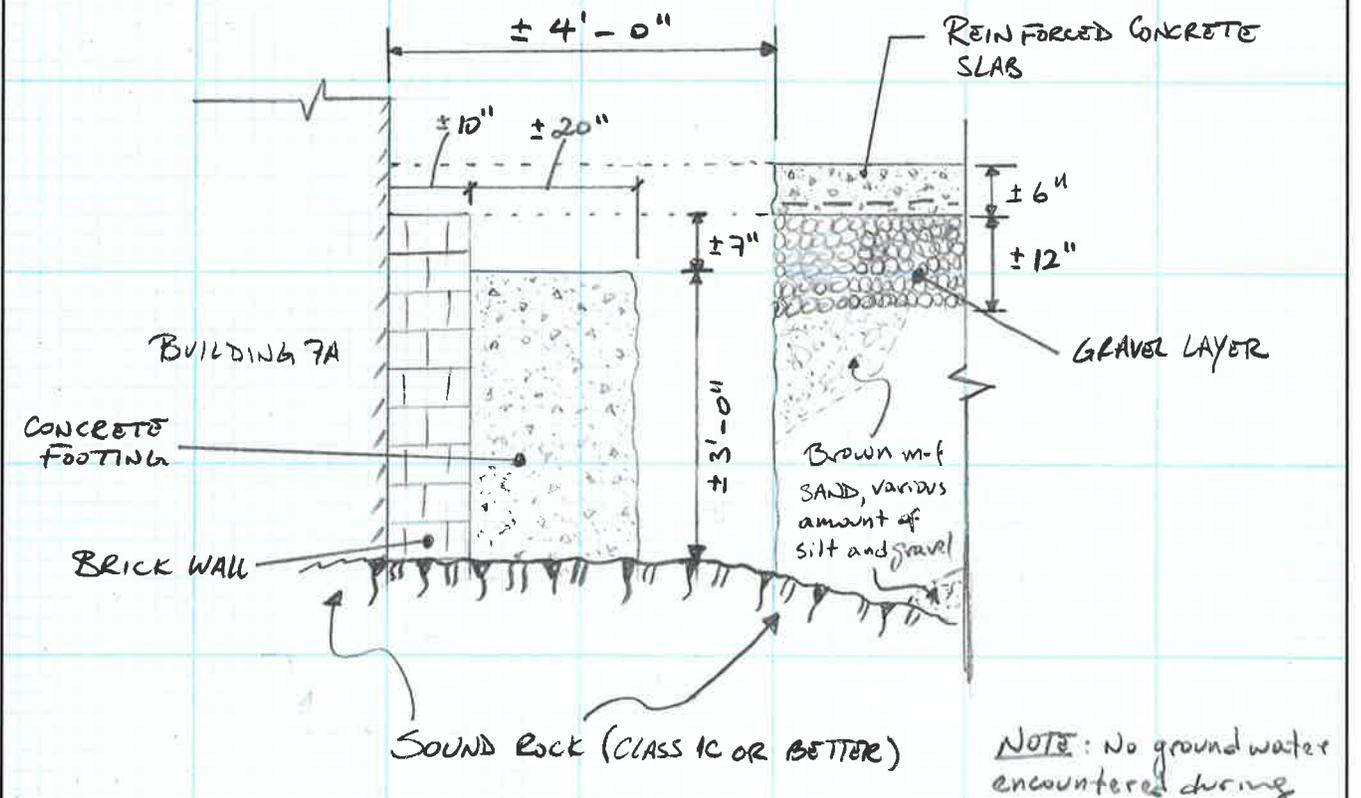


SECTION B-B
 SCALE: 1" = 2'-0"

| | | |
|------------------------------------|-----------------------------------|----------------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY | BY <u>SAT</u> DATE <u>3/16/17</u> | PROJ. NO. <u>170132489</u> |
| TEST PIT, TP-5 | CKD. _____ DATE _____ | SHEET _____ OF _____ |



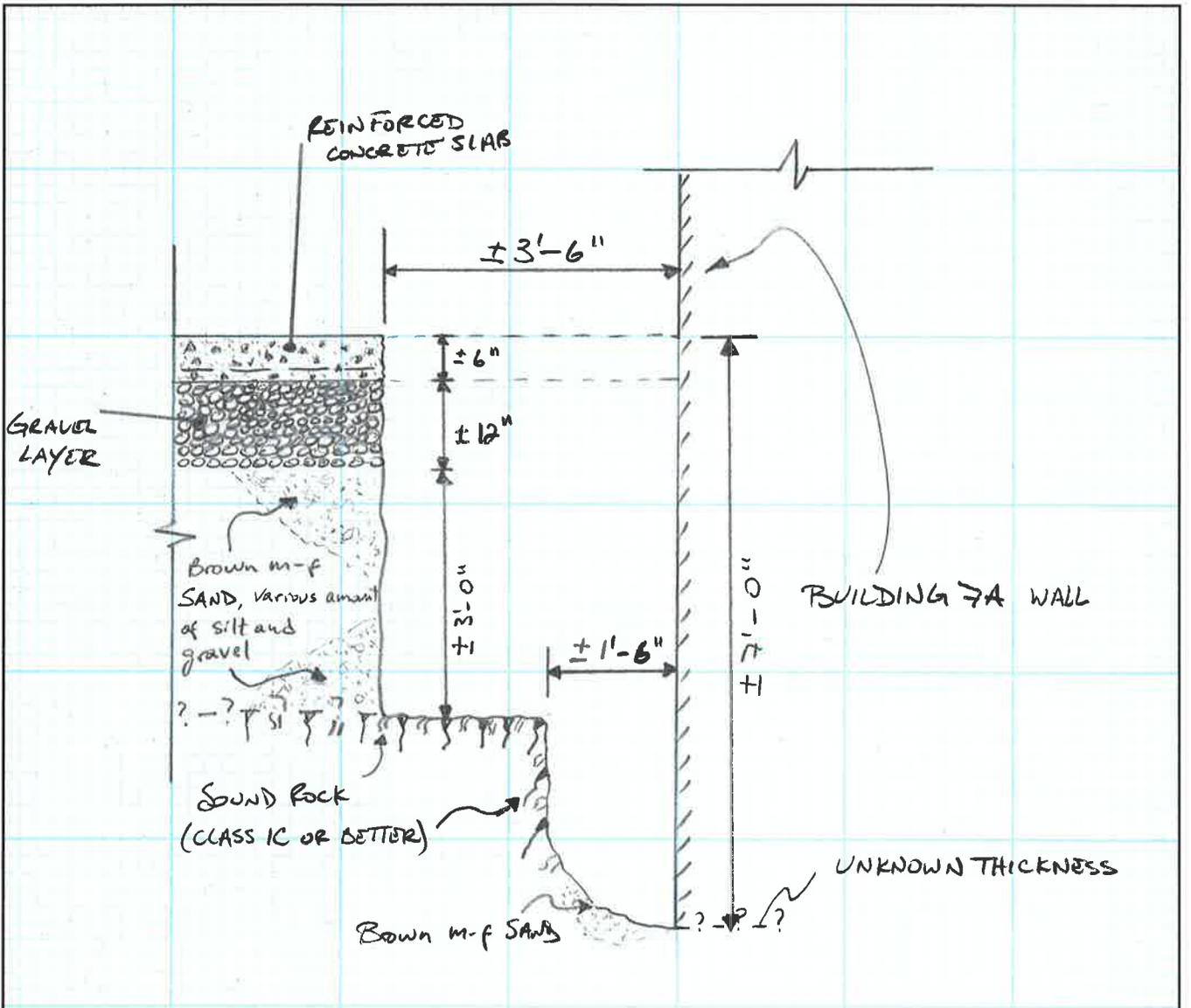
PLAN VIEW
SCALE: 1" = 2'-0"



SECTION A-A
SCALE: 1" = 2'-0"

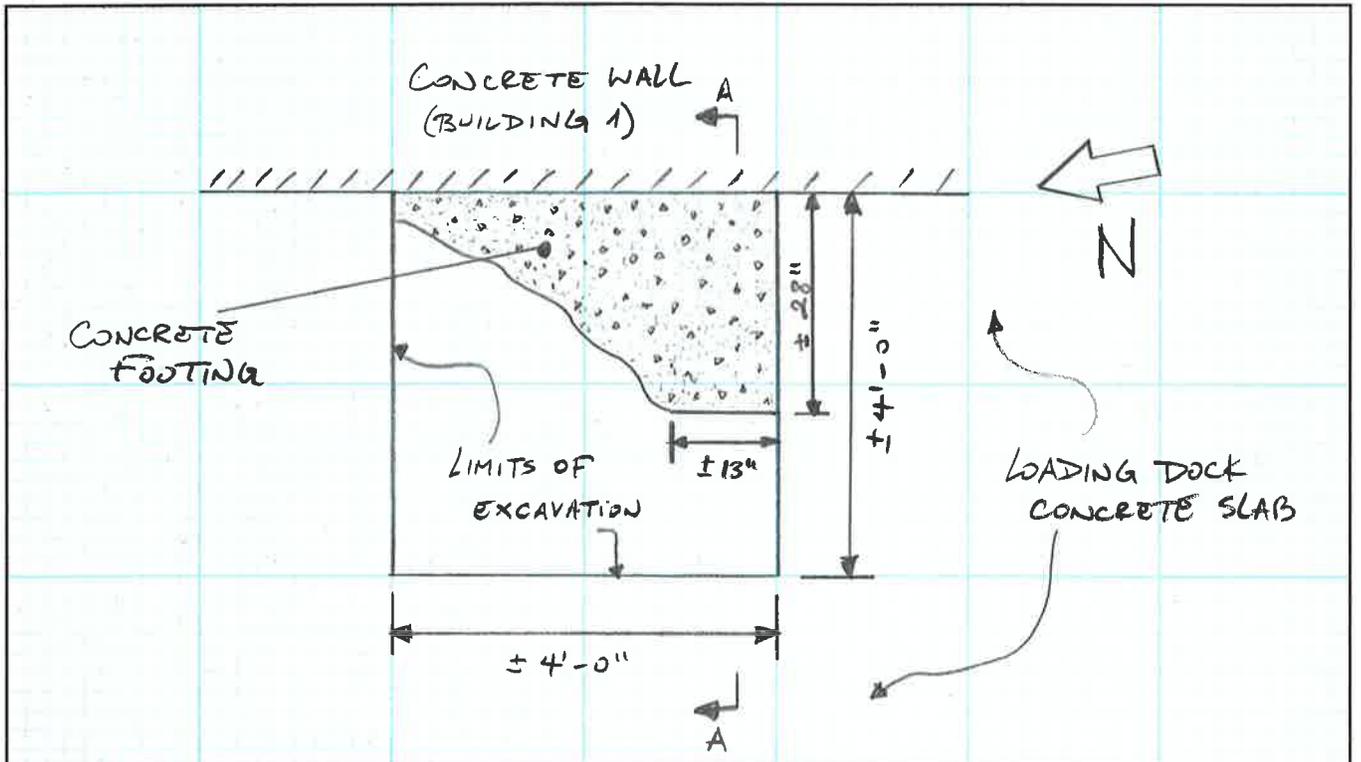
NOTE: No ground water encountered during excavation.

| | | | |
|------------------------------------|--------|--------------|----------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY | BY SAT | DATE 3/14/17 | PROJ. NO. 170132489 |
| TEST PIT, TP-6 | CKD. | DATE | SHEET _____ OF _____ |

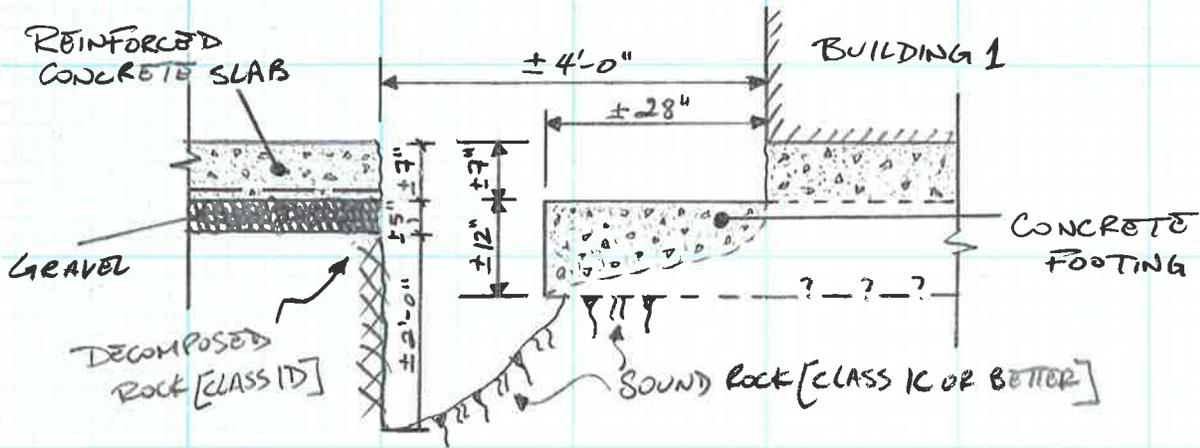


SECTION B-B
SCALE: 1" = 2'-0"

| | | |
|------------------------------------|-----------------------|----------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY | BY SAT DATE 3/14/17 | PROJ. NO. 170132489 |
| TEST PIT, TP-6 | CKD. _____ DATE _____ | SHEET _____ OF _____ |

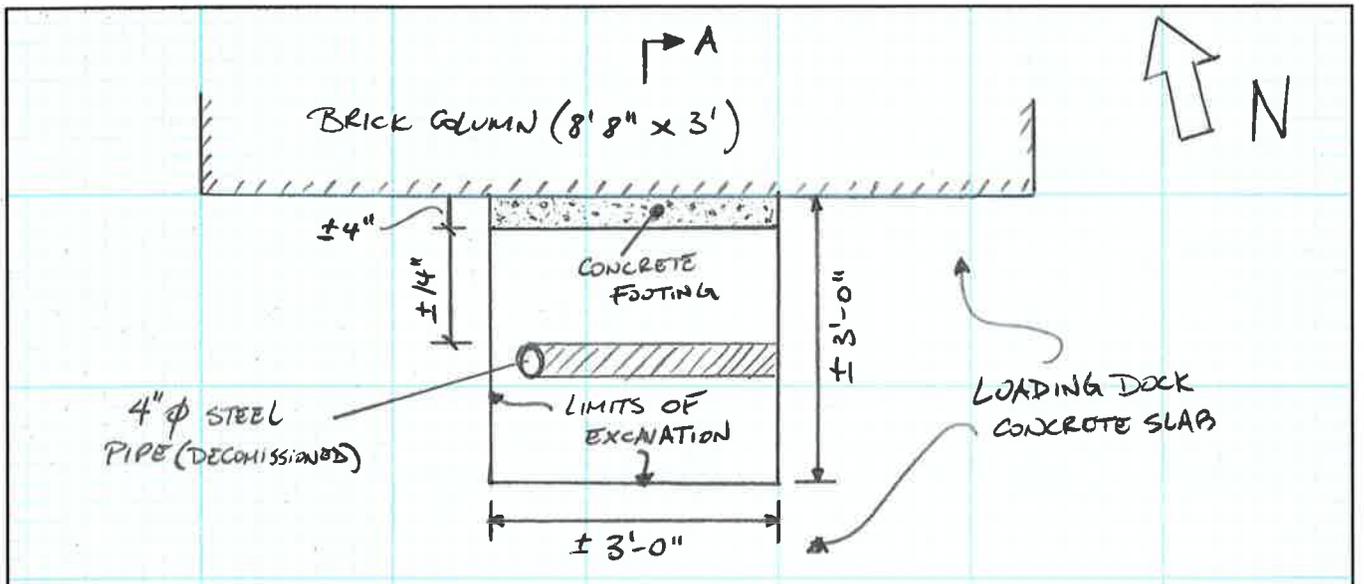


PLAN VIEW
SCALE: 1" = 2'-0"

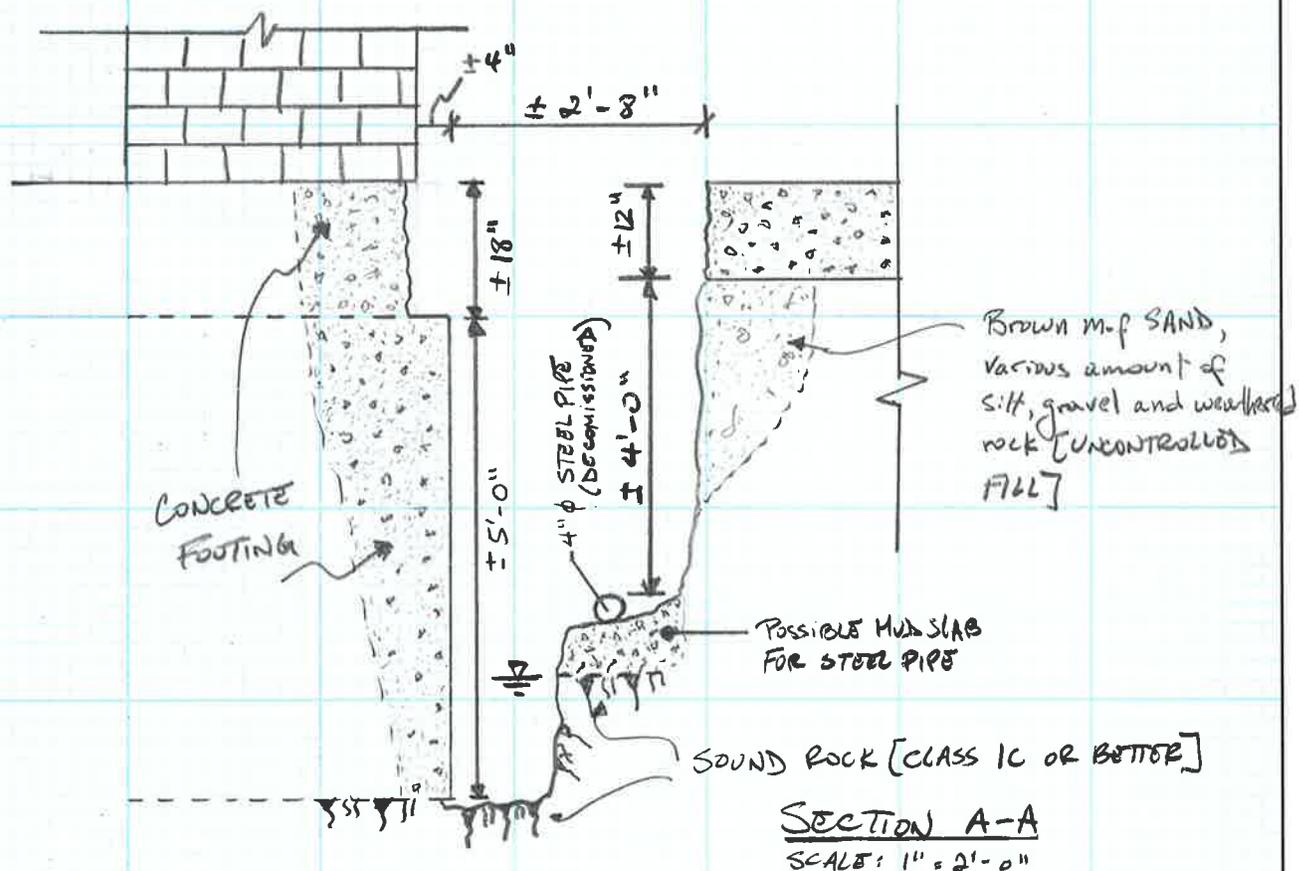


SECTION A-A
SCALE: 1" = 2'-0"

| | | |
|------------------------------------|-----------------------|----------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY | BY SAT DATE 3/20/17 | PROJ. NO. 170132489 |
| TEST PIT, TP-7 | CKD. _____ DATE _____ | SHEET _____ OF _____ |

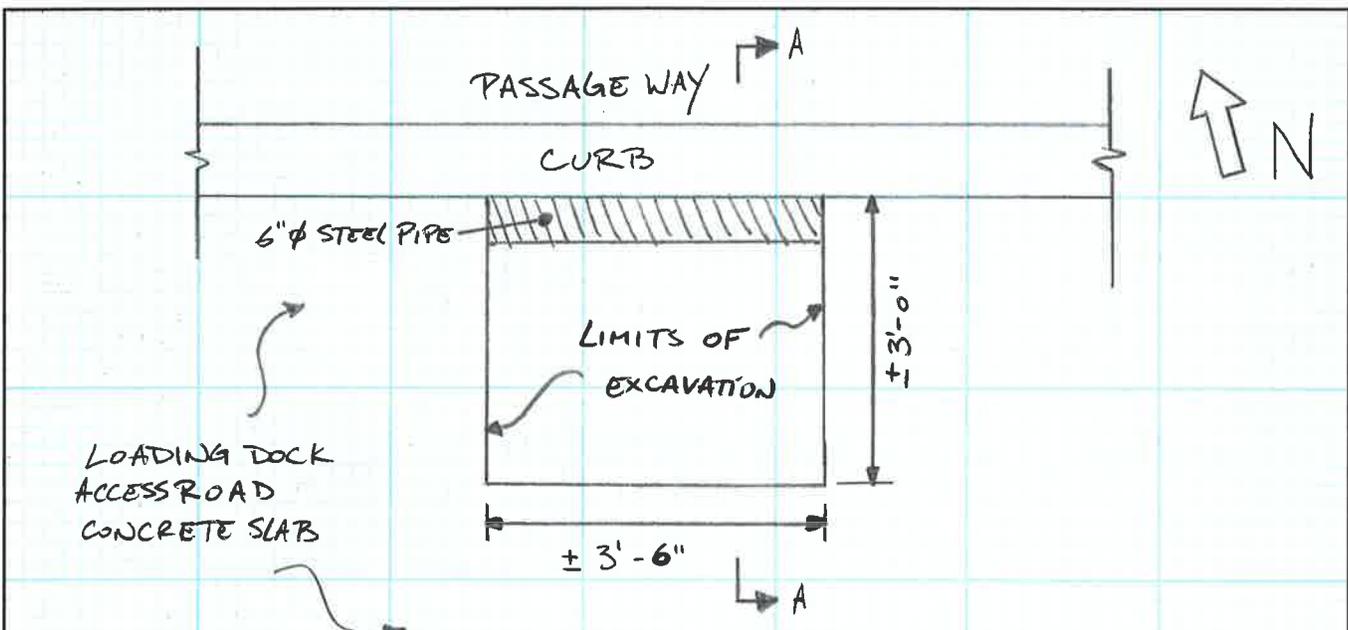


PLAN VIEW
SCALE: 1" = 2'-0"

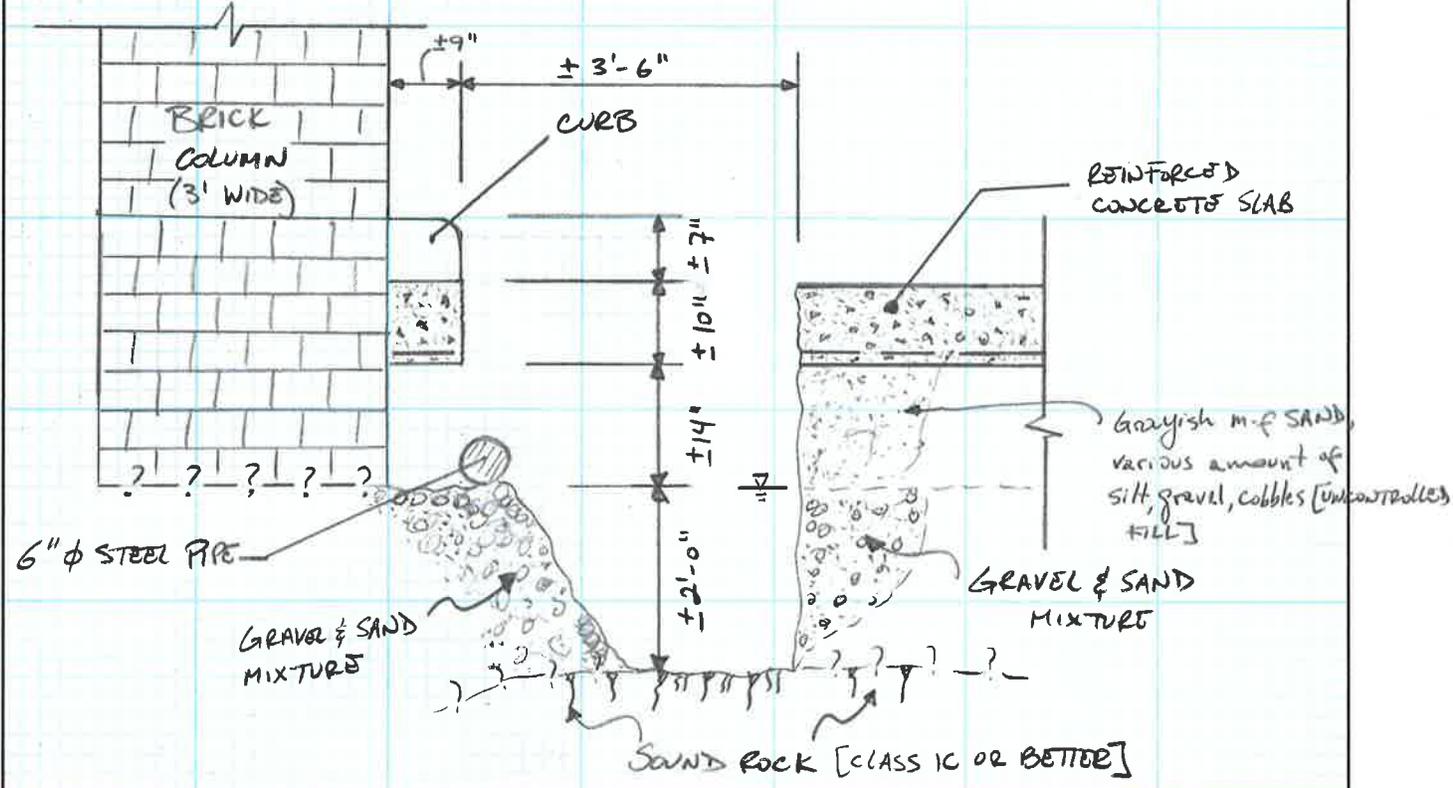


NOTE: Groundwater encountered at about 5' from top of slab

| | | |
|------------------------------------|-----------------------|----------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY | BY SAT DATE 3/15/17 | PROJ. NO. 170132489 |
| TEST PIT, TP-8 | CKD. _____ DATE _____ | SHEET _____ OF _____ |



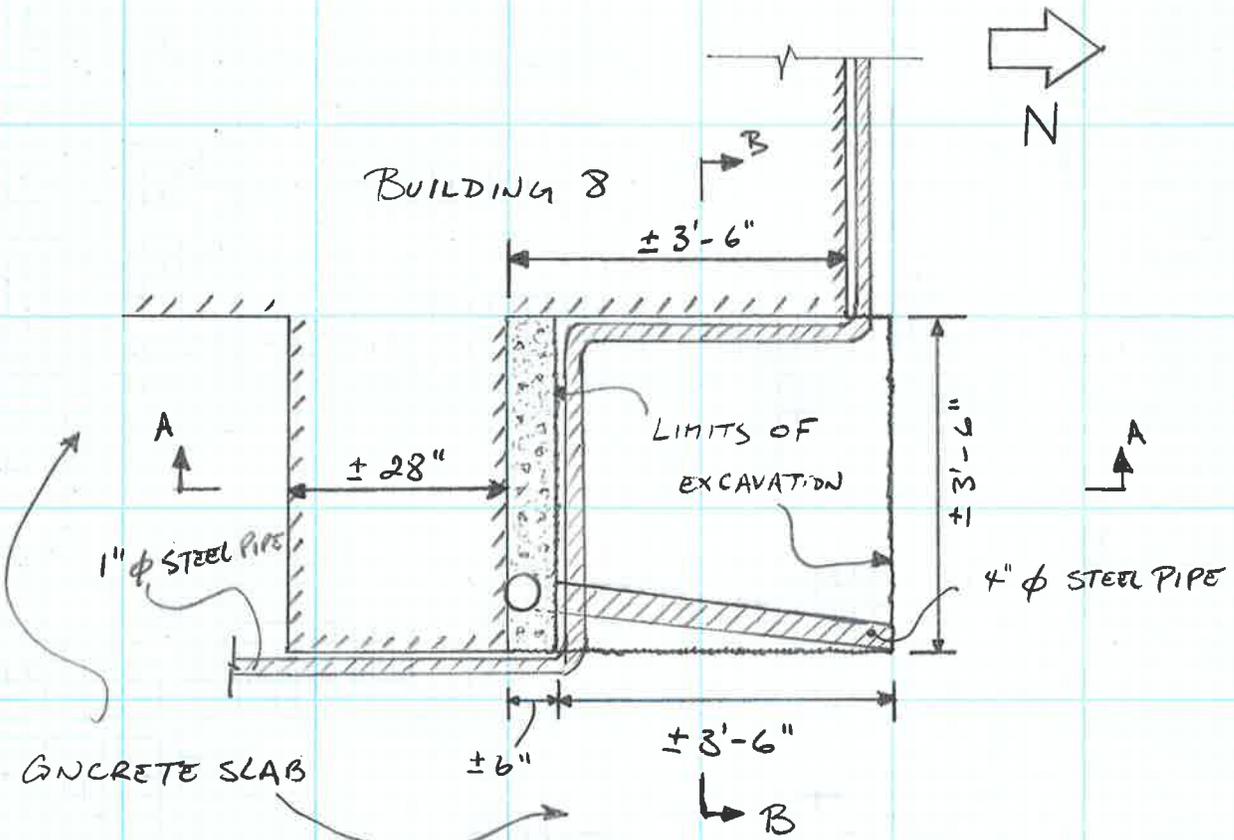
PLAN VIEW
SCALE: 1" = 2'-0"



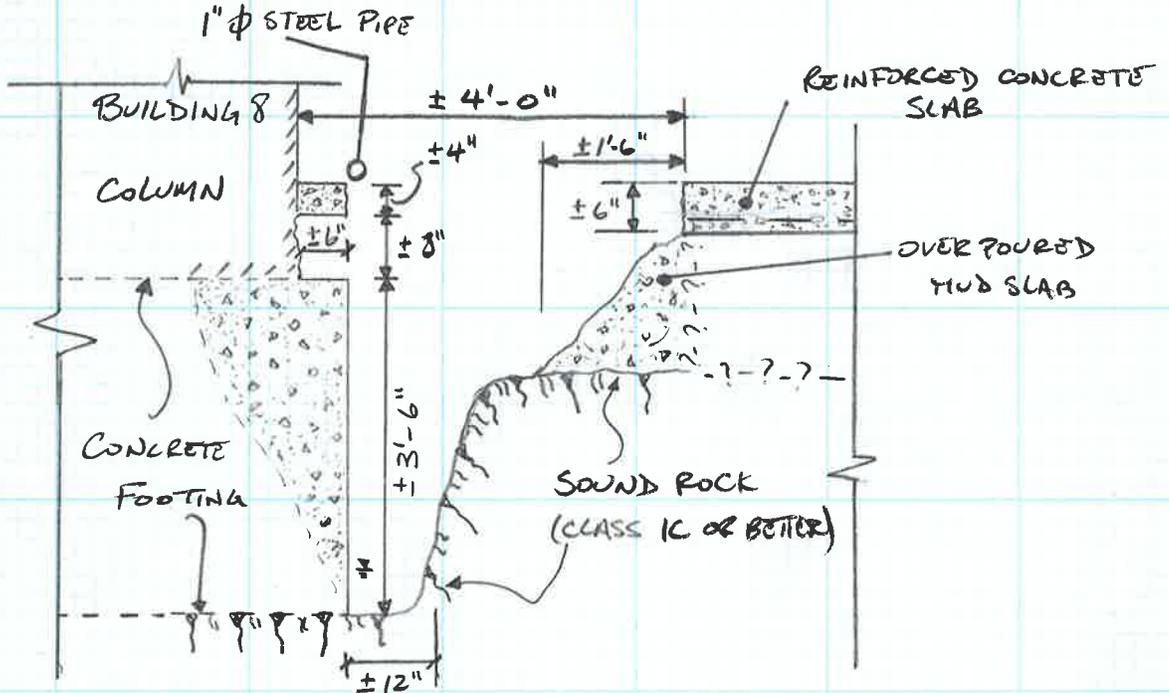
SECTION A-A
SCALE: 1" = 2'-0"

NOTE: Groundwater encountered about 2'-0" from top of concrete slab

| | | |
|------------------------------------|-----------------------|----------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY | BY SAT DATE 3/20/17 | PROJ. NO. 170132489 |
| TEST PIT, TP-9 | CKD. _____ DATE _____ | SHEET _____ OF _____ |

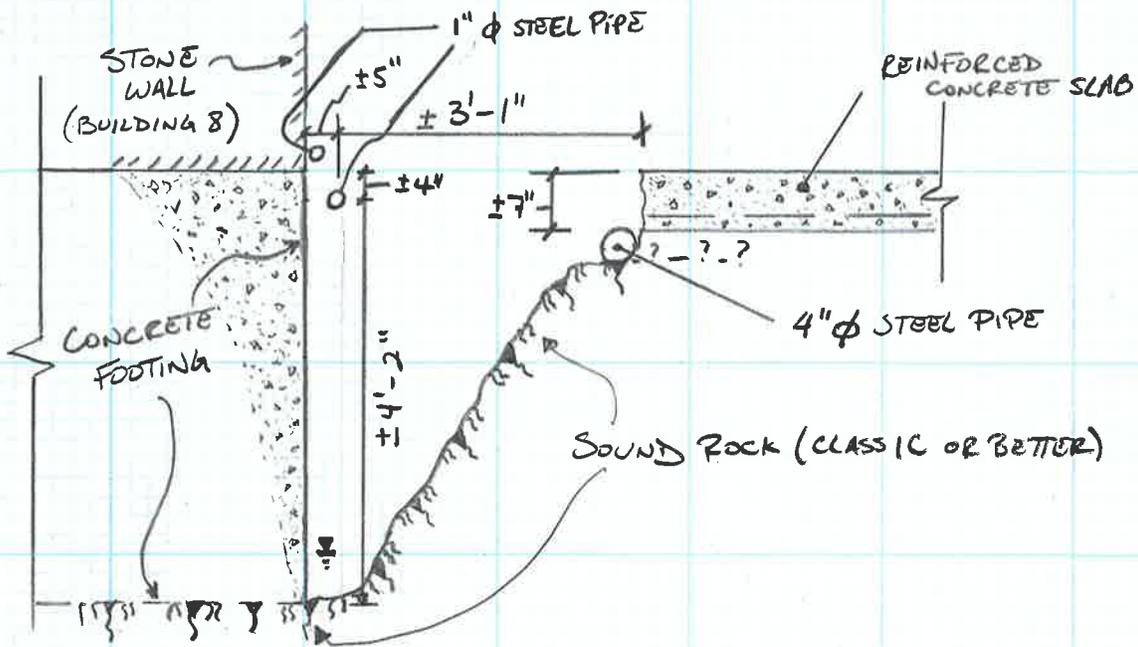


PLAN VIEW
 SCALE: 1" = 2'-0"



SECTION A-A
 SCALE: 1" = 2'-0"

| | | | |
|------------------------------------|--------|--------------|----------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY | BY SAT | DATE 3/14/17 | PROJ. NO. 170132489 |
| TEST PIT, TP-10 | CKD. | DATE | SHEET _____ OF _____ |



SECTION B-B

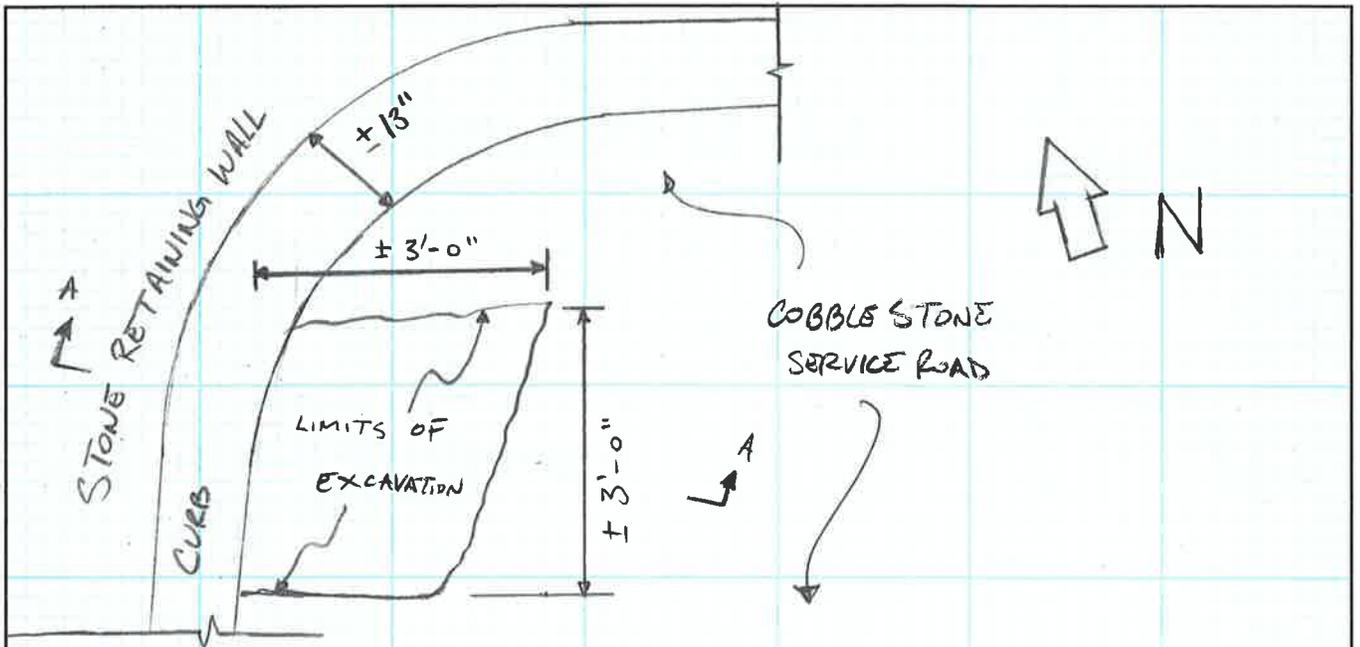
SCALE: 1" = 2'-0"

NOTE: Groundwater was encountered about 4'-0" from top of slab

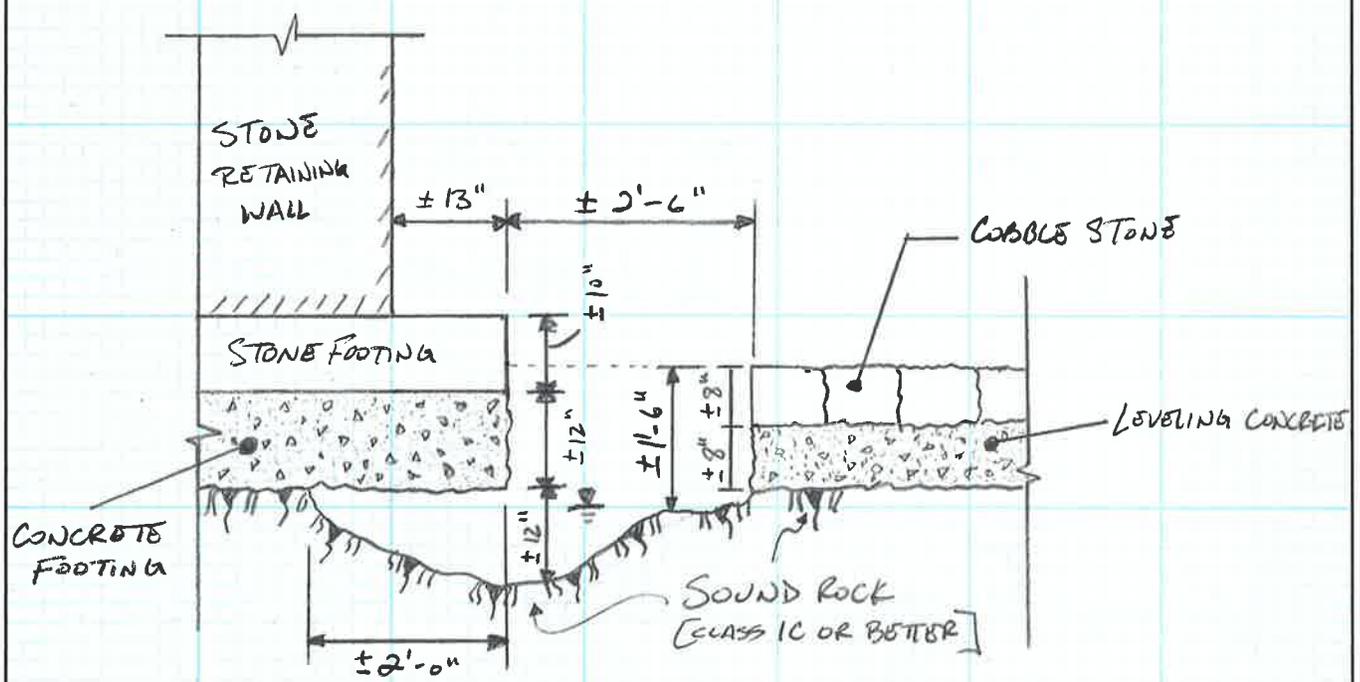
AMERICAN MUSEUM OF NATURAL HISTORY
TEST PIT, TP-10

BY SAT DATE 3/14/17
CKD. DATE

PROJ. NO. 170132489
SHEET OF



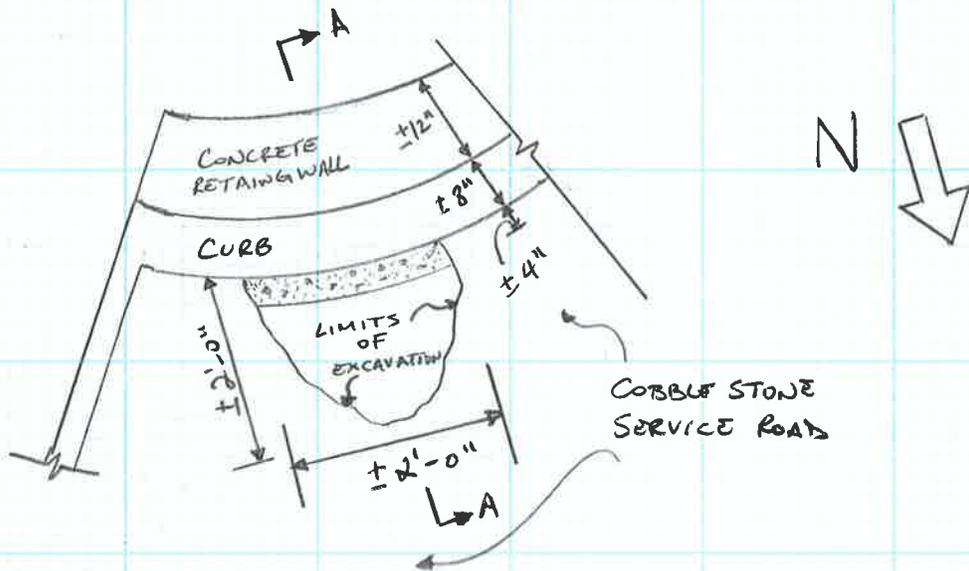
PLAN VIEW
SCALE: 1" = 2'-0"



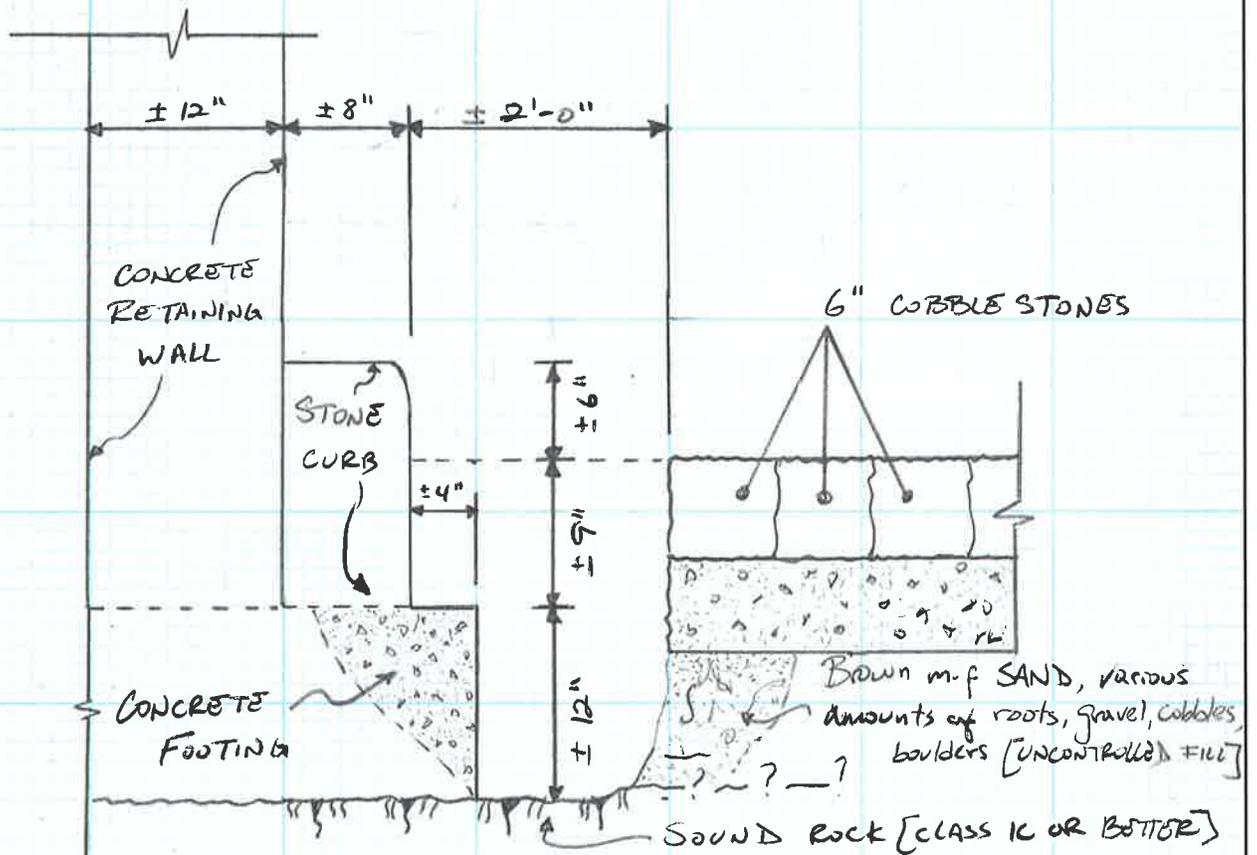
SECTION A-A
SCALE: 1" = 2'-0"

NOTE: Groundwater encountered about 1'-6" from top of cobbles stones.

| | | |
|---|----------------------------------|---|
| AMERICAN MUSEUM OF NATURAL HISTORY TEST PIT, TP-12 | BY SAT DATE 3/28/17 CKD. DATE | PROJ. NO. 170132489 SHEET _____ OF _____ |
|---|----------------------------------|---|



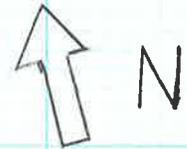
PLAN VIEW
SCALE: 1" = 2'-0"



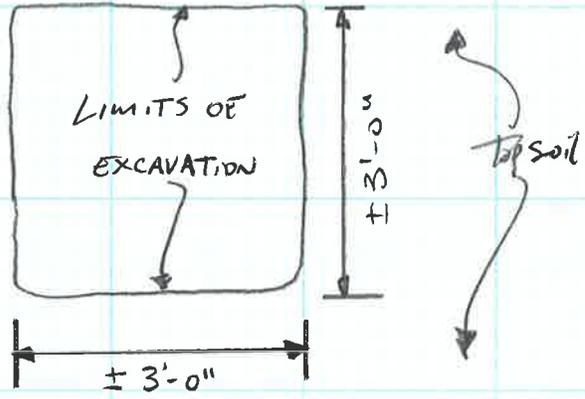
SECTION A-A
SCALE: 1" = 1'-0"

NOTE: No groundwater encountered during excavation.

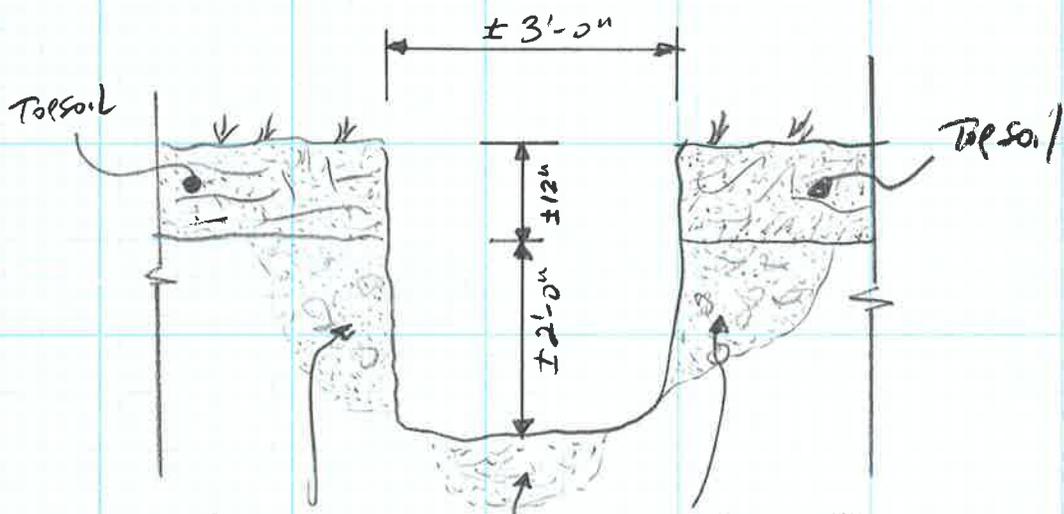
| | | |
|------------------------------------|-----------------------|----------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY | BY: SAT DATE 3/28/17 | PROJ. NO. 170132489 |
| TEST PIT, TP-13 | CKD. _____ DATE _____ | SHEET _____ OF _____ |



LANDSCAPED
PARK AREA
(SOUTH OF WIRE FENCE)



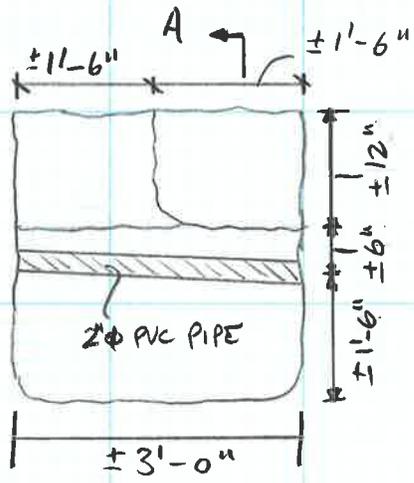
PLAN VIEW
SCALE: 1" = 2'-0"



Brown m.f. SAND, various amounts of silt
brick, cobbles and weathered rock [uncontrolled fill]

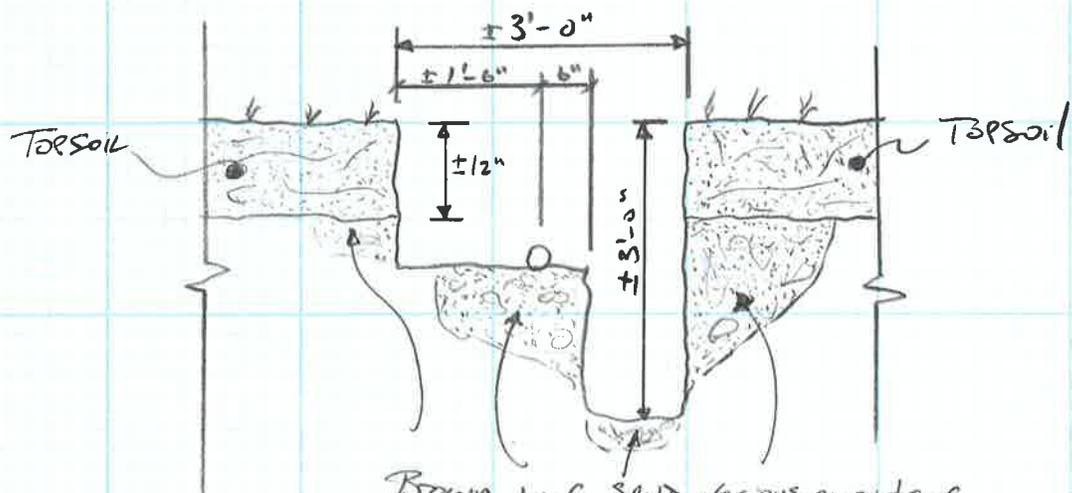
| | | | |
|------------------------------------|--------|--------------|----------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY | BY SAT | DATE 3/29/17 | PROJ. NO. 1701 52489 |
| LANDSCAPE TEST PIT, LTP-1 | CKD. | DATE | SHEET _____ OF _____ |

LANDSCAPED
PARK AREA
(ENCLOSED
TRIANGULAR
AREA)



Top Soil

PLAN VIEW
SCALE: 1" = 2'-0"



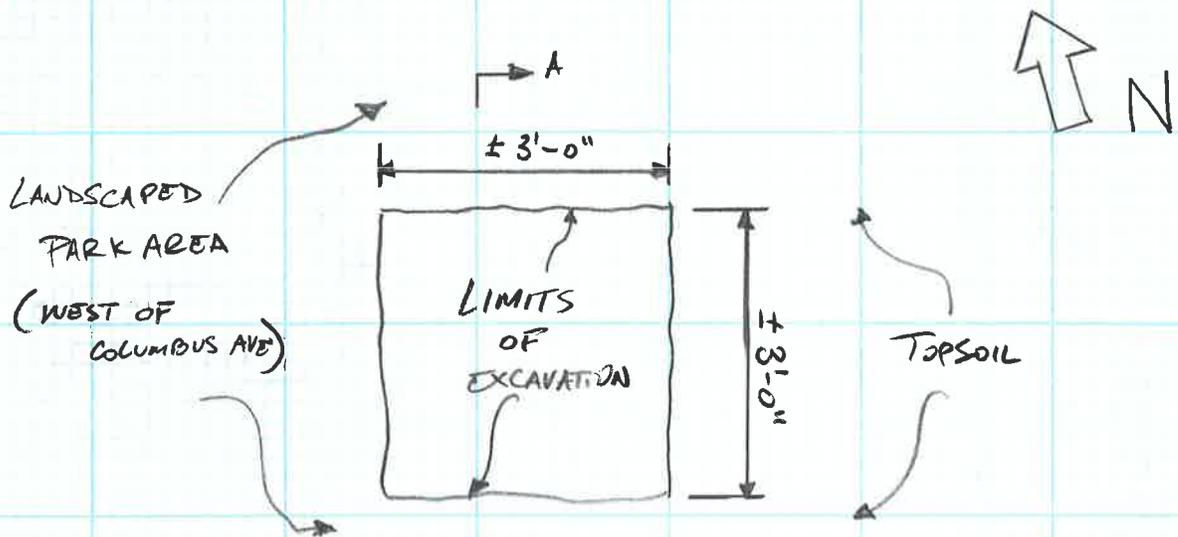
Brown m.f. SAND, various amounts of
silt, gravel, cobbles, brick and weathered
rock [UNCONTROLLED FILL]

SECTION A-A
SCALE: 1" = 2'-0"

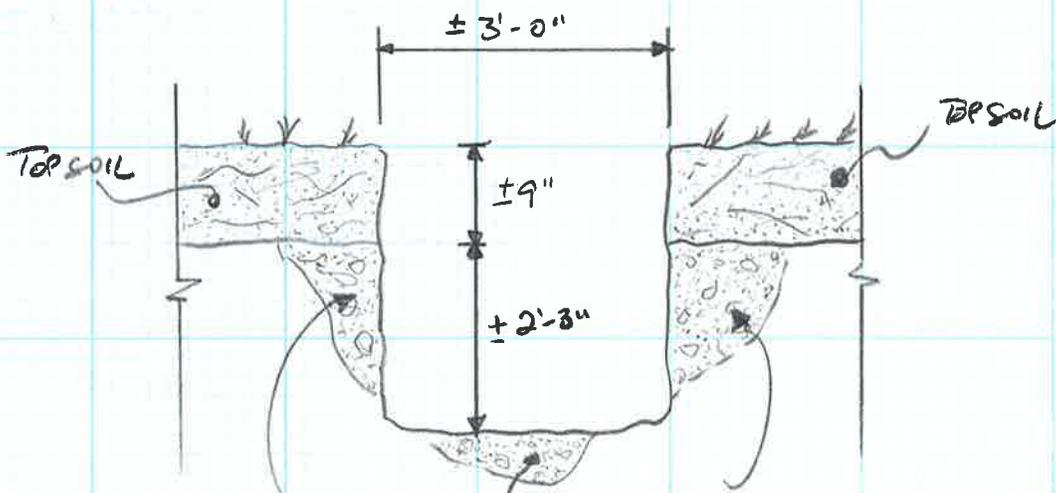
AMERICAN MUSEUM OF NATURAL HISTORY
LANDSCAPE TEST PIT, LTD-2

BY SAT DATE 3/29/17
CKD. DATE

PROJ. NO. 170132489
SHEET OF



PLAN VIEW
SCALE: 1" = 2'-0"



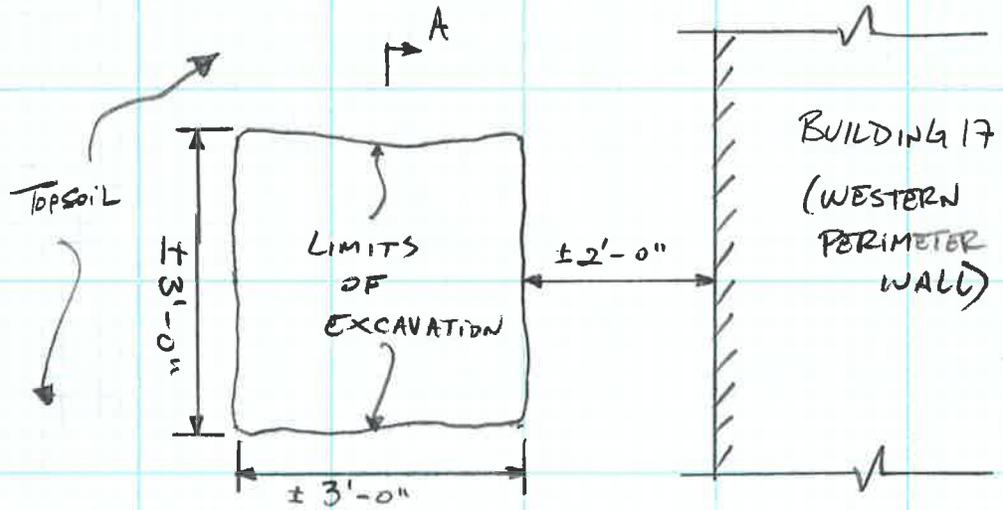
Brown m-f SAND, various amounts of silt, cobbles, brick and weathered rock [UNCONTROLLED FILL]

SECTION A-A
SCALE: 1" = 2'-0"

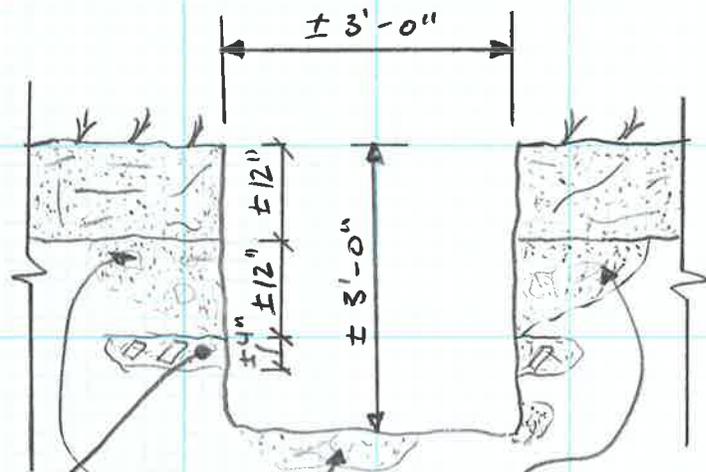
AMERICAN MUSEUM OF NATURAL HISTORY
LANDSCAPE TEST PIT, LTP-3

BY SAT DATE 3/29/17
CKD. DATE

PROJ. NO. 170132489
SHEET OF



PLAN VIEW
SCALE: 1" = 2'-0"

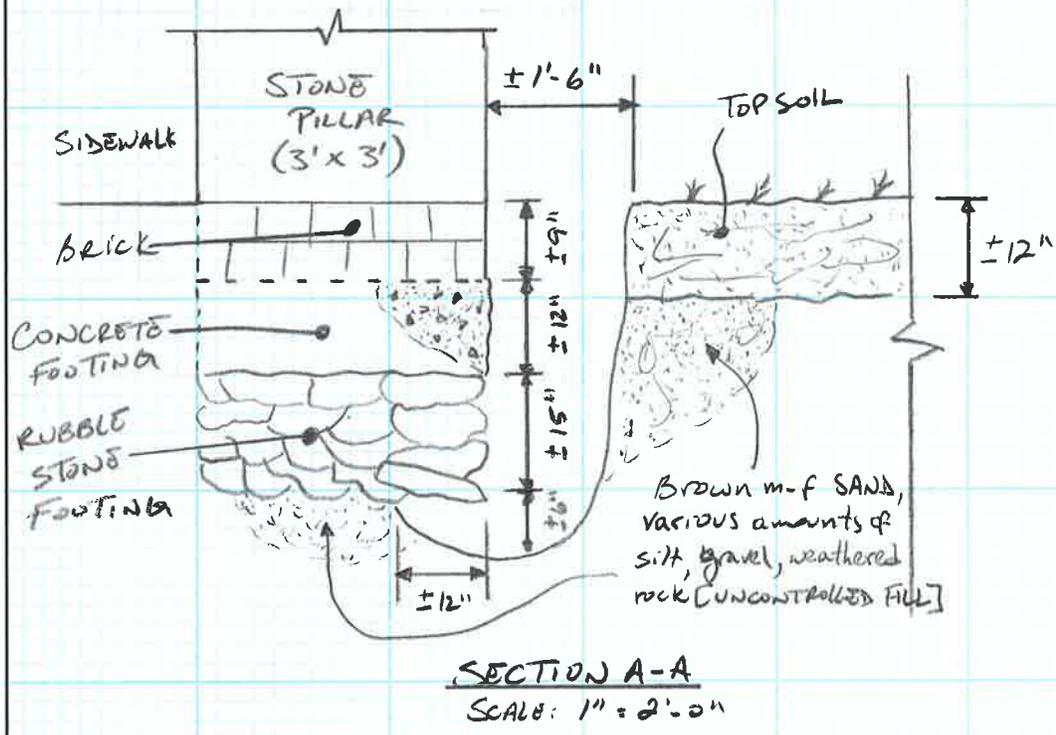
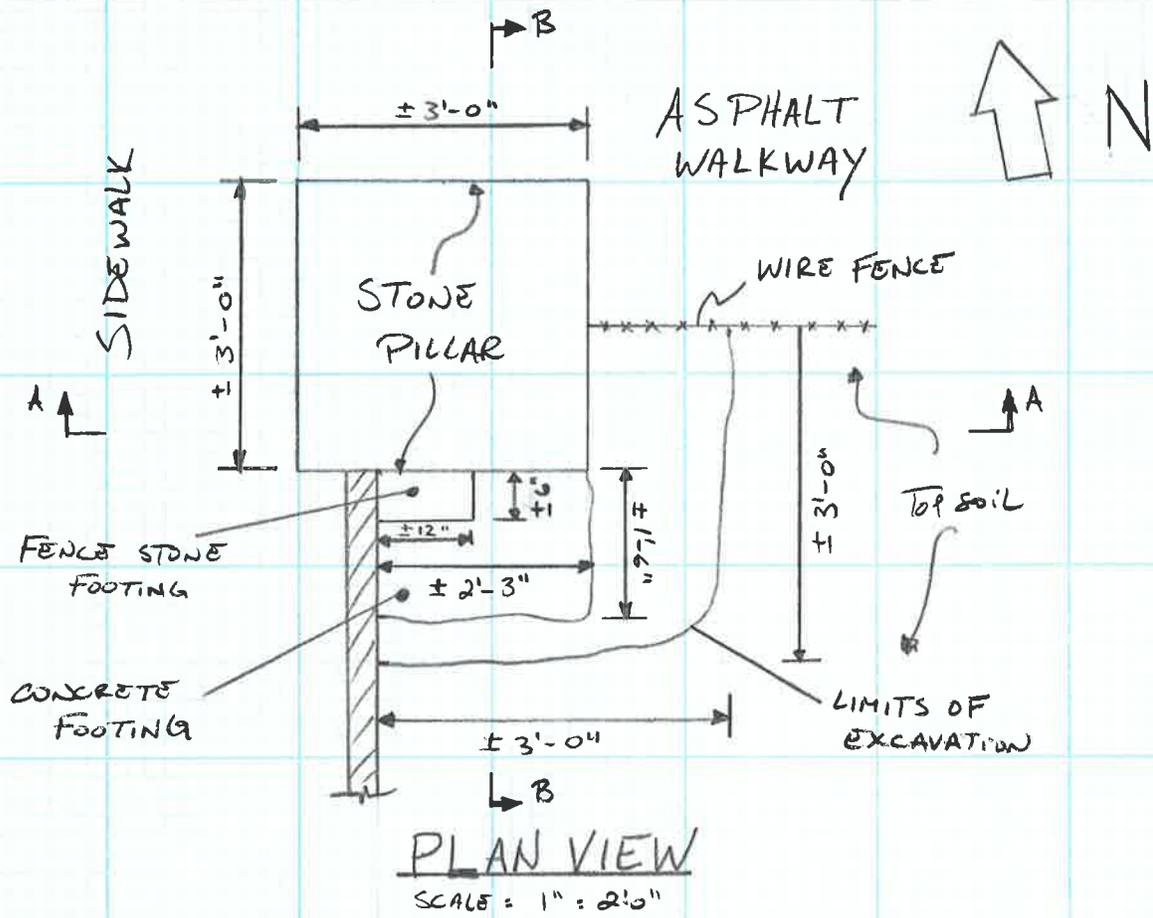


Reddish m-f SAND, some bricks [UNCONTROLLED FILL]

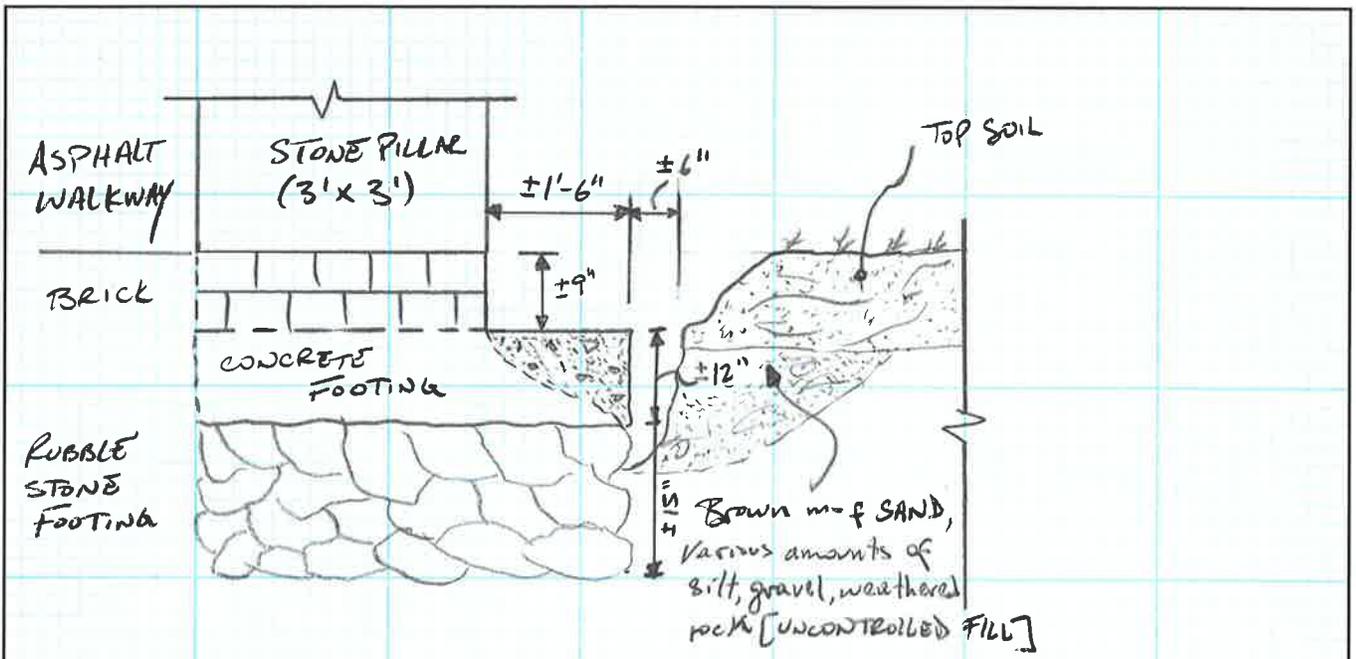
BROWN m-f SAND Various amounts of silt, gravel, and weathered rock [UNCONTROLLED FILL]

SECTION A-A
SCALE: 1" = 2'-0"

| | | | |
|------------------------------------|--------|--------------|----------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY | BY SAT | DATE 3/29/17 | PROJ. NO. 170132489 |
| LANDSCAPE TEST PIT, LTP-4 | CKD. | DATE | SHEET _____ OF _____ |



| | | |
|---|----------------------------------|---|
| AMERICAN MUSEUM OF NATURAL HISTORY LANDSCAPE TEST PIT, LTP-5 | BY SAT DATE 3/29/17 CKD. DATE | PROJ. NO. 170132489 SHEET _____ OF _____ |
|---|----------------------------------|---|



SECTION B-B

SCALE: 1" = 2'-0"

| | | |
|---|----------------------------------|---------------------------------|
| AMERICAN MUSEUM OF NATURAL HISTORY LANDSCAPE TEST PIT, LTP-5 | BY SAT DATE 3/29/17 CKD. DATE | PROJ. NO. 170132489 SHEET OF |
|---|----------------------------------|---------------------------------|

APPENDIX C
LABORATORY TEST RESULTS



| | | | | |
|------------|---------------------------------|--------------|-------------|-----------------|
| Client: | Langan Engineering | | Project No: | GTX-306182 |
| Project: | American Museum of Nat. History | | | |
| Location: | New York, NY | | | |
| Boring ID: | --- | Sample Type: | --- | Tested By: cam |
| Sample ID: | --- | Test Date: | 03/30/17 | Checked By: emm |
| Depth : | --- | Test Id: | 407116 | |

USCS Classification - ASTM D2487

| Boring ID | Sample ID | Depth | Group Name | Group Symbol | Gravel, % | Sand, % | Fines, % |
|------------|-----------|----------|-----------------|--------------|-----------|---------|----------|
| LB-01 (OW) | S-7 | 15-17 ft | Sandy Lean clay | CL | 14.8 | 21.7 | 63.5 |
| LB-5 | S-4 | 7-9 ft | Sandy Lean clay | CL | 4.7 | 27.2 | 68.1 |

Remarks: Grain Size analysis performed by ASTM D422 results enclosed
Atterberg Limits performed by ASTM D4318, results enclosed



| | | | | | |
|------------|---------------------------------|--------------|------------|-------------|-----|
| Client: | Langan Engineering | | | | |
| Project: | American Museum of Nat. History | | | | |
| Location: | New York, NY | Project No: | GTX-306182 | | |
| Boring ID: | --- | Sample Type: | --- | Tested By: | jbr |
| Sample ID: | --- | Test Date: | 03/27/17 | Checked By: | emm |
| Depth : | --- | Test Id: | 407120 | | |

Moisture Content of Soil and Rock - ASTM D2216

| Boring ID | Sample ID | Depth | Description | Moisture Content, % |
|------------|-----------|----------|--|---------------------|
| LB-01 (OW) | S- 7 | 15-17 ft | Moist, brownish gray sandy clay | 26.3 |
| LB-2 | S- 7 | 15-17 ft | Moist, dark grayish olive silty, clayey sand with gravel | 19.7 |
| LB-3 | S- 7B | 20-22 ft | Moist, yellowish brown sandy clay | 18.8 |
| LB-4 (OW) | S- 10 | 35-37 ft | Moist, brown sand with silt and gravel | 13.3 |
| LB-5 | S- 4 | 7-9 ft | Moist, grayish brown sandy clay | 23.3 |

Notes: Temperature of Drying : 110° Celsius



| | |
|-------------|---------------------------------|
| Client: | Langan Engineering |
| Project: | American Museum of Nat. History |
| Location: | New York, NY |
| GTX#: | 306182 |
| Test Date: | 3/28/217 |
| Tested By: | jbr |
| Checked By: | emm |

Laboratory Measurement of Soil Resistivity Using the Wenner Four-Electrode Method by ASTM G57 (Laboratory Measurement)

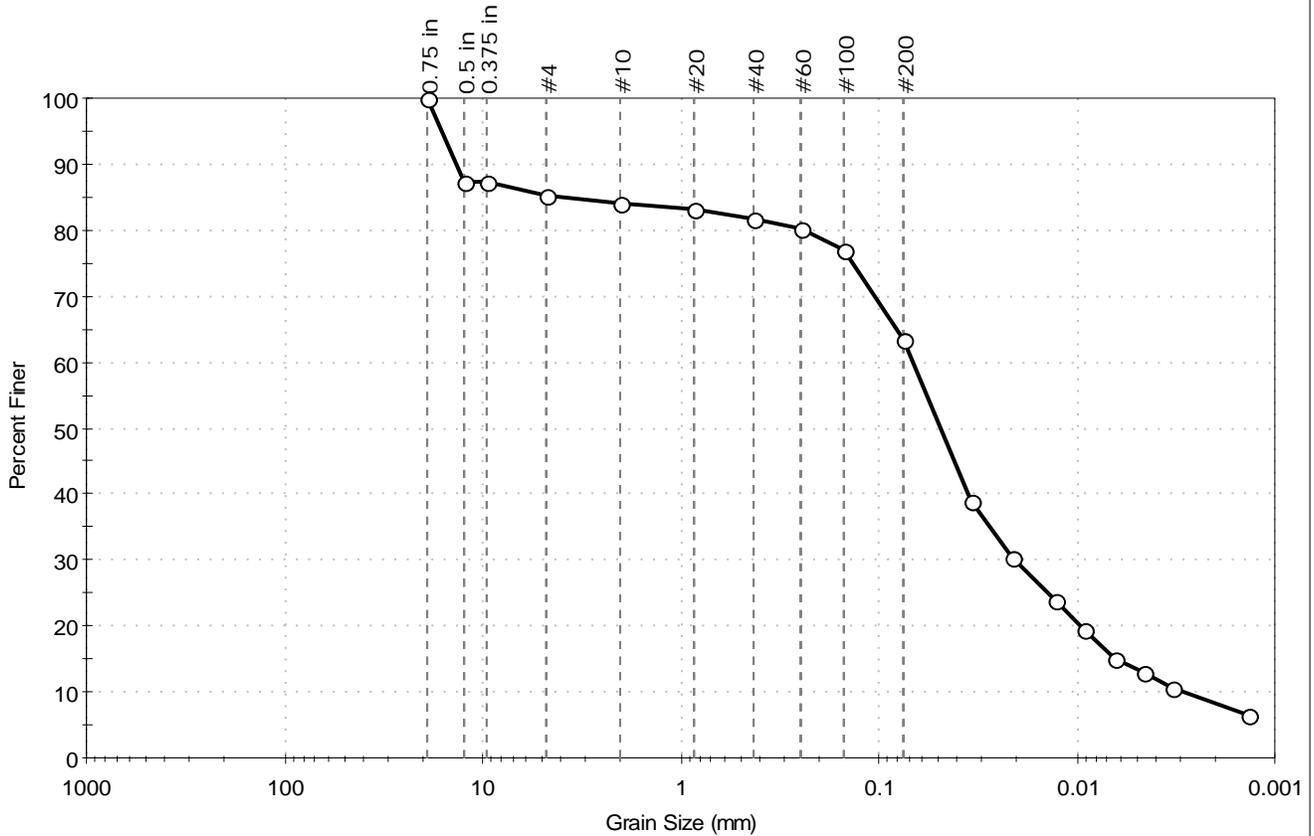
| Boring ID | Sample ID | Depth, ft. | Sample Description | Electrical Resistivity, ohm-cm | Electrical Conductivity, (ohm-cm) ⁻¹ |
|-----------|-----------|------------|-------------------------|--------------------------------|---|
| S-3 | LB-6 | 5-7 | Moist, brown silty clay | 3,822 | 2.62E-04 |

Notes: Test Equipment: Nilsson Model 400 Soil Resistance Meter, MC Miller Soil Box
Water added to sample to create a thick slurry prior to testing (saturated condition).
Electrical Conductivity is calculated as inverse of Electrical Resistivity (per ASTM G57)
Test conducted in standard laboratory atmosphere: 68-73 F



| | | | | | |
|------------|---------------------------------|---------------------|---------------------------------|-------------|--------|
| Client: | Langan Engineering | | Project No: | GTX-306182 | |
| Project: | American Museum of Nat. History | | Tested By: | jbr | |
| Location: | New York, NY | Sample Type: | jar | Checked By: | emm |
| Boring ID: | LB-01 (OW) | Test Date: | 03/28/17 | Test Id: | 407117 |
| Sample ID: | S-7 | Test Comment: | --- | | |
| Depth: | 15-17 ft | Visual Description: | Moist, brownish gray sandy clay | | |
| | | Sample Comment: | --- | | |

Particle Size Analysis - ASTM D422



| | | | |
|----------|----------|--------|--------------------|
| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
| --- | 14.8 | 21.7 | 63.5 |

| Sieve Name | Sieve Size, mm | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.75 in | 19.00 | 100 | | |
| 0.5 in | 12.50 | 87 | | |
| 0.375 in | 9.50 | 87 | | |
| #4 | 4.75 | 85 | | |
| #10 | 2.00 | 84 | | |
| #20 | 0.85 | 83 | | |
| #40 | 0.42 | 82 | | |
| #60 | 0.25 | 80 | | |
| #100 | 0.15 | 77 | | |
| #200 | 0.075 | 63 | | |
| --- | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| --- | 0.0341 | 39 | | |
| --- | 0.0213 | 30 | | |
| --- | 0.0128 | 24 | | |
| --- | 0.0091 | 19 | | |
| --- | 0.0065 | 15 | | |
| --- | 0.0046 | 13 | | |
| --- | 0.0033 | 11 | | |
| --- | 0.0014 | 6 | | |

Coefficients

| | |
|-----------------------------|-----------------------------|
| D ₈₅ = 4.1720 mm | D ₃₀ = 0.0208 mm |
| D ₆₀ = 0.0671 mm | D ₁₅ = 0.0064 mm |
| D ₅₀ = 0.0487 mm | D ₁₀ = 0.0029 mm |
| C _u = 23.138 | C _c = 2.223 |

Classification

ASTM Sandy Lean clay (CL)

AASHTO Silty Soils (A-4 (3))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

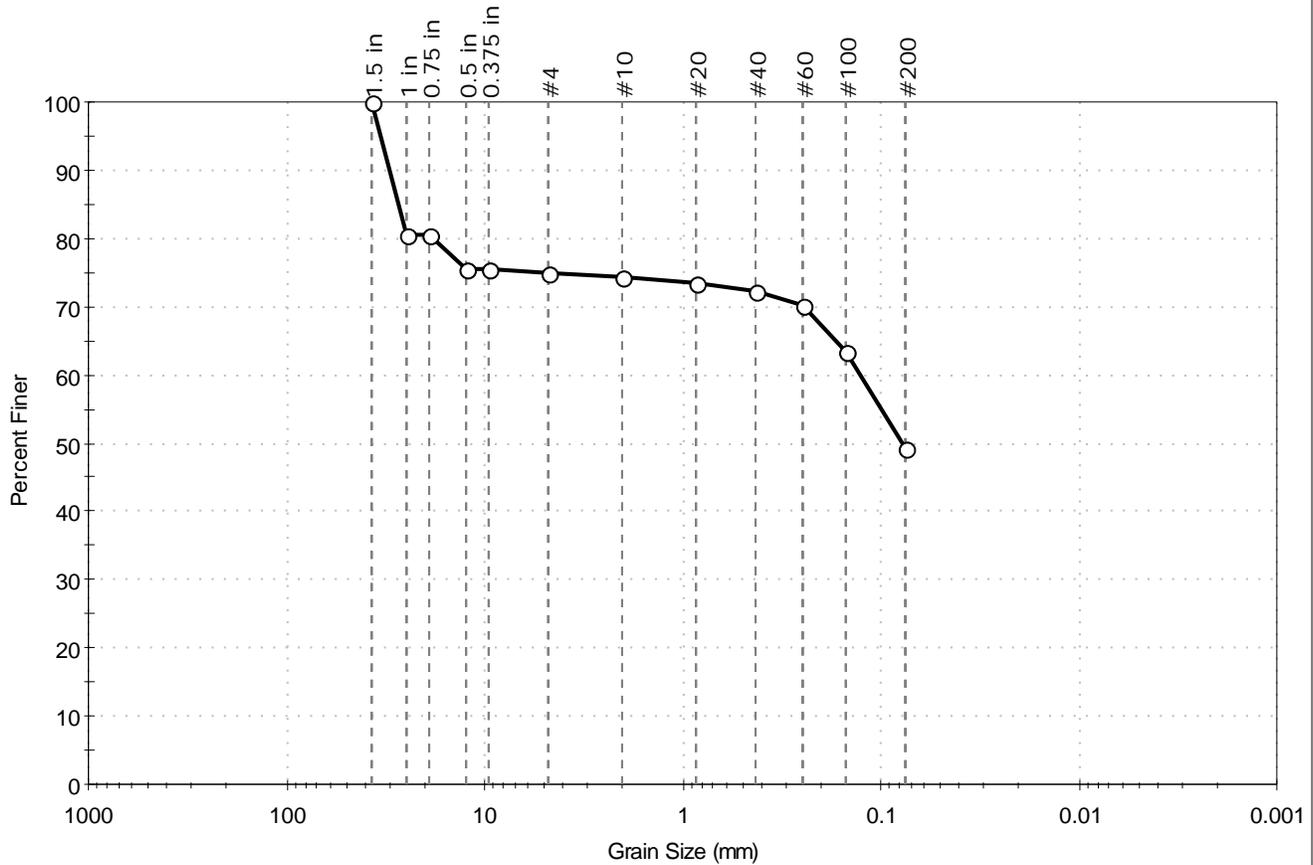
Specific Gravity : 2.65

Separation of Sample: #200 Sieve



| | | | |
|---------------------|--|--------------|------------|
| Client: | Langan Engineering | | |
| Project: | American Museum of Nat. History | | |
| Location: | New York, NY | Project No: | GTX-306182 |
| Boring ID: | LB-2 | Sample Type: | jar |
| Sample ID: | S-7 | Test Date: | 03/28/17 |
| Depth : | 15-17 ft | Checked By: | emm |
| | | Test Id: | 407126 |
| Test Comment: | --- | | |
| Visual Description: | Moist, dark grayish olive silty, clayey sand with gravel | | |
| Sample Comment: | --- | | |

Particle Size Analysis - ASTM D422



| | | | |
|----------|----------|--------|--------------------|
| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
| -- | 25.1 | 25.6 | 49.3 |

| Sieve Name | Sieve Size, mm | Percent Finer | Spec. Percent | Complies |
|------------|----------------|---------------|---------------|----------|
| 1.5 in | 37.50 | 100 | | |
| 1 in | 25.00 | 81 | | |
| 0.75 in | 19.00 | 81 | | |
| 0.5 in | 12.50 | 76 | | |
| 0.375 in | 9.50 | 76 | | |
| #4 | 4.75 | 75 | | |
| #10 | 2.00 | 74 | | |
| #20 | 0.85 | 74 | | |
| #40 | 0.42 | 72 | | |
| #60 | 0.25 | 70 | | |
| #100 | 0.15 | 64 | | |
| #200 | 0.075 | 49 | | |
| | | | | |
| | | | | |

| <u>Coefficients</u> | |
|------------------------------|-----------------------|
| D ₈₅ = 27.4304 mm | D ₃₀ = N/A |
| D ₆₀ = 0.1263 mm | D ₁₅ = N/A |
| D ₅₀ = 0.0776 mm | D ₁₀ = N/A |
| C _u = N/A | C _c = N/A |

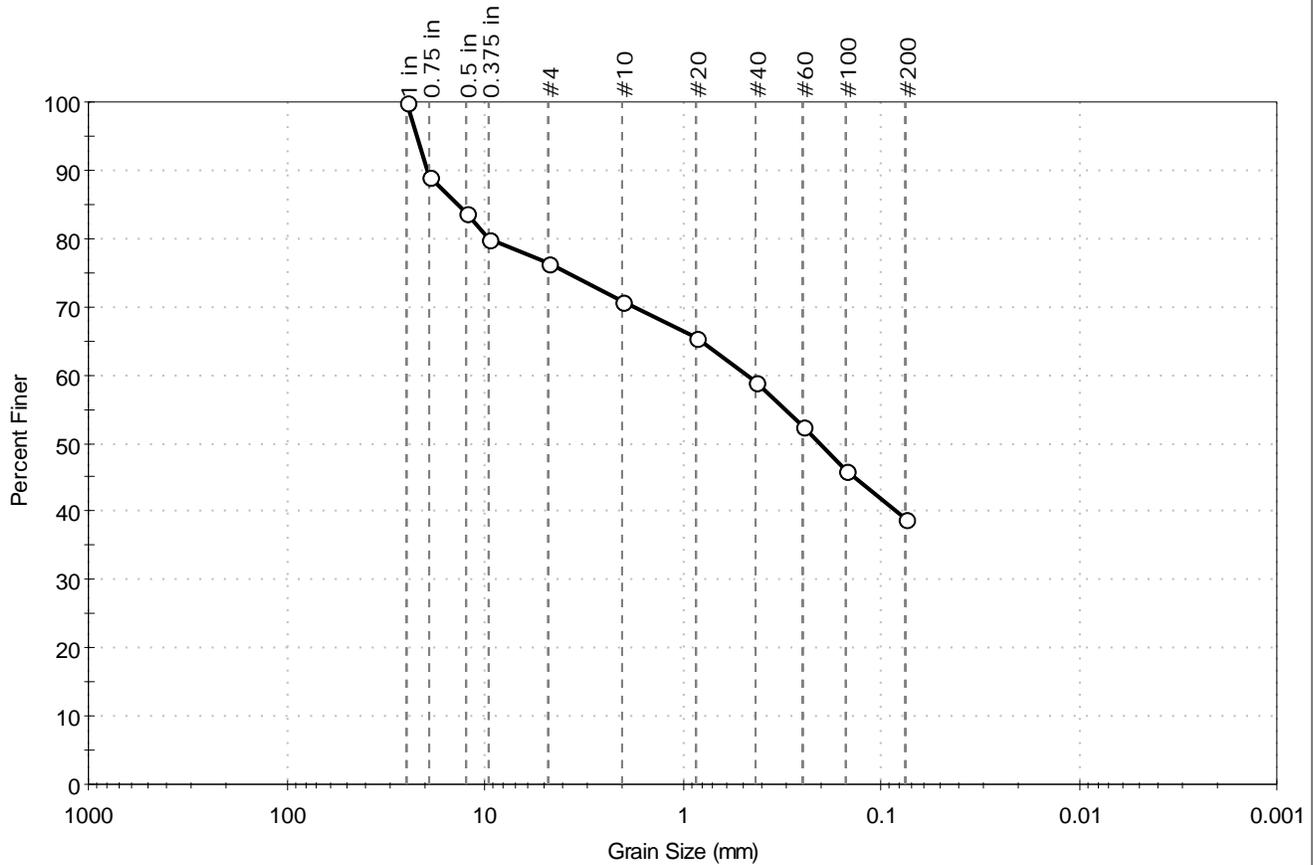
| <u>Classification</u> | |
|-----------------------|-----------------------|
| ASTM | N/A |
| AASHTO | Silty Soils (A-4 (0)) |

| <u>Sample/Test Description</u> |
|--------------------------------------|
| Sand/Gravel Particle Shape : ANGULAR |
| Sand/Gravel Hardness : HARD |



| | | | |
|---------------------|--|--------------|------------|
| Client: | Langan Engineering | | |
| Project: | American Museum of Nat. History | | |
| Location: | New York, NY | Project No: | GTX-306182 |
| Boring ID: | LB-2 | Sample Type: | jar |
| Sample ID: | S-10 | Test Date: | 03/28/17 |
| Depth : | 30-32 ft | Checked By: | emm |
| | | Test Id: | 407127 |
| Test Comment: | --- | | |
| Visual Description: | Moist, reddish brown clayey sand with gravel | | |
| Sample Comment: | --- | | |

Particle Size Analysis - ASTM D422



| | | | |
|----------|----------|--------|--------------------|
| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
| -- | 23.7 | 37.4 | 38.9 |

| Sieve Name | Sieve Size, mm | Percent Finer | Spec. Percent | Complies |
|------------|----------------|---------------|---------------|----------|
| 1 in | 25.00 | 100 | | |
| 0.75 in | 19.00 | 89 | | |
| 0.5 in | 12.50 | 84 | | |
| 0.375 in | 9.50 | 80 | | |
| # 4 | 4.75 | 76 | | |
| # 10 | 2.00 | 71 | | |
| # 20 | 0.85 | 65 | | |
| # 40 | 0.42 | 59 | | |
| # 60 | 0.25 | 52 | | |
| # 100 | 0.15 | 46 | | |
| # 200 | 0.075 | 39 | | |
| | | | | |
| | | | | |

| <u>Coefficients</u> | |
|------------------------------|-----------------------|
| D ₈₅ = 13.6907 mm | D ₃₀ = N/A |
| D ₆₀ = 0.4719 mm | D ₁₅ = N/A |
| D ₅₀ = 0.2064 mm | D ₁₀ = N/A |
| C _u = N/A | C _c = N/A |

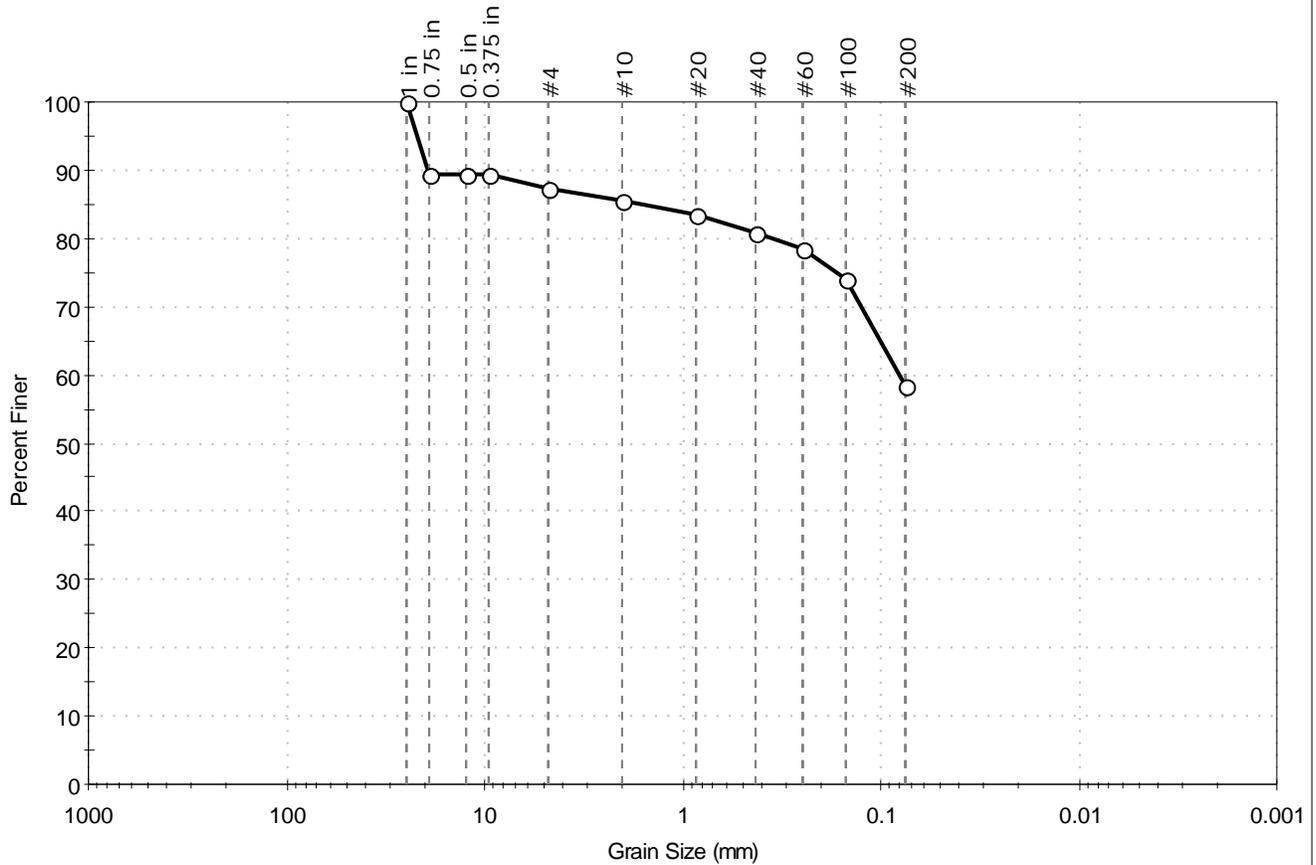
| <u>Classification</u> | |
|-----------------------|-----------------------|
| ASTM | N/A |
| AASHTO | Silty Soils (A-4 (0)) |

| <u>Sample/Test Description</u> |
|--------------------------------------|
| Sand/Gravel Particle Shape : ANGULAR |
| Sand/Gravel Hardness : HARD |



| | | | | | |
|---------------------|-----------------------------------|--------------|-------------|-------------|-----|
| Client: | Langan Engineering | | Project No: | GTX-306182 | |
| Project: | American Museum of Nat. History | | Boring ID: | LB-3 | |
| Location: | New York, NY | Sample Type: | jar | Tested By: | jbr |
| Sample ID: | S-7B | Test Date: | 03/28/17 | Checked By: | emm |
| Depth: | 20-22 ft | Test Id: | 407128 | | |
| Test Comment: | --- | | | | |
| Visual Description: | Moist, yellowish brown sandy clay | | | | |
| Sample Comment: | --- | | | | |

Particle Size Analysis - ASTM D422



| | | | |
|----------|----------|--------|--------------------|
| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
| -- | 12.6 | 29.1 | 58.3 |

| Sieve Name | Sieve Size, mm | Percent Finer | Spec. Percent | Complies |
|------------|----------------|---------------|---------------|----------|
| 1 in | 25.00 | 100 | | |
| 0.75 in | 19.00 | 89 | | |
| 0.5 in | 12.50 | 89 | | |
| 0.375 in | 9.50 | 89 | | |
| #4 | 4.75 | 87 | | |
| #10 | 2.00 | 86 | | |
| #20 | 0.85 | 83 | | |
| #40 | 0.42 | 81 | | |
| #60 | 0.25 | 78 | | |
| #100 | 0.15 | 74 | | |
| #200 | 0.075 | 58 | | |
| | | | | |
| | | | | |

| <u>Coefficients</u> | |
|-----------------------------|-----------------------|
| D ₈₅ = 1.5568 mm | D ₃₀ = N/A |
| D ₆₀ = 0.0808 mm | D ₁₅ = N/A |
| D ₅₀ = N/A | D ₁₀ = N/A |
| C _u = N/A | C _c = N/A |

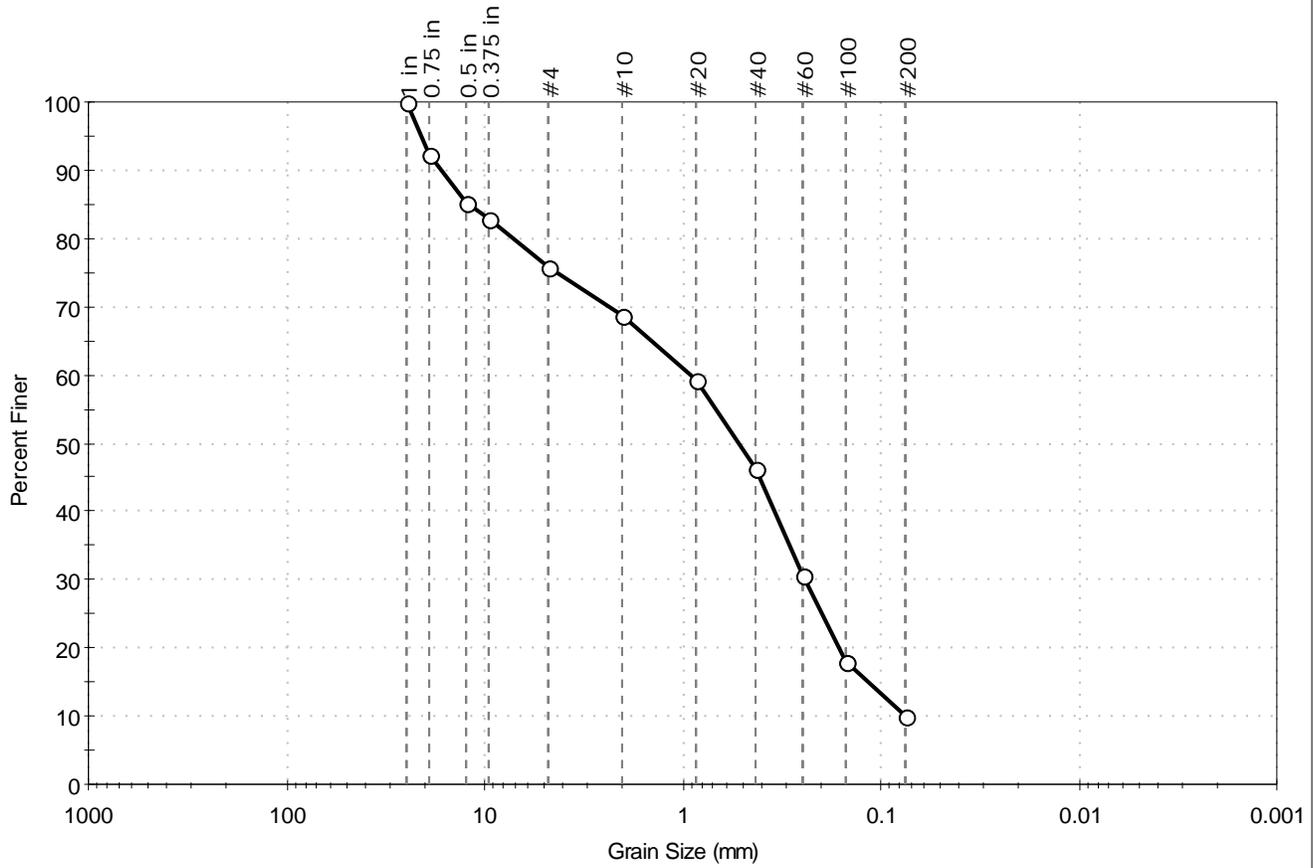
| <u>Classification</u> | |
|-----------------------|-----------------------|
| ASTM | N/A |
| AASHTO | Silty Soils (A-4 (0)) |

| <u>Sample/Test Description</u> |
|--------------------------------------|
| Sand/Gravel Particle Shape : ANGULAR |
| Sand/Gravel Hardness : HARD |



| | | | |
|---------------------|--|--------------|------------|
| Client: | Langan Engineering | | |
| Project: | American Museum of Nat. History | | |
| Location: | New York, NY | Project No: | GTX-306182 |
| Boring ID: | LB-4 (OW) | Sample Type: | jar |
| Sample ID: | S-10 | Test Date: | 03/28/17 |
| Depth : | 35-37 ft | Test Id: | 407129 |
| Test Comment: | --- | | |
| Visual Description: | Moist, brown sand with silt and gravel | | |
| Sample Comment: | --- | | |

Particle Size Analysis - ASTM D422



| | | | |
|----------|----------|--------|--------------------|
| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
| -- | 24.1 | 66.0 | 9.9 |

| Sieve Name | Sieve Size, mm | Percent Finer | Spec. Percent | Complies |
|------------|----------------|---------------|---------------|----------|
| 1 in | 25.00 | 100 | | |
| 0.75 in | 19.00 | 92 | | |
| 0.5 in | 12.50 | 85 | | |
| 0.375 in | 9.50 | 83 | | |
| # 4 | 4.75 | 76 | | |
| # 10 | 2.00 | 69 | | |
| # 20 | 0.85 | 59 | | |
| # 40 | 0.42 | 46 | | |
| # 60 | 0.25 | 31 | | |
| # 100 | 0.15 | 18 | | |
| # 200 | 0.075 | 9.9 | | |
| | | | | |
| | | | | |

| <u>Coefficients</u> | |
|------------------------------|-----------------------------|
| D ₈₅ = 12.0202 mm | D ₃₀ = 0.2440 mm |
| D ₆₀ = 0.9093 mm | D ₁₅ = 0.1169 mm |
| D ₅₀ = 0.5171 mm | D ₁₀ = 0.0755 mm |
| C _u = 12.044 | C _c = 0.867 |

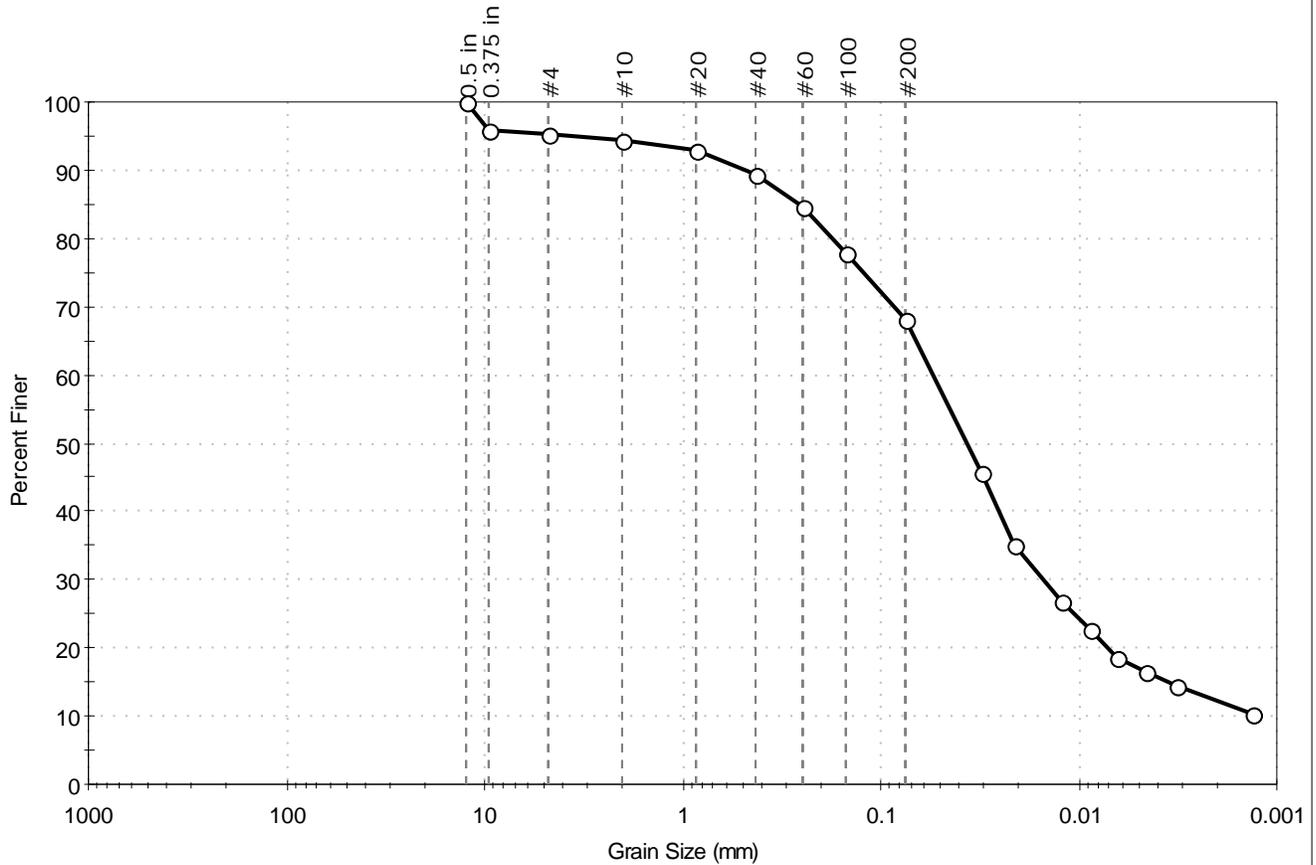
| <u>Classification</u> | |
|-----------------------|--|
| <u>ASTM</u> | N/A |
| <u>AASHTO</u> | Stone Fragments, Gravel and Sand (A-1-b (1)) |

Sample/Test Description
 Sand/Gravel Particle Shape : ANGULAR
 Sand/Gravel Hardness : HARD



| | | | |
|---|--|------------------------|------------------------|
| Client: Langan Engineering | Project: American Museum of Nat. History | Location: New York, NY | Project No: GTX-306182 |
| Boring ID: LB-5 | Sample Type: jar | Tested By: jbr | |
| Sample ID: S-4 | Test Date: 03/28/17 | Checked By: emm | |
| Depth: 7-9 ft | Test Id: 407118 | | |
| Test Comment: --- | | | |
| Visual Description: Moist, grayish brown sandy clay | | | |
| Sample Comment: --- | | | |

Particle Size Analysis - ASTM D422



| | | | |
|----------|----------|--------|--------------------|
| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
| -- | 4.7 | 27.2 | 68.1 |

| Sieve Name | Sieve Size, mm | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.5 in | 12.50 | 100 | | |
| 0.375 in | 9.50 | 96 | | |
| #4 | 4.75 | 95 | | |
| #10 | 2.00 | 94 | | |
| #20 | 0.85 | 93 | | |
| #40 | 0.42 | 89 | | |
| #60 | 0.25 | 85 | | |
| #100 | 0.15 | 78 | | |
| #200 | 0.075 | 68 | | |
| --- | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| --- | 0.0313 | 46 | | |
| --- | 0.0213 | 35 | | |
| --- | 0.0124 | 27 | | |
| --- | 0.0088 | 23 | | |
| --- | 0.0064 | 19 | | |
| --- | 0.0046 | 17 | | |
| --- | 0.0032 | 14 | | |
| --- | 0.0013 | 10 | | |

| Coefficients | |
|-----------------------------|-----------------------------|
| D ₈₅ = 0.2616 mm | D ₃₀ = 0.0151 mm |
| D ₆₀ = 0.0548 mm | D ₁₅ = 0.0036 mm |
| D ₅₀ = 0.0371 mm | D ₁₀ = N/A |
| C _u = N/A | C _c = N/A |

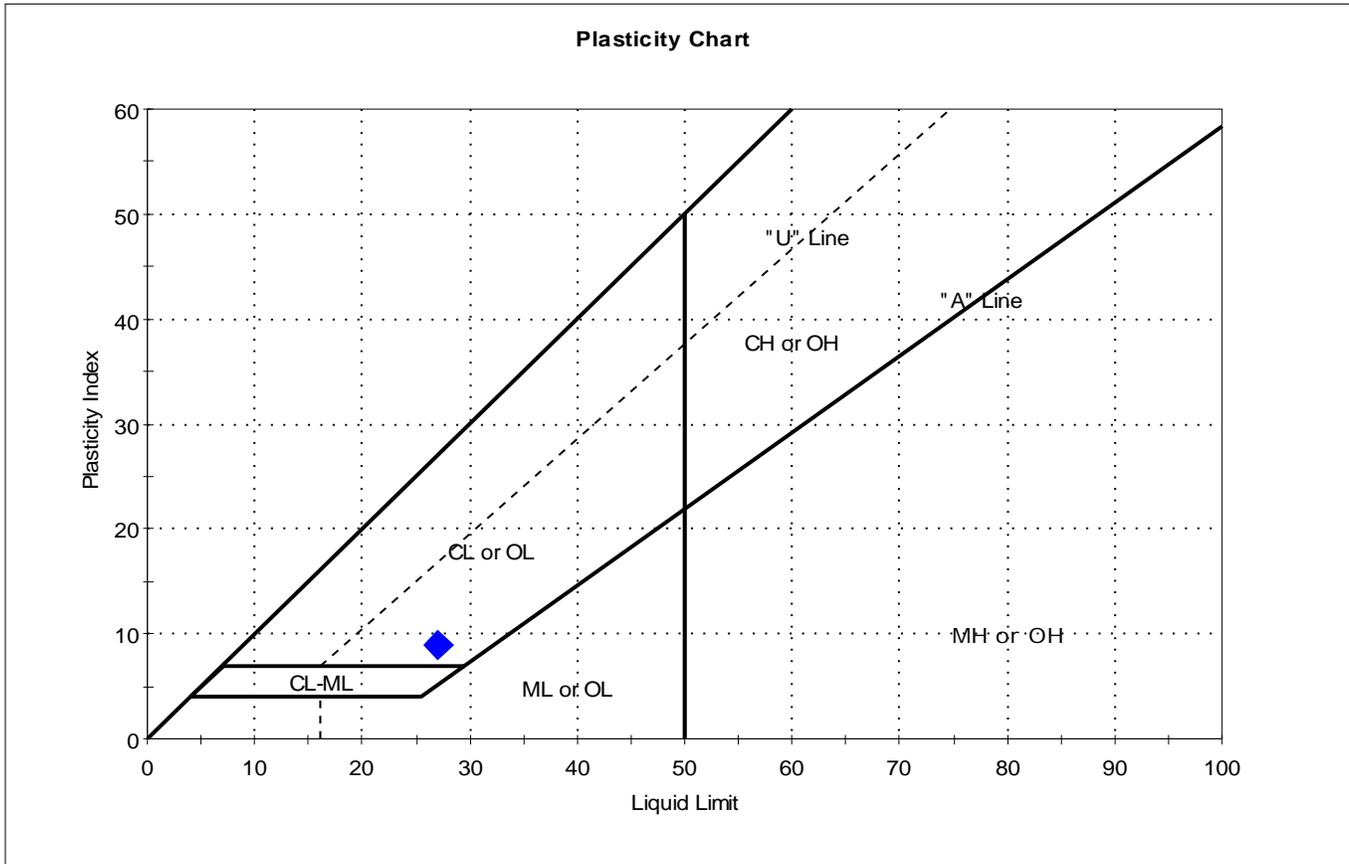
| Classification | |
|----------------|------------------------|
| ASTM | Sandy Lean clay (CL) |
| AASHTO | Clayey Soils (A-6 (8)) |

| Sample/Test Description |
|--|
| Sand/Gravel Particle Shape : ANGULAR |
| Sand/Gravel Hardness : HARD |
| Dispersion Device : Apparatus A - Mech Mixer |
| Dispersion Period : 1 minute |
| Specific Gravity : 2.65 |
| Separation of Sample: #200 Sieve |



| | | | | | |
|---------------------|---------------------------------|--------------|-------------|-------------|--------|
| Client: | Langan Engineering | | Project No: | GTX-306182 | |
| Project: | American Museum of Nat. History | | Tested By: | cam | |
| Location: | New York, NY | Sample Type: | jar | Checked By: | emm |
| Boring ID: | LB-01 (OW) | Test Date: | 03/30/17 | Test Id: | 407113 |
| Sample ID: | S-7 | | | | |
| Depth: | 15-17 ft | | | | |
| Test Comment: | --- | | | | |
| Visual Description: | Moist, brownish gray sandy clay | | | | |
| Sample Comment: | --- | | | | |

Atterberg Limits - ASTM D4318



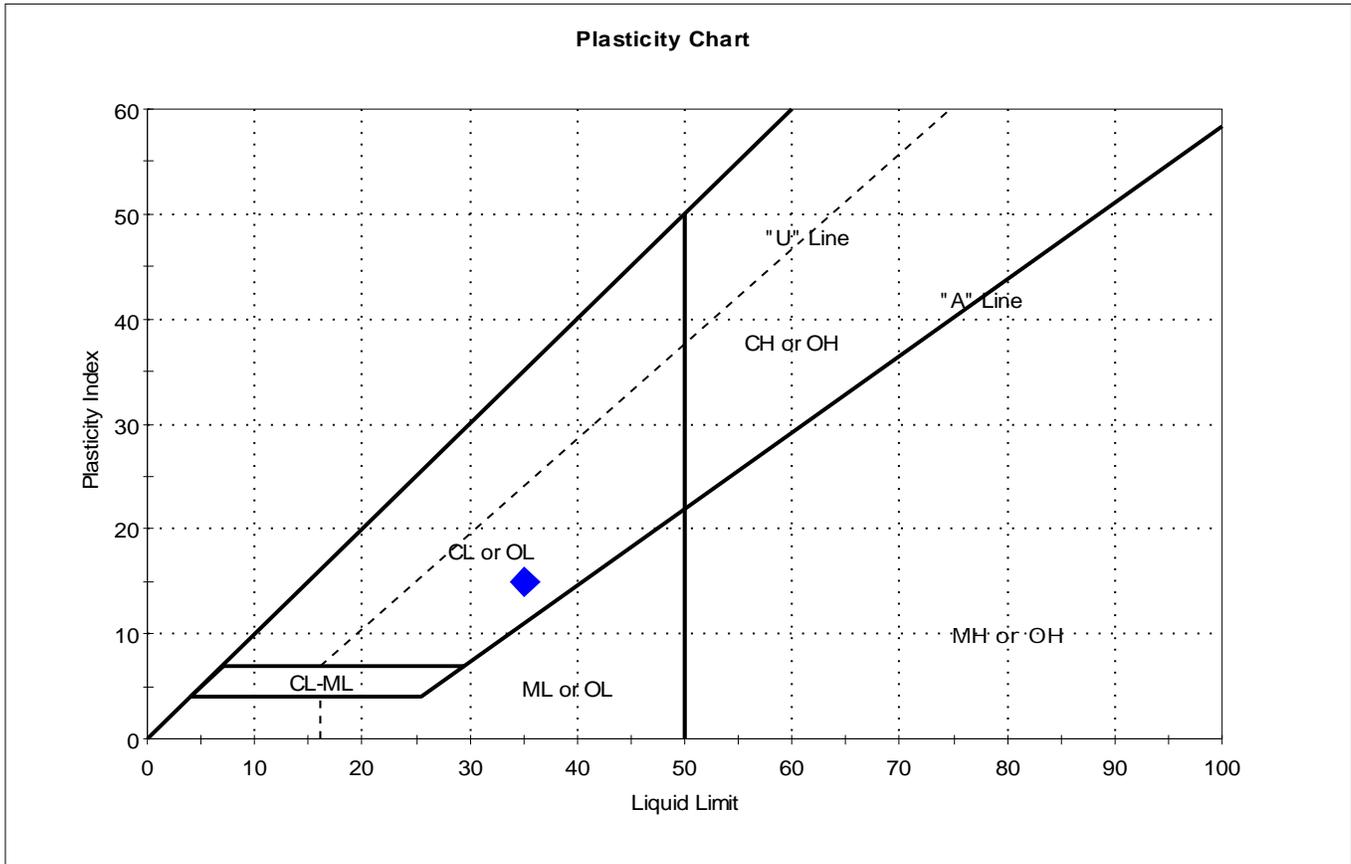
| Symbol | Sample ID | Boring | Depth | Natural Moisture Content, % | Liquid Limit | Plastic Limit | Plasticity Index | Liquidity Index | Soil Classification |
|--------|-----------|------------|----------|-----------------------------|--------------|---------------|------------------|-----------------|----------------------|
| ◆ | S-7 | LB-01 (OW) | 15-17 ft | 26 | 27 | 18 | 9 | 0.9 | Sandy Lean clay (CL) |

Sample Prepared using the WET method
 18% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



| | | | | | |
|---------------------|---------------------------------|--------------|-------------|-------------|--------|
| Client: | Langan Engineering | | Project No: | GTX-306182 | |
| Project: | American Museum of Nat. History | | Tested By: | cam | |
| Location: | New York, NY | Sample Type: | jar | Checked By: | emm |
| Boring ID: | LB-5 | Test Date: | 03/30/17 | Test Id: | 407114 |
| Sample ID: | S-4 | | | | |
| Depth : | 7-9 ft | | | | |
| Test Comment: | --- | | | | |
| Visual Description: | Moist, grayish brown sandy clay | | | | |
| Sample Comment: | --- | | | | |

Atterberg Limits - ASTM D4318



| Symbol | Sample ID | Boring | Depth | Natural Moisture Content, % | Liquid Limit | Plastic Limit | Plasticity Index | Liquidity Index | Soil Classification |
|--------|-----------|--------|--------|-----------------------------|--------------|---------------|------------------|-----------------|----------------------|
| ◆ | S-4 | LB-5 | 7-9 ft | 23 | 35 | 20 | 15 | 0.2 | Sandy Lean clay (CL) |

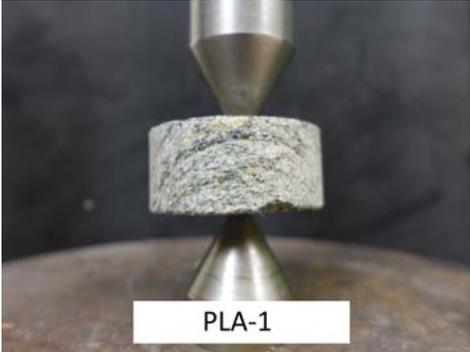
Sample Prepared using the WET method
 11% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



| | | |
|--|------------------------|-----------------|
| Client: Langan Engineering | Project No: GTX-306182 | |
| Project: American Museum of Nat. History | Tested By: smd | |
| Location: New York, NY | Sample Type: cylinder | Checked By: jsc |
| Boring ID: LB-7 (OW) | Test Date: 03/31/17 | Test Id: 407322 |
| Sample ID: C-1 | | |
| Depth : 11-16 ft | | |
| Test Comment: --- | | |
| Visual Description: --- | | |
| Sample Comment: --- | | |

Axial Point Load Strength Index of Rock by ASTM D5731

| Test No. | Specimen Depth | Diameter, in | Thickness, in | Failure Load (P), lb | De, sq in | De, in | Is, psi | F | Is(50mm) psi | Generalized Correction Factor, K | Estimated Compressive Strength, psi |
|----------|----------------|--------------|---------------|----------------------|-----------|--------|---------|-------|--------------|----------------------------------|-------------------------------------|
| PLA-1 | 11-16 ft | 1.98 | 0.90 | 226 | 2.27 | 1.51 | 100 | 0.887 | 88 | 18 | 1,790 |

| | | |
|---|---|--------------------------------|
|  <p>PLA-1</p> <p>Before</p> |  <p>PLA-1</p> <p>After</p> | <p>Intact Material Failure</p> |
|---|---|--------------------------------|

Notes: Generalized correction factor, K, used to estimate the compressive strength based on the specimen depth and ASTM D5731 Table 1.

The reported thickness (L) is the average of three measurements.

The reported diameter(D) is the average of three measurements.

De = the equivalent core diameter

Is = the uncorrected point load strength index

F = the size correction factor

Is(50) = the size corrected point load strength index



| | | | |
|---------------------|---------------------------------|--------------|------------|
| Client: | Langan Engineering | | |
| Project: | American Museum of Nat. History | | |
| Location: | New York, NY | Project No: | GTX-306182 |
| Boring ID: | LB-01 (OW) | Sample Type: | --- |
| Sample ID: | C-1 | Test Date: | 03/27/17 |
| Depth : | 37-42 ft | Test Id: | 407130 |
| Test Comment: | --- | | |
| Visual Description: | See photograph(s) | | |
| Sample Comment: | --- | | |

**Bulk Density and Compressive Strength
of Rock Core Specimens by ASTM D7012 Method C**

| Boring ID | Sample Number | Depth | Bulk Density, pcf | Compressive strength, psi | Failure Type | Meets ASTM D4543 | Note(s) |
|------------|---------------|----------|-------------------|---------------------------|--------------|------------------|---------|
| LB-01 (OW) | C-1 | 37-42 ft | 168 | 11799 | 1 | Yes | --- |

Notes: Density determined on core samples by measuring dimensions and weight and then calculating.
 All specimens tested at the approximate as-received moisture content and at standard laboratory temperature.
 The axial load was applied continuously at a stress rate that produced failure in a test time between 2 and 15 minutes.
 Failure Type: 1 = Intact Material Failure; 2 = Discontinuity Failure; 3 = Intact Material and Discontinuity Failure
 (See attached photographs)



| | | | |
|---------------------|---------------------------------|-------------|-----------|
| Client: | Langan Engineering | Test Date: | 3/27/2017 |
| Project Name: | American Museum of Nat. History | Tested By: | rlc |
| Project Location: | New York, NY | Checked By: | jsc |
| GTX #: | 306182 | | |
| Boring ID: | LB-01 (OW) | | |
| Sample ID: | C-1 | | |
| Depth: | 37-42 ft | | |
| Visual Description: | See photographs | | |

UNIT WEIGHT DETERMINATION AND DIMENSIONAL AND SHAPE TOLERANCES OF ROCK CORE SPECIMENS BY ASTM D4543

| | | | | | | | |
|------------------------------------|--------|--|------------|---|--|--|--|
| BULK DENSITY | | | | DEVIATION FROM STRAIGHTNESS (Procedure S1) | | | |
| | 1 | 2 | Average | Maximum gap between side of core and reference surface plate: Is the maximum gap \leq 0.02 in.? YES | | | |
| Specimen Length, in: | 4.17 | 4.17 | 4.17 | Maximum difference must be $<$ 0.020 in. Straightness Tolerance Met? YES | | | |
| Specimen Diameter, in: | 1.98 | 1.98 | 1.98 | | | | |
| Specimen Mass, g: | 567.74 | | | | | | |
| Bulk Density, lb/ft ³ : | 168 | | | | | | |
| Length to Diameter Ratio: | 2.1 | | | | | | |
| | | Minimum Diameter Tolerance Met? | YES | | | | |
| | | Length to Diameter Ratio Tolerance Met? | YES | | | | |

| | | | | | | | | | | | | | | | |
|---|--|----------|----------|----------|----------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|
| END FLATNESS AND PARALLELISM (Procedure FP1) | | | | | | | | | | | | | | | |
| END 1 | -0.875 | -0.750 | -0.625 | -0.500 | -0.375 | -0.250 | -0.125 | 0.000 | 0.125 | 0.250 | 0.375 | 0.500 | 0.625 | 0.750 | 0.875 |
| Diameter 1, in | -0.00010 | -0.00020 | -0.00010 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | -0.00010 | -0.00020 |
| Diameter 2, in (rotated 90°) | -0.00020 | -0.00020 | -0.00010 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | -0.00010 | -0.00010 | -0.00010 |
| | Difference between max and min readings, in: 0° = 0.00020 90° = 0.00020 | | | | | | | | | | | | | | |
| END 2 | -0.875 | -0.750 | -0.625 | -0.500 | -0.375 | -0.250 | -0.125 | 0.000 | 0.125 | 0.250 | 0.375 | 0.500 | 0.625 | 0.750 | 0.875 |
| Diameter 1, in | -0.00020 | -0.00020 | -0.00010 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | -0.00010 | -0.00010 |
| Diameter 2, in (rotated 90°) | 0.00000 | -0.00010 | -0.00010 | -0.00010 | -0.00010 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | -0.00010 | -0.00020 |
| | Difference between max and min readings, in: 0° = 0.0002 90° = 0.0002 Maximum difference must be $<$ 0.0020 in. Difference = \pm 0.00010 Flatness Tolerance Met? YES | | | | | | | | | | | | | | |

| | | |
|--|--|---|
| | | <p>DIAMETER 1</p> <p>End 1: Slope of Best Fit Line: 0.00001 Angle of Best Fit Line: 0.00057</p> <p>End 2: Slope of Best Fit Line: 0.00005 Angle of Best Fit Line: 0.00286</p> <p>Maximum Angular Difference: 0.00229</p> <p>Parallelism Tolerance Met? YES Spherically Seated</p> |
| | | |

| | | | | | | | |
|--|---------------------------------------|----------------|---------|--------|---------------------------------|---|--|
| PERPENDICULARITY (Procedure P1) (Calculated from End Flatness and Parallelism measurements above) | | | | | | <i>Maximum angle of departure must be \leq 0.25°</i> | |
| END 1 | Difference, Maximum and Minimum (in.) | Diameter (in.) | Slope | Angle° | Perpendicularity Tolerance Met? | | |
| Diameter 1, in | 0.00020 | 1.980 | 0.00010 | 0.006 | YES | | |
| Diameter 2, in (rotated 90°) | 0.00020 | 1.980 | 0.00010 | 0.006 | YES | Perpendicularity Tolerance Met? YES | |
| END 2 | | | | | | | |
| Diameter 1, in | 0.00020 | 1.980 | 0.00010 | 0.006 | YES | | |
| Diameter 2, in (rotated 90°) | 0.00020 | 1.980 | 0.00010 | 0.006 | YES | | |

| | |
|-------------------|---------------------------------|
| Client: | Langan Engineering |
| Project Name: | American Museum of Nat. History |
| Project Location: | New York, NY |
| GTX #: | 306182 |
| Test Date: | 3/27/2017 |
| Tested By: | rlc |
| Checked By: | jsc |
| Boring ID: | LB-01 (OW) |
| Sample ID: | C-1 |
| Depth, ft: | 37-42 |



After cutting and grinding



After break



| | |
|-------------|---------------------------------|
| Client: | Langan Engineering |
| Project: | American Museum of Nat. History |
| Location: | New York, NY |
| GTX#: | 306182 |
| Test Date: | 04/03/17 |
| Tested By: | jbr |
| Checked By: | emm |

Laboratory Measurement of Soil Resistivity Using
the Wenner Four-Electrode Method by ASTM G57
(Laboratory Measurement)

| Boring ID | Sample ID | Depth, ft. | Sample Description | Electrical Resistivity, ohm-cm | Electrical Conductivity, (ohm-cm) ⁻¹ |
|-----------|-----------|------------|--------------------|--------------------------------|---|
| LB-6 | S-4 | 7-9 | Moist, brown clay | 1,136 | 8.80E-04 |

Notes: Test Equipment: Nilsson Model 400 Soil Resistance Meter, MC Miller Soil Box
Water added to sample to create a thick slurry prior to testing (saturated condition).
Electrical Conductivity is calculated as inverse of Electrical Resistivity (per ASTM G57)
Test conducted in standard laboratory atmosphere: 68-73 F

APPENDIX B
GEOPHYSICAL SURVEY REPORT

American Museum of Natural History
Central Park West & 79th St.
New York, NY 10024

Table of Contents

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| <i>II. Equipment Capabilities</i> | pages 3-4 |
| <i>III. Description</i> | page 5 |
| <i>IV. Job Site Sketches</i> | pages 6-12 |

Overview

Job Date: March 23, 2017

Job Site: **American Museum of Natural History**
Central Park West & 79th St.
New York, NY 10024

Client: AKRF, Inc.
440 Park Ave. South
New York, NY 10016

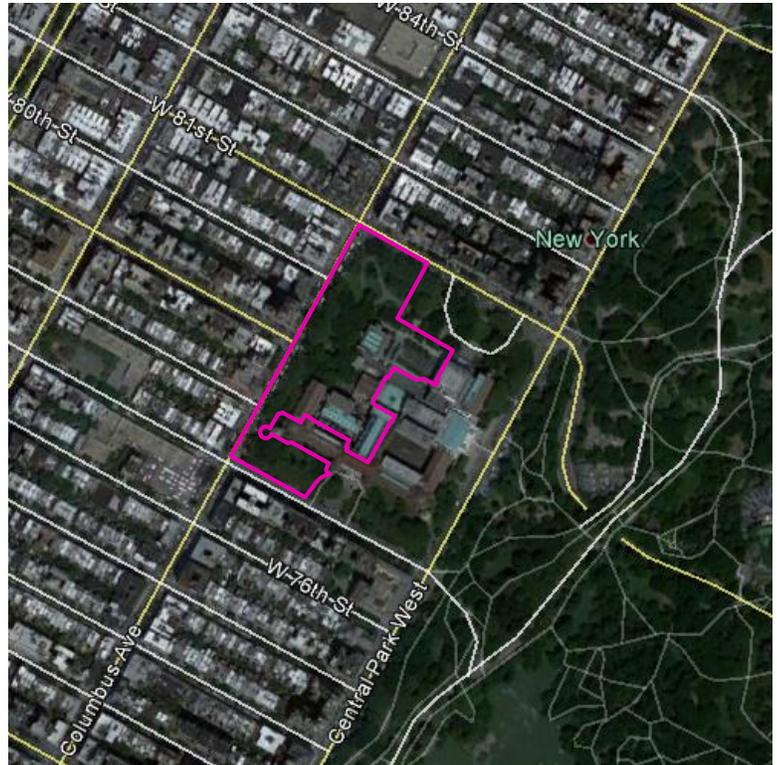


fig. 1 – job site location. work area outlined in pink. imagery © Google.

On Point personnel on site:

- Steven Strahmann
- Steven Guzman

Equipment on site:

- Utility locator: Vivax-Metrotech VM810
- Utility locator: Radiodetection RD8000 PDL / Tx-10b
- Ground-penetrating radar: GSSI UtilityScan DF 800/300 MHz
- Ground-penetrating radar: GSSI UtilityScan 400 MHz

Equipment Capabilities

Radio-Frequency Locating

- Principle of operation:
 - Radio-frequency (RF) locating uses a radio receiver, typically handheld, to detect a radio signal from a buried utility.
 - The radio signal may be passively produced by the utility in the course of its normal function (signaling lines, alternating current, etc.) or introduced into the utility line by a radio transmitter.

- Typical applications:
 - Conductive utilities
 - Steel or copper pipes (water service, gas service)
 - Copper telecommunications cables
 - Tracer lines on non-conductive utilities

- Limitations:
 - RF locating requires a conductive object (pipe, cable, conduit, or tracer) into which a radio signal can be introduced. The signal cannot travel through non-conductive (insulating) materials. The signal may be interrupted or lost on a conductive utility that is not continuous (damaged, broken, corroded, repaired with non-conductive materials, or constructed of segments with non-conductive gaskets, i.e. rubber)
 - RF locating requires some level of access or prior knowledge to effectively introduce the radio signal.
 - An exposed portion (or end) of the utility is needed for direct connection, or inductive clamp.
or
 - A point of well-known location and direction is needed for an inductive drop.
 - RF locating signals are susceptible to “bleeding” onto nearby conductive utilities. Due care will be taken to recognize and minimize bleed-off, and to confirm utility locations with alternate methods. All utility marks should be afforded an industry-standard tolerance zone of 24” to either side.
 - A known (or visible) point of connection is generally needed to identify the function of a utility.
 - A hand-dug or vacuum-excavated test hole should be used to precisely confirm horizontal or vertical location of any utility.

Equipment Capabilities

Ground–Penetrating Radar

- Principle of operation:
 - Ground-penetrating radar (GPR) uses a pair of radio antennas (transmitting and receiving), moved together across the ground surface. The transmitted radar wave penetrates into the ground until it reaches an “interface,” or boundary, between materials of differing electrical properties. The wave is then reflected and detected by the receiving antenna.
- Typical applications:
 - Non-conductive utilities
 - Plastic pipes, gas and water main/service, etc.
 - Bituminous fiber pipe (“Orangeburg,” “Bermico”), asbestos-cement pipe (“Transite”)
 - Cast iron pipe with rubber gaskets, or other insulating material
 - Subsurface structures
 - Buried tanks, cisterns, septic tanks, cesspools, dry wells, oil-water separators
 - Buried vaults, manholes, utility tunnels
 - Historical building foundations and other structures
 - Soil characteristics
 - Void spaces, sinkholes
 - Past excavations and disturbed soil
- Limitations:
 - For an object to produce a signal that is able to be interpreted by operators, the transmitted radar wave must penetrate to the depth of the object of interest, reflect, and return to the receiving antenna.
 - Depth of penetration is reduced by soils that are electrically conductive, due to water saturation or otherwise. Depth of penetration is reduced by especially rocky, mixed, or inconsistent soil. A metallic ground surface (i.e. steel plate), or standing water, interferes with penetration of transmitted signal into the soil.
 - A reflection of the radar signal depends on an “interface,” or boundary, of materials of differing electrical properties—such as that encountered at boundaries between soil layers of differing compaction, or at the surface of a hard object embedded in the soil. The reflection is weakened when the boundary has a lower contrast in electrical properties.
 - An object of a given diameter will produce a reflection of decreasing strength with increasing depth of cover. Generally, one inch of diameter is required, per foot of cover, to produce a strong reflection.
 - A known (or visible) point of connection is generally needed to identify the function of a utility.
 - Any utility, subsurface structure, or anomaly located with GPR and marked on site should be afforded an industry-standard tolerance zone of 24”.
 - A hand-dug or vacuum-excavated test hole should be used to precisely confirm horizontal or vertical location of any utility.

Description

On Point personnel worked on site to locate and mark consumer-owned utilities, and to clear proposed bore locations in the indicated work area. Methods used include both radio-frequency (RF) locating and ground-penetrating radar (GPR). Utilities located and marked include electric power, gas, steam, potable water, storm drainage, and unidentified utilities. A total of 10 bore locations were cleared. No utilities or anomalies were detected in the vicinity of bore locations SB-1, SB-7, and SB-9. Locations of utilities in the vicinity of the remaining bore locations are shown on the attached *Job Site Sketches*. Sketches are notated where bore locations in the field differed from those on drawings provided by AKRF, or where an alternate bore location was provided.

IV. Job Site Sketches

OVERVIEW

LEGEND



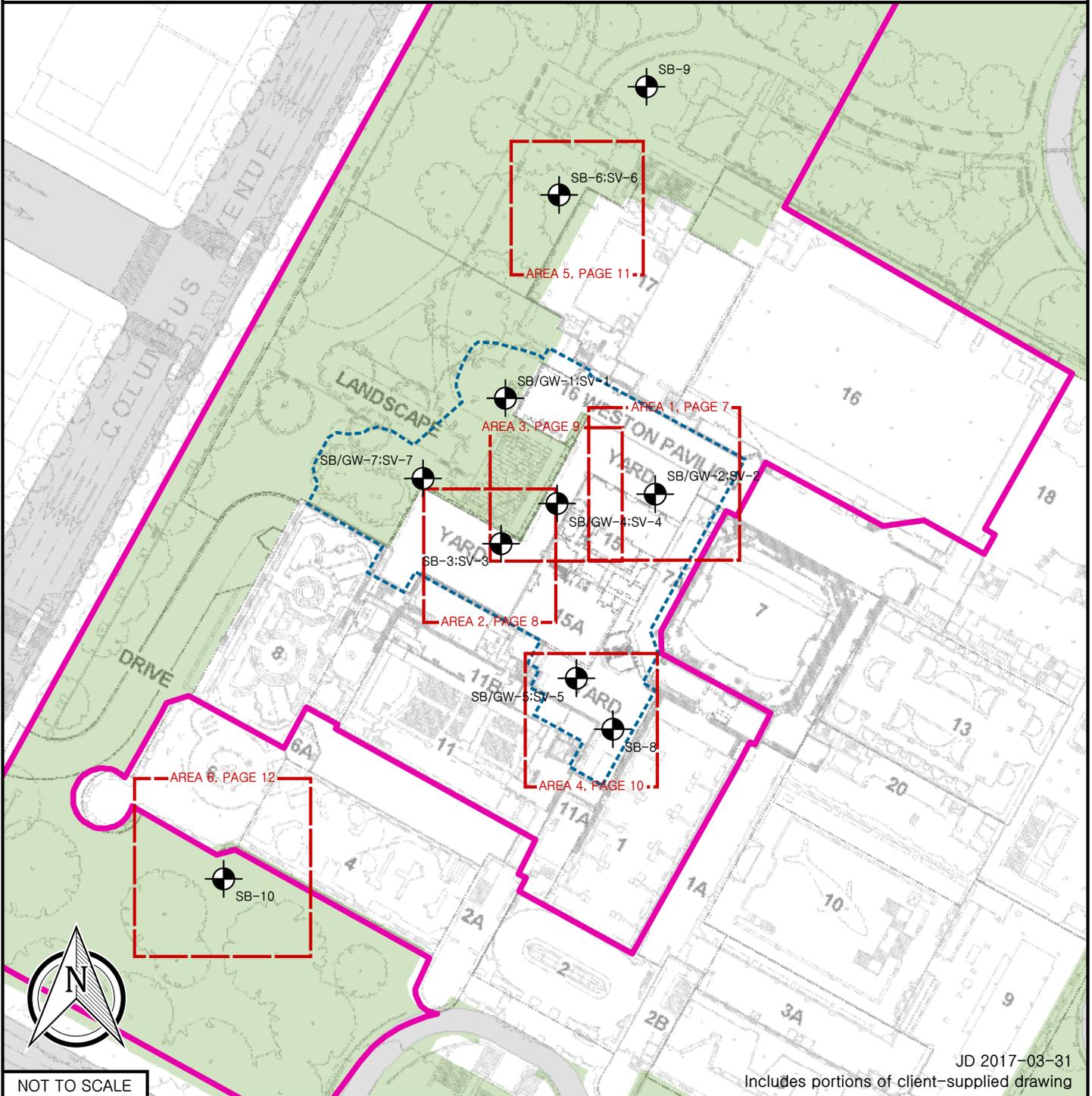
PROJECT SITE BOUNDARY



PROPOSED NEW BUILDING FOOTPRINT



PROPOSED BORE LOCATION



NOT TO SCALE

JD 2017-03-31
Includes portions of client-supplied drawing

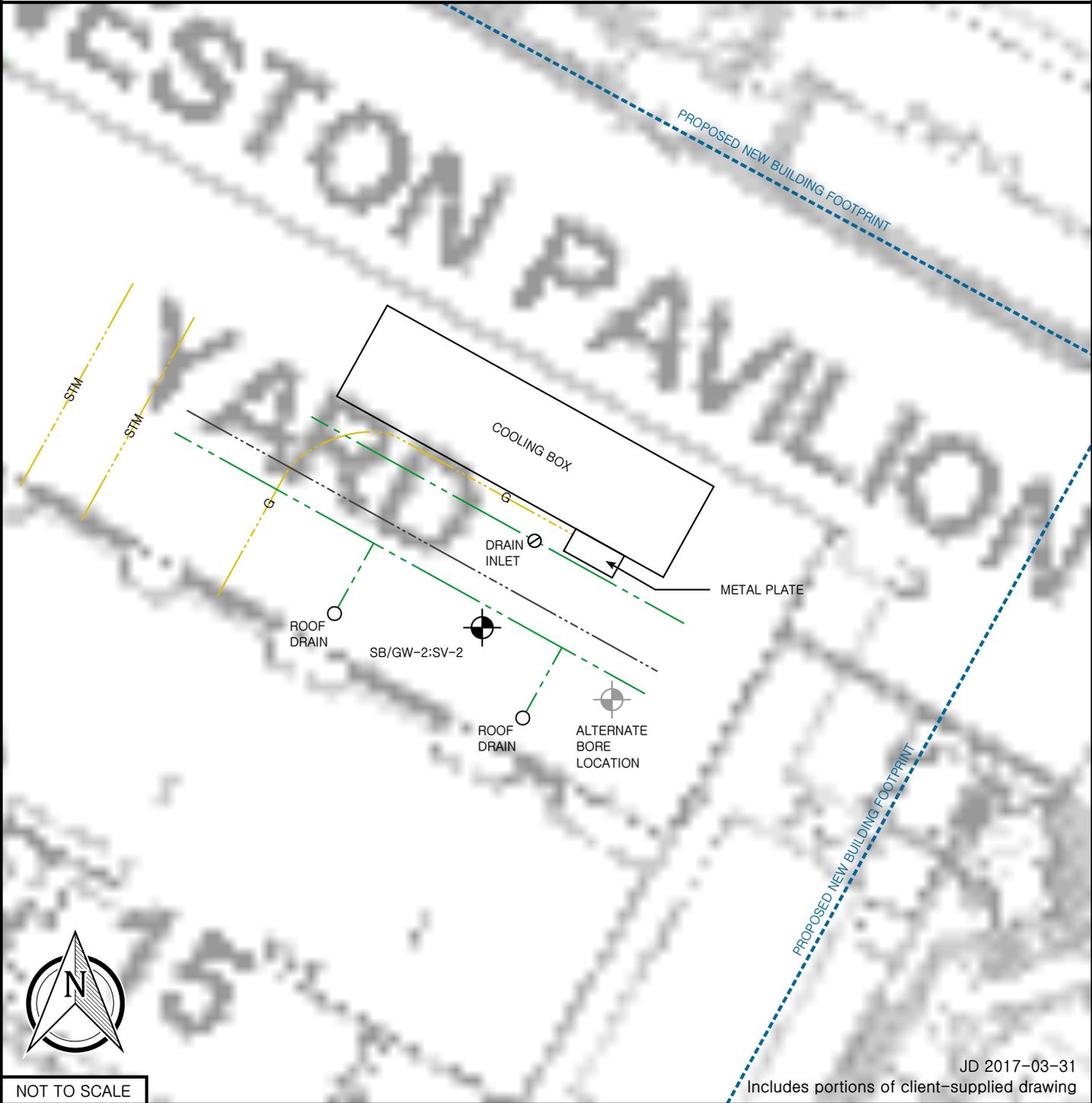


On Point Locating, Inc.
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TEL: (631) 667-6468
FAX: (631) 589-1157

Project Name: American Museum of Natural History
Client Name: AKRF, Inc.
Project ID #: 17C-1017
Date(s) Worked: 3/23/2017
Location: Central Park West & 79th St. New York, NY 10024

IV. Job Site Sketches

LEGEND



NOT TO SCALE

JD 2017-03-31

Includes portions of client-supplied drawing


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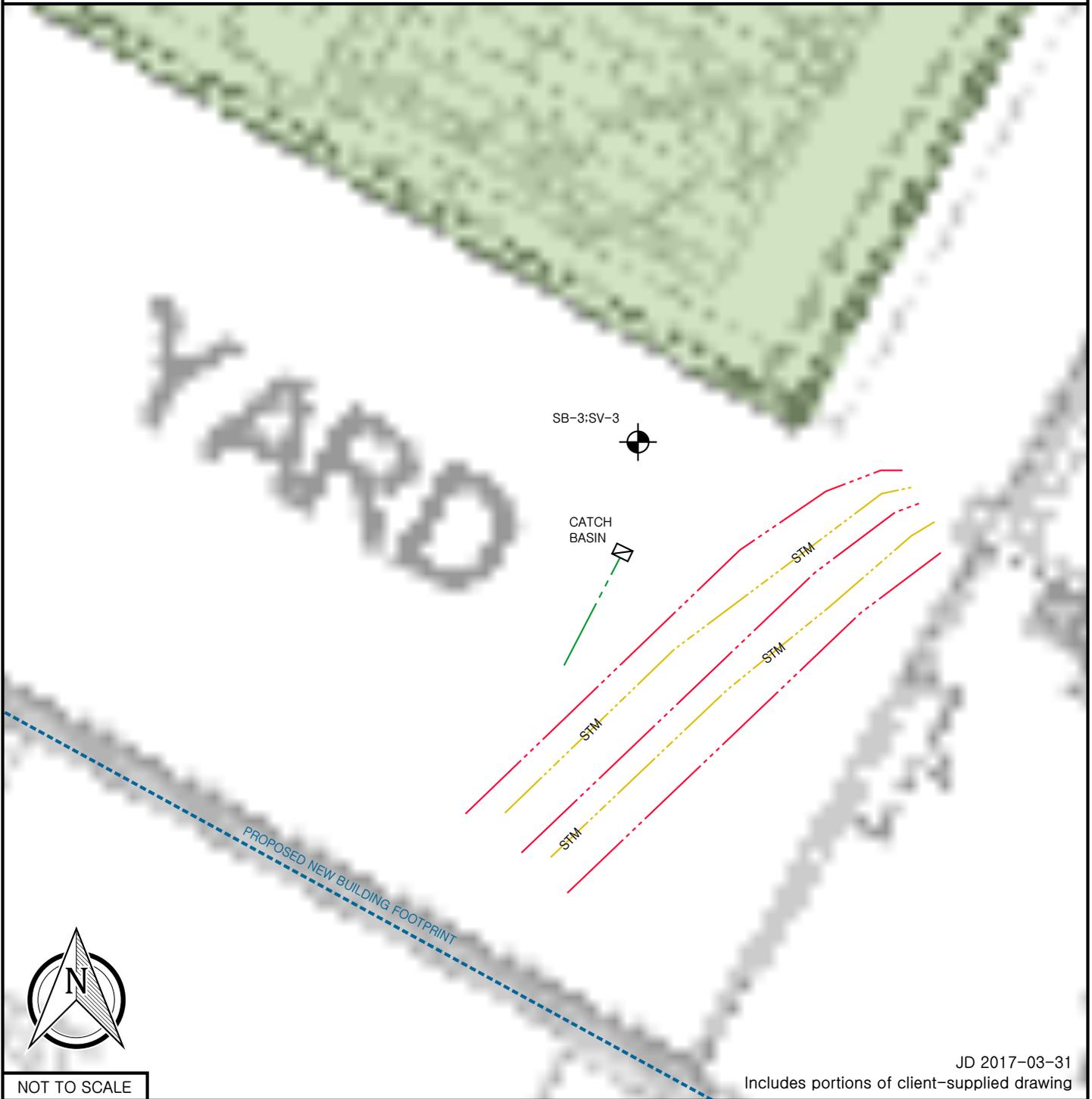
IV. Job Site Sketches

LEGEND

 ELECTRIC
 DRAINAGE

 STM
  STEAM

 PROPOSED BORE LOCATION



NOT TO SCALE

JD 2017-03-31
Includes portions of client-supplied drawing

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 Project ID #: 17C-1017
 Date(s) Worked: 3/23/2017
 Location: Central Park West & 79th St. New York, NY 10024

IV. Job Site Sketches

LEGEND

— · — · — · — · — ELECTRIC
- - - - - DRAINAGE

 PROPOSED BORE LOCATION



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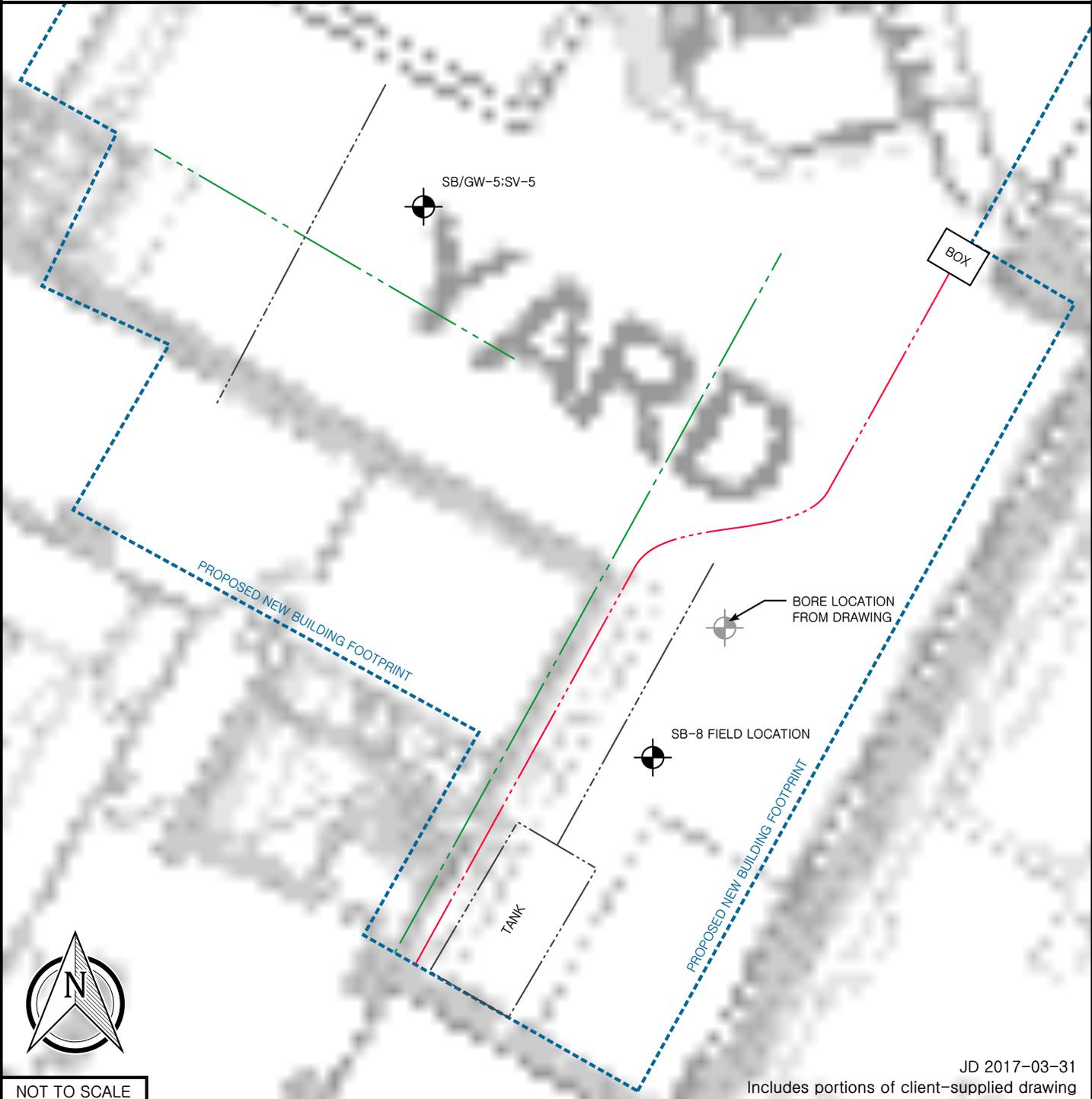
IV. Job Site Sketches

LEGEND

— ELECTRIC
 - - - DRAINAGE

- - - UNIDENTIFIED UTILITY

⊙ PROPOSED BORE LOCATION



NOT TO SCALE

JD 2017-03-31
 Includes portions of client-supplied drawing

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 Date(s) Worked: 3/23/2017
 Location: Central Park West & 79th St. New York, NY 10024

IV. Job Site Sketches

AREA 6 OF 6

LEGEND

 ELECTRIC

 SITE LIGHT

 PROPOSED BORE LOCATION



JD 2017-03-31

Includes portions of client-supplied drawing

NOT TO SCALE



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Project Name: American Museum of Natural History
Client Name: AKRF, Inc.
Project ID #: 17C-1017
Date(s) Worked: 3/23/2017
Location: Central Park West & 79th St. New York, NY 10024

APPENDIX C
SOIL BORING LOGS

| SOIL BORING LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park AKRF Project Number: 12166 | | Soil Boring ID: SB-1 Sheet 1 of 1 | | | | |
|---|-------------------|---|--|---|------------|---------------------------|------|------------------------------------|
|  440 Park Avenue South, 7th Floor New York, NY 10016 | | Drilling Method: 6610DT | | Drilling | | | | |
| | | Sampling Method: 2" Macro | | Start Time: 11:00 | | Finish Time: 11:40 | | |
| | | Driller: Cascade | | Date: 3/27/2017 | | | | |
| | | Weather: 45F, Light Rain | | | | | | |
| Logged By: M. Levy | | | | | | | | |
| Depth (feet) | Recovery (Inches) | Surface Condition: Landscape | | Odor | Moisture | PID (ppm) | NAPL | Samples Collected for Lab Analysis |
| 1 | 60 | Dark Brown SILT and SAND, with trace Roots (Top Soil). | | ND | Dry | ND | ND | SB-1 (1'-2') 170329 |
| 2 | | Brown SAND and SILT, with trace Brick and weathered rock. | | ND | Dry | ND | ND | |
| 3 | | Gray WEATHERED ROCK (SAND trace mica). | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | 60 | Brown SAND and SILT, with trace fine Gravel and weathered rock (gray and tan Sand w/ mica). | | ND | Dry | ND | ND | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | 60 | Brown SAND and SILT, with trace fine Gravel and weathered rock (Gray and Tan Sand w/ mica). | | ND | Dry | 6.4 | ND | |
| 12 | | Gray WEATHERED ROCK (Sand with trace mica). | | ND | Dry | 7.1 | ND | |
| 13 | | ASPHALT. | | Asphalt | Dry | 12.2 | ND | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | 60 | Brown SAND and SILT, with some tan and brown Sand, trace mica, weathered rock, trace fine gravel. | | ND | Wet at 18' | 7.4 | ND | SB-1 (17'-18') |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |
| 21 | 60 | Gray SAND and SILT. | | ND | Wet | ND | ND | |
| 22 | | Brown SAND and SILT. | | ND | Wet | ND | ND | |
| 23 | | Refusal at 24 feet below grade. | | | | | | |
| 24 | | | | | | | | |
| 25 | | | | | | | | |

Notes: End of boring at 24 feet below ground surface. Groundwater encountered at 18 feet below grade.

PID = photoionization detector PPM = parts per million ND = not detected

| SOIL BORING LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park AKRF Project Number: 12166 | | Soil Boring ID: SB-2 Sheet 1 of 1 | | | | |
|---|-------------------|--|--|---|----------|--------------------|------|------------------------------------|
|  440 Park Avenue South, 7th Floor New York, NY 10016 | | Drilling Method: 6610DT | | Drilling | | | | |
| | | Sampling Method: 2" Macro | | Start Time: 10:00 | | Finish Time: 10:45 | | |
| | | Driller: Cascade | | Date: 3/27/2017 | | | | |
| | | Weather: 45F, Light Rain | | | | | | |
| Logged By: M. Levy | | | | | | | | |
| Depth (feet) | Recovery (Inches) | Surface Condition: | | Odor | Moisture | PID (ppm) | NAPL | Samples Collected for Lab Analysis |
| 1 | 24 | CONCRETE. | | ND | Dry | ND | ND | |
| 2 | | Brown SAND and SILT, with fine Gravel, trace Mica flakes. | | ND | Dry | ND | ND | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | 38 | Brown SAND and SILT, with Mica-like flakes, trace fine Gravel. | | ND | Dry | ND | ND | SB-2 (8'-9') 170327 |
| 7 | | Light Brown SAND, Some Silt, Clay mixture. | | ND | Wet | ND | ND | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | 40 | Brown SAND and SILT, with Mica-like flakes. | | ND | Wet | ND | ND | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | 36 | Brown SAND and SILT, with Mica-like flakes, trace fine Gravel, weathered rock. | | ND | Wet | ND | ND | |
| 17 | | Refusal at 18 feet below grade. | | ND | Wet | ND | ND | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |

Notes: End of boring at 18 feet below ground surface. Groundwater encountered at 10 feet below grade.

PID = photoionization detector PPM = parts per million ND = not detected

| SOIL BORING LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park AKRF Project Number: 12166 | | Soil Boring ID: SB-3 Sheet 1 of 1 | | | | |
|---|-------------------|--|-----------------|---|----------|--------------|-------|------------------------------------|
|  440 Park Avenue South, 7th Floor New York, NY 10016 | | Drilling Method: | 6610DT | Drilling | | | | |
| | | Sampling Method: | 2" Macro | Start Time: | 14:00 | Finish Time: | 15:00 | |
| | | Driller: | Cascade | Date: | | | | 3/27/2017 |
| | | Weather: | 45F, Light Rain | | | | | |
| Logged By: | M. Levy | | | | | | | |
| Depth (feet) | Recovery (Inches) | Surface Condition: | | Odor | Moisture | PID (ppm) | NAPL | Samples Collected for Lab Analysis |
| 1 | 50 | CONCRETE. | | ND | Dry | ND | ND | SB-3 (1'-2') 170327 |
| 2 | | | | | | | | |
| 3 | | Dark brown SAND, and some Silt with fine Gravel. | | ND | Dry | ND | ND | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | 60 | Weathered ROCK and Brown SAND/SILT. Gravel. | | ND | Dry | ND | ND | SB-3 (5'-6') 170327 |
| 7 | | Gray SAND, Silt and Clay. | | ND | Wet | ND | ND | |
| 8 | | Brown SAND and SILT, with trace fine Gravel. | | ND | Wet | ND | ND | |
| 9 | | | | | | | | |
| 10 | | End of boring at 10 feet below grade. | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |

Notes: End of boring at 10 feet below ground surface. Groundwater encountered at 8 feet below grade.

PID = photoionization detector PPM = parts per million ND = not detected

| SOIL BORING LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park AKRF Project Number: 12166 | | Soil Boring ID: SB-4 Sheet 1 of 1 | | | | |
|---|-------------------|--|--|---|----------|--------------------|------|------------------------------------|
|  440 Park Avenue South, 7th Floor New York, NY 10016 | | Drilling Method: 6610DT | | Drilling | | | | |
| | | Sampling Method: 2" Macro | | Start Time: 12:00 | | Finish Time: 12:45 | | |
| | | Driller: Cascade | | Date: 3/27/2017 | | | | |
| | | Weather: 45F, Light Rain | | | | | | |
| Logged By: M. Levy | | | | | | | | |
| Depth (feet) | Recovery (Inches) | Surface Condition: | | Odor | Moisture | PID (ppm) | NAPL | Samples Collected for Lab Analysis |
| 1 | 42 | CONCRETE. | | ND | Dry | ND | ND | |
| 2 | | | | | | | | |
| 3 | | SUB-BASE MATERIAL. | | ND | Dry | ND | ND | |
| 4 | | SAND, Rock, Brick, Gravel. | | | | | | |
| 5 | | Similar to dry concrete. | | | | | | |
| 6 | 60 | Brown SAND, with Silt, trace Gravel. | | ND | Dry | ND | ND | SB-4 (5'-6') 170327 |
| 7 | | Dark Gray SAND, Silt and Clay. | | ND | Dry | ND | ND | |
| 8 | | Gray SAND, Silt and Clay. | | ND | Wet | ND | ND | SB-4 (6'-7') 170327 |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | 38 | Brown SAND and SILT, with trace fine Gravel. | | ND | Wet | ND | ND | |
| 12 | | Gray SAND, Silt, Clay. | | ND | Wet | ND | ND | |
| 13 | | Brown SAND and SILT, with trace fine Gravel. | | ND | Wet | ND | ND | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | Brown SAND and SILT, with trace fine Gravel. | | ND | Wet | ND | ND | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | Refusal at 19 feet below grade. | | | | | | |
| 20 | | | | | | | | |

Notes: End of boring at 19 feet below ground surface. Groundwater encountered at 7 feet below grade.

PID = photoionization detector PPM = parts per million ND = not detected

| SOIL BORING LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park AKRF Project Number: 12166 | | Soil Boring ID: SB-5 Sheet 1 of 1 | | | | |
|---|-------------------|--|--|---|----------|-------------------|------|------------------------------------|
|  440 Park Avenue South, 7th Floor New York, NY 10016 | | Drilling Method: 6610DT | | Drilling | | | | |
| | | Sampling Method: 2" Macro | | Start Time: 8:15 | | Finish Time: 8:50 | | |
| | | Driller: Cascade | | Date: 3/28/2017 | | | | |
| | | Weather: 45F, Light Rain | | | | | | |
| Logged By: M. Levy | | | | | | | | |
| Depth (feet) | Recovery (Inches) | Surface Condition: Concrete | | Odor | Moisture | PID (ppm) | NAPL | Samples Collected for Lab Analysis |
| 1 | 50 | CONCRETE and SUB-BASE. | | ND | Dry | ND | ND | SB-5 (1'-2') 170328 |
| 2 | | WEATHERED ROCK. | | | | | | |
| 3 | | Yellow and brown SAND and SILT, with Mica flakes. | | ND | Dry | ND | ND | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | 50 | Yellow and brown SAND and SILT, with Mica flakes. | | ND | Wet | ND | ND | SB-5 (4.5'-5.5') 170328 |
| 7 | | Brown/dark brown SAND and SILT, with Mica flakes. | | ND | Wet | ND | ND | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | 24 | Brown/dark brown SAND and SILT, with Mica flakes. | | ND | Wet | ND | ND | |
| 12 | | Refusal at 12 feet below grade. | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |

Notes: End of boring at 12 feet below ground surface. Groundwater encountered at 5.45 feet below grade.

PID = photoionization detector PPM = parts per million ND = not detected

| SOIL BORING LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park AKRF Project Number: 12166 | Soil Boring ID: SB-6 Sheet 1 of 1 | | | | |
|---|-------------------|--|---|--------------------------|-----------|------|------------------------------------|
|  440 Park Avenue South, 7th Floor New York, NY 10016 | | Drilling Method: 6610DT | Drilling | | | | |
| | | Sampling Method: 2" Macro | Start Time: 8:40 | Finish Time: 0:00 | | | |
| | | Driller: Cascade | Date: 3/29/2017 | | | | |
| | | Weather: Partly Cloudy, 45 F | | | | | |
| | | Logged By: M. Levy | | | | | |
| Depth (feet) | Recovery (Inches) | Surface Condition: | Odor | Moisture | PID (ppm) | NAPL | Samples Collected for Lab Analysis |
| 1 | 60 | Dark brown SAND and SILT, with roots. | ND | Dry | ND | ND | SB-6 (0'-1') 170329 |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | 60 | Brown SAND and SILT with trace weathered roots and gray and yellow SAND with Mica flakes. | ND | Dry | ND | ND | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | 60 | Brown SAND and SILT, with trace fine Gravel, roots. | ND | Wet | ND | 1.8 | |
| 12 | | Gray and red SAND, Silt and Clay with trace roots. | ND | Wet | ND | 2.8 | |
| 13 | | Dark gray SAND and SILT, with trace roots. | ND | Wet | ND | 2.9 | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | 60 | Gray SAND and SILT. | ND | Dry | ND | 2.1 | |
| 17 | | | | | | | |
| 18 | | Brown SAND and SILT, trace gray Sand and Silt. | ND | Dry | ND | 1.8 | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | 60 | Brown SAND and SILT, with trace fine Gravel. | ND | Wet | ND | ND | |
| 22 | | | | | | | |
| 23 | | Brown SAND and SILT, trace gray Sand and Silt. | ND | Wet | ND | ND | |
| 24 | | | | | | | |
| 25 | | End of boring at 24 feet below grade. | | | | | |

Notes: End of boring at 24 feet below ground surface. Groundwater encountered at 21 feet below grade.

PID = photoionization detector PPM = parts per million ND = not detected

| SOIL BORING LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park AKRF Project Number: 12166 | Soil Boring ID: SB-7 | | | | |
|---|-------------------|--|-----------------------------|--------------------------|-----------|------|------------------------------------|
|  440 Park Avenue South, 7th Floor New York, NY 10016 | | Drilling Method: 6610DT | Drilling | | | | |
| | | Sampling Method: 2" Macro | Start Time: 7:45 | Finish Time: 8:20 | | | |
| | | Driller: Cascade | Date: 3/30/2017 | | | | |
| | | Weather: Partly Cloudy, 45 F | | | | | |
| | | Logged By: M. Levy | | | | | |
| Depth (feet) | Recovery (Inches) | Surface Condition: Grass | Odor | Moisture | PID (ppm) | NAPL | Samples Collected for Lab Analysis |
| 1 | 45 | Dark brown SAND and SILT, with roots and grass. | ND | Dry | ND | ND | SB-7 (1'-2') 170330 |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | 40 | Brown SAND and SILT, with trace Gravel. | ND | Moist | ND | ND | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | 40 | Brown SAND, some brown Silt, trace fine Gravel, weathered Rock. | ND | Moist | ND | ND | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | 24 | WEATHERED ROCK (Gray SAND and SILT with Mica). | ND | Dry | ND | 3.1 | SB-7 (18.5'-19.5') 170330 |
| 17 | | | | | | | |
| 18 | | Dark brown and black SAND and SILT, with trace fine Gravel. | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |
| 21 | 60 | Dark brown and black SAND and SILT, with trace fine Gravel. | ND | Wet | ND | ND | |
| 22 | | | | | | | |
| 23 | | Brown SAND and SILT. | | | | | |
| 24 | | | | | | | |
| 25 | | End of boring at 25 feet below grade. | | | | | |

Notes: End of boring at 25 feet below ground surface. Groundwater encountered at 21 feet below grade.

PID = photoionization detector PPM = parts per million ND = not detected

| SOIL BORING LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park AKRF Project Number: 12166 | | Soil Boring ID: SB-8 | | | |
|---|-------------------|--|-------------------------|-----------------------------|-----------|------|------------------------------------|
|  440 Park Avenue South, 7th Floor New York, NY 10016 | | Drilling Method: 6610DT | Drilling | | | | |
| | | Sampling Method: 2" Macro | Start Time: 7:30 | Finish Time: 8:10 | | | |
| | | Driller: Cascade | Date: 3/28/2017 | | | | |
| | | Weather: 45F , Light Rain | | | | | |
| | | Logged By: M. Levy | | | | | |
| Depth (feet) | Recovery (Inches) | Surface Condition: Concrete | Odor | Moisture | PID (ppm) | NAPL | Samples Collected for Lab Analysis |
| 1 | 30" | CONCRETE. | ND | Dry | ND | ND | SB-8 (1'-2') 170328 |
| 2 | | WEATHERED ROCK. | ND | Dry | ND | ND | SB-8 (2'-3') 170328 |
| 3 | | Yellow and Dark Brown SAND and SILT, with Mika flakes. | ND | Dry | ND | ND | |
| 4 | | Refusal at 3 feet below grade. | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |

Notes: End of boring at 3' below ground surface. No Groundwater encountered.
 Four offset points in addition to original point. Deepest point abandoned 3 feet below grade. Shallowest point abandoned 2 feet below grade.
 PID = photoionization detector PPM = parts per million ND = not detected

| SOIL BORING LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park AKRF Project Number: 12166 | | Soil Boring ID: SB-8A Sheet 1 of 1 | | | | |
|--|-------------------|--|--|--|----------|-------------------|------|------------------------------------|
| AKRF 440 Park Avenue South, 7th Floor New York, NY 10016 | | Drilling Method: 6610DT | | Drilling | | | | |
| | | Sampling Method: 2" Macro | | Start Time: 9:00 | | Finish Time: 9:15 | | |
| | | Driller: Cascade | | Date: 3/28/2017 | | | | |
| | | Weather: 45F, Light Rain | | | | | | |
| | | Logged By: M. Levy | | | | | | |
| Depth (feet) | Recovery (Inches) | Surface Condition: Concrete | | Odor | Moisture | PID (ppm) | NAPL | Samples Collected for Lab Analysis |
| 1 | 40" | CONCRETE. | | ND | Dry | ND | ND | SB-8 (1'-2') 170328 |
| 2 | | Grey/Brown SAND and GRAVEL, Fine to Medium with trace brick. | | ND | Dry | ND | ND | SB-8 (2'-3') 170328 |
| 3 | | | | ND | Dry | ND | ND | |
| 4 | | | | ND | Dry | ND | ND | |
| 5 | | WEATHERED ROCK, Grey Sand and Silt. | | ND | Dry | ND | ND | SB-8A (5'-5.5') |
| 6 | 6" | WEATHERED ROCK, Grey Sand and Silt. Refusal at 5.5 feet below grade. | | ND | Dry | | | 170328 |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |

Notes: End of boring at feet below ground surface. No Groundwater encountered.

PID = photoionization detector PPM = parts per million ND = not detected

| SOIL BORING LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park AKRF Project Number: 12166 | Soil Boring ID: SB-9 Sheet 1 of 1 | | | | |
|---|-------------------|--|---|--------------------|-----------|------|------------------------------------|
|  440 Park Avenue South, 7th Floor New York, NY 10016 | | Drilling Method: Hand Auger | Drilling | | | | |
| | | Sampling Method: Grab Sample | Start Time: 10:30 | Finish Time: 10:55 | | | |
| | | Driller: Cascade | Date: 3/30/2017 | | | | |
| | | Weather: Cloudy, 40 F | | | | | |
| Logged By: M. Levy | | | | | | | |
| Depth (feet) | Recovery (Inches) | Surface Condition: Concrete | Odor | Moisture | PID (ppm) | NAPL | Samples Collected for Lab Analysis |
| 1 | 40" | Dark Brown SAND and SILT, with trace roots (top soil). | ND | Dry | ND | ND | SB-9 (2'-3') 170330 |
| 2 | | Brown Sand and SILT, with trace fine Sand and gravel. | ND | Dry | ND | ND | |
| 3 | | | ND | Dry | ND | ND | |
| 4 | | | ND | Dry | ND | ND | |
| 5 | | | Target Depth met at 4 feet below grade. | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |

Notes: End of boring at feet below ground surface. No Groundwater encountered.

PID = photoionization detector PPM = parts per million ND = not detected

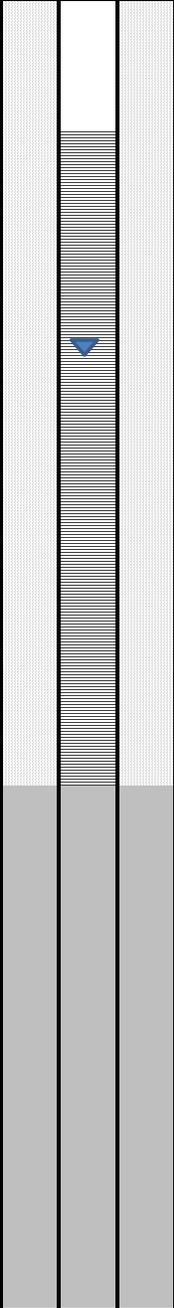
| SOIL BORING LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park AKRF Project Number: 12166 | | Soil Boring ID: SB-10 Sheet 1 of 1 | | | | |
|---|-------------------|--|--|--|----------|--------------------|------|------------------------------------|
|  440 Park Avenue South, 7th Floor New York, NY 10016 | | Drilling Method: Hand Auger | | Drilling | | | | |
| | | Sampling Method: Grab Sample | | Start Time: 10:00 | | Finish Time: 10:20 | | |
| | | Driller: Cascade | | Date: 3/30/2017 | | | | |
| | | Weather: Cloudy, 40 F | | Logged By: M. Levy | | | | |
| Depth (feet) | Recovery (Inches) | Surface Condition: Concrete | | Odor | Moisture | PID (ppm) | NAPL | Samples Collected for Lab Analysis |
| 1 | 40" | Dark Brown SAND and SILT, with trace Roots, Grass. | | ND | Dry | ND | ND | SB-10 (2'-3') 170330 |
| 2 | | | | ND | Dry | ND | ND | |
| 3 | | Brown SAND and SILT, with trace fine gravel. | | ND | Dry | ND | ND | |
| 4 | | | | ND | Dry | ND | ND | |
| 5 | | Target Depth met at 4 feet below grade. | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |

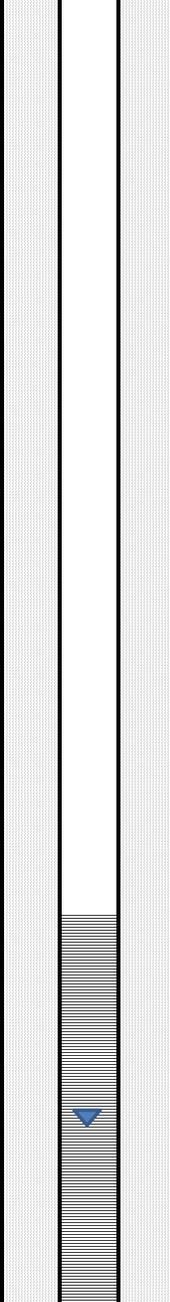
Notes: End of boring at feet below ground surface. No Groundwater encountered.
 PID = photoionization detector PPM = parts per million ND = not detected

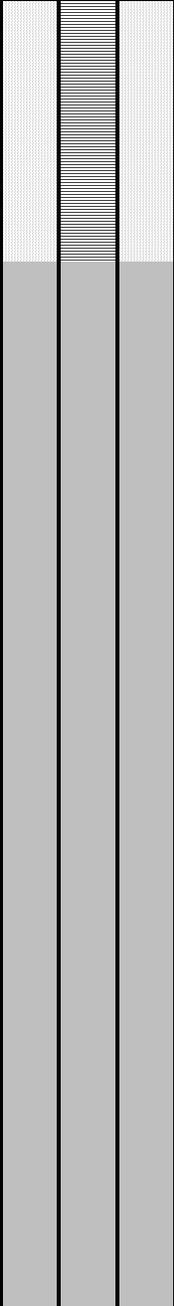
APPENDIX D
MONITORING WELL CONSTRUCTION LOGS

| WELL INSTALLATION LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park | |
|---|---|--|-----------------|
|  440 Park Avenue South, 7 th Floor New York, NY 10016 | | Drilling Method: | Geoprobe 6610DT |
| | | Sampling Method: | Geo Pump |
| | | Driller: | Cascade |
| | | Weather: | 40°F, Rain |
| | | Logged by: | ML, AKRF |
| | | Monitoring Well: GW-2 | |
| Depth (feet) | Well Construction | Surface Condition: Concrete | |
| 1 | | 1 inch diameter PVC well casing 0 to 8 feet below grade. | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 |  | Groundwater measured at 9 feet below grade. | |
| 10 | | 1 inch diameter PVC slotted screen 8 to 18 feet below grade. | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| 16 | | Bottom of well at 18 feet below grade. | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| 20 | | | |
| Notes:  Groundwater Depth Indicator Groundwater measured at 9 feet below grade. Groundwater monitoring well installed to 18 feet below grade. | | | |
| <small>PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected</small> | | | |
| <small>Soil classifications and descriptions presented are based on the Modified Burmister Classification System.</small> | | | |

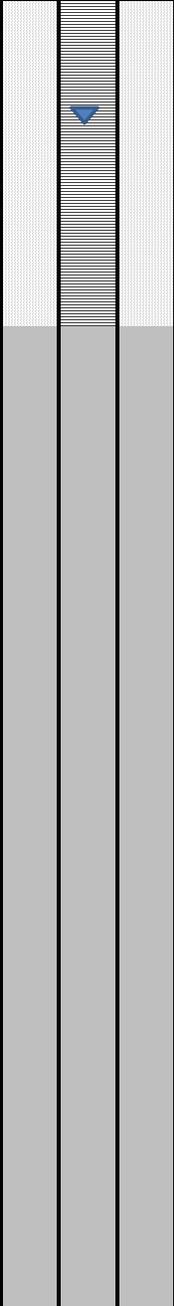
| WELL INSTALLATION LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park | |
|---|-------------------|--|-----------------|
|  440 Park Avenue South, 7 th Floor New York, NY 10016 | | Drilling Method: | Geoprobe 6610DT |
| | | Sampling Method: | Geo Pump |
| | | Driller: | Cascade |
| | | Weather: | 40°F, Rain |
| | | Logged by: | ML, AKRF |
| | | Monitoring Well: GW-4 | |
| Depth (feet) | Well Construction | Surface Condition: Concrete | |
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | 1 inch diameter PVC well casing 0 to 9 feet below grade. | |
| 6 | | | |
| 7 | ▼ | Groundwater measured at 7.2 feet below grade. | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | 1 inch diameter PVC slotted screen 9 to 19 feet below grade. | |
| 14 | | | |
| 15 | | | |
| 16 | | | |
| 17 | | | |
| 18 | | | |
| 19 | | Bottom of well at 19 feet below grade. | |
| 20 | | | |
| Notes: ▼ Groundwater Depth Indicator Groundwater measured at 7.2 feet below grade. Groundwater monitoring well installed to 19 feet below grade. | | | |
| <small>PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected</small> | | | |
| <small>Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions</small> | | | |

| WELL INSTALLATION LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park | |
|---|--|--|-----------------|
|  440 Park Avenue South, 7 th Floor New York, NY 10016 | | Drilling Method: | Geoprobe 6610DT |
| | | Sampling Method: | Geo Pump |
| | | Driller: | Cascade |
| | | Weather: | 40°F, Rain |
| | | Logged by: | ML, AKRF |
| | | Monitoring Well: GW-5 | |
| Depth (feet) | Well Construction | Surface Condition: Concrete | |
| 1 |  | 1 inch diameter PVC well casing 0 to 2 feet below grade. | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | Groundwater measured at 5.5 feet below grade. | |
| 7 | | 1 inch diameter PVC slotted screen 2 to 12 feet below grade. | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | Bottom of well at 12 feet below grade. | |
| 13 |  | | |
| 14 | | | |
| 15 | | | |
| 16 | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| 20 | | | |
| Notes:  Groundwater Depth Indicator Groundwater measured at 5.5 feet below grade. Groundwater monitoring well installed to 12 feet below grade. | | | |
| <small>PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected</small> | | | |
| <small>Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions</small> | | | |

| WELL INSTALLATION LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park | |
|--|--|--|-----------------|
|  440 Park Avenue South, 7 th Floor New York, NY 10016 | | Drilling Method: | Geoprobe 6610DT |
| | | Sampling Method: | Geo Pump |
| | | Driller: | Cascade |
| | | Weather: | 40°F, Rain |
| | | Logged by: | ML, AKRF |
| | | Monitoring Well: GW-6 | |
| Depth (feet) | Well Construction | Surface Condition: Concrete | |
| 1 |  | <p>1 inch diameter PVC well casing: 0 to 14 feet below grade.</p> <p>Groundwater measured at 17.3 feet below grade.</p> <p>1 inch diameter PVC slotted screen 14 to 24 feet below grade.</p> | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| 16 | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| 20 | | | |
| Notes:  Groundwater Depth Indicator Groundwater measured at 17.3 feet below grade. Groundwater monitoring well installed to 24 feet below grade. | | | |
| <small>PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected</small> | | | |
| <small>Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions</small> | | | |

| WELL INSTALLATION LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park | |
|--|--|--|-----------------|
|  440 Park Avenue South, 7 th Floor New York, NY 10016 | | Drilling Method: | Geoprobe 6610DT |
| | | Sampling Method: | Geo Pump |
| | | Driller: | Cascade |
| | | Weather: | 40°F, Rain |
| | | Logged by: | ML, AKRF |
| | | Monitoring Well: GW-6 | |
| Depth (feet) | Well Construction | Surface Condition: Concrete | |
| 21 |  | 1 inch diameter PVC slotted screen 14 to 24 feet below grade. | |
| 22 | | | |
| 23 | | | |
| 24 | | Bottom of well at 24 feet below grade. | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| 28 | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| 32 | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| 36 | | | |
| 37 | | | |
| 38 | | | |
| 39 | | | |
| 40 | | | |
| Notes:  Groundwater Depth Indicator Groundwater measured at 17.3 feet below grade. Groundwater monitoring well installed to 24 feet below grade. | | | |
| <small>PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected</small> | | | |
| <small>Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions</small> | | | |

| | | | |
|--|-------------------|--|---------------------------------|
| WELL INSTALLATION LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park AKRF Project Number: 12166 | |
|  440 Park Avenue South, 7 th Floor New York, NY 10016 | | Drilling Method: Geoprobe 6610DT Sampling Method: Geo Pump Driller: Cascade Weather: 40°F, Rain Logged by: ML, AKRF | Monitoring Well: GW-7 |
| Depth (feet) | Well Construction | Surface Condition: Concrete | |
| 1 | | 1 inch diameter PVC well casing: 0 to 15 feet below grade. | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| 16 | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| 20 | | | |
| Notes:  Groundwater Depth Indicator Groundwater measured at 22 feet below grade. Groundwater monitoring well installed to 25 feet below grade. | | | |
| <small>PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected</small> | | | |
| <small>Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions</small> | | | |

| WELL INSTALLATION LOG | | Portions of the American Museum of Natural History and Theodore Roosevelt Park | |
|--|--|--|---------------------------------|
| | | AKRF Project Number: 12166 | |
|  440 Park Avenue South, 7 th Floor New York, NY 10016 | | Drilling Method: Geoprobe 6610DT Sampling Method: Geo Pump Driller: Cascade Weather: 40°F, Rain Logged by: ML, AKRF | Monitoring Well: GW-7 |
| Depth (feet) | Well Construction | Surface Condition: Concrete | |
| 21 |  | 1 inch diameter PVC slotted screen 15 to 25 feet below grade. | |
| 22 | | Groundwater measured at 22 feet below grade. | |
| 23 | | | |
| 24 | | | |
| 25 | | Bottom of well at 25 feet below grade. | |
| 26 | | | |
| 27 | | | |
| 28 | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| 32 | | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| 36 | | | |
| 37 | | | |
| 38 | | | |
| 39 | | | |
| 40 | | | |
| Notes:  Groundwater Depth Indicator Groundwater measured at 22 feet below grade. Groundwater monitoring well installed to 25 feet below grade. | | | |
| <small>PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected</small> | | | |
| <small>Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions</small> | | | |

APPENDIX E
SOIL VAPOR SAMPLING LOGS

Job No: 12166 **Client:** AMNH
Portions of the American
Museum of Natural History
and Theodore Roosevelt Park
Project Location: Portions of the American
Museum of Natural History
and Theodore Roosevelt Park **Sampled By:** ML
Date: 3/28/2017

Sample ID: SV-4-170328
Canister ID: 2535
Flow Controller ID: 4244

Purging

Time Started: 11:43
Time Stopped: 11:53
Vol. Purged: 1.0 liters
Flow Rate: 0.1 L/min

Laboratory Sample (Summa Canister)

Time Started: 11:53 **Vacuum:** -30.00 inHg
Time Stopped: 12:47 **Vacuum:** -5.0 inHg

Field Sample

PID Calibration: 100 ppm
Time Started: 07:05
Time Stopped: 07:10
PID Reading: 2.2 ppm
He Reading: 0.0

Job No: 12166 **Client:** AMNH

Project Location: Portions of the American
Museum of Natural History
and Theodore Roosevelt Park **Sampled By:** ML

Date: 3/28/2017

Sample ID: SV-5-170328

Canister ID: 2601

Flow Controller ID: 4766

Purging

Time Started: 11:20

Time Stopped: 11:30

Vol. Purged: 1.0 liters

Flow Rate: 0.1 L/min

Laboratory Sample (Summa Canister)

Time Started: 11:30 **Vacuum:** -30.00 inHg

Time Stopped: 13:05 **Vacuum:** -5.0 inHg

Field Sample

PID Calibration: 100 ppm

Time Started: 07:05

Time Stopped: 07:10

PID Reading: 2.0 ppm

He Reading: 0.0

Job No: 12166 **Client:** AMNH
Portions of the American
Museum of Natural History
and Theodore Roosevelt Park
Project Location: Portions of the American
Museum of Natural History
and Theodore Roosevelt Park **Sampled By:** ML
Date: 3/29/2017

Sample ID: SV-6-170329
Canister ID: 2522
Flow Controller ID: 4505

Purging

Time Started: 12:16
Time Stopped: 12:20
Vol. Purged: 1.0 liters
Flow Rate: 0.1 L/min

Laboratory Sample (Summa Canister)

Time Started: 12:27 **Vacuum:** -30.00 inHg
Time Stopped: 13:23 **Vacuum:** -5.0 inHg

Field Sample

PID Calibration: 100 ppm
Time Started: 07:00
Time Stopped: 07:05
PID Reading: 1.9 ppm
He Reading: 0.0

Job No: 12166 **Client:** AMNH
Portions of the American
Museum of Natural History
and Theodore Roosevelt Park
Project Location: Portions of the American
Museum of Natural History
and Theodore Roosevelt Park **Sampled By:** ML
Date: 3/30/2017

Sample ID: SV-7-170330
Canister ID: 4581
Flow Controller ID: 4188

Purging

Time Started: 08:43
Time Stopped: 08:53
Vol. Purged: 1.0 liters
Flow Rate: 0.1 L/min

Laboratory Sample (Summa Canister)

Time Started: 08:54 **Vacuum:** -30.00 inHg
Time Stopped: 09:50 **Vacuum:** -5.0 inHg

Field Sample

PID Calibration: 100 ppm
Time Started: 07:00
Time Stopped: 07:05
PID Reading: 13 ppm
He Reading: 0.0

Job No: 12166 **Client:** AMNH
Project Location: Portions of the American
Museum of Natural History
and Theodore Roosevelt Park **Sampled By:** ML
Date: 3/28/2017

Sample ID: AA-170328
Canister ID: 5038
Flow Controller ID: 2763

Laboratory Sample (Summa Canister)

Time Started: 11:32 **Vacuum:** -30.0 inHg
Time Stopped: 12:32 **Vacuum:** -5.00 inHg

Potential VOC sources in vicinity: Vehicular Traffic.

APPENDIX F
TESTING LABORATORY ANALYTICAL DATA SHEETS

ANALYTICAL REPORT

Job Number: 460-130404-1

Job Description: American Museum of Natural History

For:
AKRF Inc
440 Park Avenue South
7th Floor
New York, NY 10016
Attention: Mr. Eric Park



Approved for release.
Allison L. Bennett
Project Management Assistant II
4/3/2017 4:06 PM

Designee for
Melissa Haas, Project Manager I
777 New Durham Road, Edison, NJ, 08817
(203)944-1310
melissa.haas@testamericainc.com
04/03/2017

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

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TestAmerica Laboratories, Inc.

TestAmerica Edison 777 New Durham Road, Edison, NJ 08817
Tel (732) 549-3900 Fax (732) 549-3679 www.testamericainc.com



Job Number: 460-130404-1

Job Description: American Museum of Natural History

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Approved for release.
Allison L. Bennett
Project Management Assistant II
4/3/2017 4:06 PM

Designee for
Melissa Haas

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CASE NARRATIVE

Client: AKRF Inc

Project: American Museum of Natural History

Report Number: 460-130404-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 3/27/2017 6:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5° C.

Receipt Exceptions

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC):

Sample ID on containers for sample #1 is SB-2 (0-2)-170327 not SB-2 (1-2)-170327 as recorded on the COC.

Sample ID on containers for sample #2 is SB-2 (7-9)-170327 not SB-2 (8-9)-170327 as recorded on the COC.

The client was contacted and instructed the lab to use the IDs on the COC.

Per laboratory policy, the Trip Blank sample date/time was changed to reflect the latest sample date/time of the sampling event.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples SB-2 (1-2)-170327 (460-130404-1), SB-2 (8-9)-170327 (460-130404-2), SB-4 (5-6)-170327 (460-130404-4), SB-4 (6-7)-170327 (460-130404-5), SB-3 (1-2)-170327 (460-130404-7) and SB-3 (5-6)-170327 (460-130404-8) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260C. The samples were prepared on 03/28/2017 and analyzed on 03/31/2017.

Acetone was detected in method blank MB 460-427321/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Acetone was detected in method blank MB 460-427483/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Acetone and m-Xylene & p-Xylene were detected in method blank LB3 460-426725/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analysis.

All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GW-2-170327 (460-130404-3), GW-4-170327 (460-130404-6) and TB-170327 (460-130404-9) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 03/30/2017.

The continuing calibration verification (CCV) analyzed in batch 427072 was outside the method criteria for the following analytes: Chloroethane (biased high) and Bromoform (biased low). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The laboratory control sample (LCS) for batch 427072 recovered outside control limits for the following analyte: Chloroethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Acetone was detected in method blank MB 460-427072/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene failed the recovery criteria low for the MS of sample 460-130538-19 in batch 460-427072. Chloroethane failed the recovery criteria high.

1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene failed the recovery criteria low for the MSD of sample 460-130538-19 in batch 460-427072. Bromomethane failed the recovery criteria high.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples SB-2 (1-2)-170327 (460-130404-1), SB-2 (8-9)-170327 (460-130404-2), SB-4 (5-6)-170327 (460-130404-4), SB-4 (6-7)-170327 (460-130404-5), SB-3 (1-2)-170327 (460-130404-7) and SB-3 (5-6)-170327 (460-130404-8) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 03/29/2017 and analyzed on 03/30/2017 and 03/31/2017.

The continuing calibration verification (CCV) analyzed in batch 460-427162 was outside the method criteria for the following analyte(s): 4-Methylphenol, 2,2'-oxybis[1-chloropropane], Pentachlorophenol and 4-Nitroaniline. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-427026 was outside the method criteria for the following analyte(s): Benzaldehyde, Phenol, Hexachlorocyclopentadiene and 2-Fluorophenol (Surr). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-427031 was outside the method criteria for the following analyte(s): 4-Methylphenol, 2,4,6-Tribromophenol (Surr), 2,2'-oxybis[1-chloropropane] and 2-Nitroaniline. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-427323 was outside the method criteria for the following analyte(s): Di-n-butyl phthalate 2,2'-oxybis[1-chloropropane] Fluoranthene 4-Nitroaniline <AffectedAnalytes>. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for five analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 460-426922 had one analyte (4-Chloroaniline) outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Nitrobenzene failed the recovery criteria high for LCS 460-426926/2-A.

The following laboratory control sample (LCS) associated with batch 460-426922 contained one acid/base surrogate outside acceptance limits:(LCS 460-426922/3-A). The laboratory's SOP allows one acid and/or one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

The following laboratory control sample (LCS) associated with batch 460-426923 contained one acid/base surrogate outside acceptance limits:(LCS 460-426923/2-A). The laboratory's SOP allows one acid and/or one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

The following laboratory control sample (LCS) associated with batch 460-426923 contained one acid and one base surrogates outside acceptance limits:(LCS 460-426923/3-A). The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Nitrobenzene-d5 (Surr) and Phenol-d5 (Surr) failed the surrogate recovery criteria high for LCS 460-426926/2-A and LCS 460-426926/3-A.

Several analytes failed the recovery criteria low for the MS/MSD of sample SB-2 (1-2)-170327MS/MSD (460-130404-1) in batch 460-427026. 2-Chlorophenol, Bis(2-chloroethyl)ether and Phenol exceeded the RPD limit.

Several analytes failed the recovery criteria low for the MS/MSD of sample SB-4 (5-6)-170327MS/MSD (460-130404-4) in batch 460-427031. Pentachlorophenol exceeded the RPD limit.

Several analytes failed the recovery criteria low for the MS/MSD of sample SB-3 (1-2)-170327MS/MSD (460-130404-7) in batch 460-427323. Fluoranthene failed the recovery criteria high. Fluoranthene and Pyrene exceeded the RPD limit.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples GW-2-170327 (460-130404-3) and GW-4-170327 (460-130404-6) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 03/29/2017 and analyzed on 03/30/2017.

The continuing calibration verification (CCV) analyzed in batch 460-427021 was outside the method criteria for the following analyte(s): Indeno[1,2,3-cd]pyrene, Pyrene and 4-Nitroaniline. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All quality control parameters were within the acceptance limits.

PESTICIDES

Samples SB-2 (1-2)-170327 (460-130404-1), SB-2 (8-9)-170327 (460-130404-2), SB-4 (5-6)-170327 (460-130404-4), SB-4 (6-7)-170327 (460-130404-5), SB-3 (1-2)-170327 (460-130404-7) and SB-3 (5-6)-170327 (460-130404-8) were analyzed for pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared and analyzed on 03/29/2017.

Dieldrin failed the recovery criteria low for the MS of sample SB-2 (1-2)-170327MS (460-130404-1) in batch 460-426902.

Dieldrin exceeded the RPD limit for the MSD of sample SB-2 (1-2)-170327MSD (460-130404-1) in batch 460-426902.

Refer to the QC report for details.

No other difficulties were encountered during the pesticides analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Samples GW-2-170327 (460-130404-3) and GW-4-170327 (460-130404-6) were analyzed for pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 03/29/2017 and analyzed on 03/30/2017.

No difficulties were encountered during the pesticides analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples SB-2 (1-2)-170327 (460-130404-1), SB-2 (8-9)-170327 (460-130404-2), SB-4 (5-6)-170327 (460-130404-4), SB-4 (6-7)-170327 (460-130404-5), SB-3 (1-2)-170327 (460-130404-7) and SB-3 (5-6)-170327 (460-130404-8) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared and analyzed on 03/29/2017.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples GW-2-170327 (460-130404-3) and GW-4-170327 (460-130404-6) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 03/29/2017 and analyzed on 03/30/2017.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS

Samples SB-2 (1-2)-170327 (460-130404-1), SB-2 (8-9)-170327 (460-130404-2), SB-4 (5-6)-170327 (460-130404-4), SB-4 (6-7)-170327 (460-130404-5), SB-3 (1-2)-170327 (460-130404-7) and SB-3 (5-6)-170327 (460-130404-8) were analyzed for total metals in accordance with EPA SW-846 Methods 6010C. The samples were prepared and analyzed on 03/30/2017.

The laboratory control sample (LCSSRM) for prep batch 427091 recovered outside control limits for the following analyte: Thallium. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Several analytes failed the recovery criteria low for the MS of sample SB-2 (1-2)-170327MS (460-130404-1) in batch 460-427224.

Arsenic, Copper, Iron, Lead and Manganese exceeded the RPD limit for the duplicate of sample SB-2 (1-2)-170327DU (460-130404-1).

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

Samples SB-2 (1-2)-170327 (460-130404-1)[4X], SB-2 (8-9)-170327 (460-130404-2)[4X], SB-4 (5-6)-170327 (460-130404-4)[4X], SB-4 (6-7)-170327 (460-130404-5)[4X], SB-3 (1-2)-170327 (460-130404-7)[4X] and SB-3 (5-6)-170327 (460-130404-8)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

DISSOLVED METALS

Samples GW-2-170327 (460-130404-3) and GW-4-170327 (460-130404-6) were analyzed for dissolved metals in accordance with EPA SW-846 Method 6020A. The samples were prepared on 03/31/2017 and analyzed on 03/31/2017 and 04/01/2017.

Calcium and Sodium failed the recovery criteria low for the MS of sample GW-2-170327MS (460-130404-3) in batch 460-427617. Manganese failed the recovery criteria high.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the dissolved metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS

Samples GW-2-170327 (460-130404-3) and GW-4-170327 (460-130404-6) were analyzed for total metals in accordance with EPA SW-846 Method 6020A. The samples were prepared and analyzed on 03/31/2017.

Calcium and Sodium failed the recovery criteria high for the MS of sample GW-4-170327MS (460-130404-6) in batch 460-427617.

Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples SB-2 (1-2)-170327 (460-130404-1), SB-2 (8-9)-170327 (460-130404-2), SB-4 (5-6)-170327 (460-130404-4), SB-4 (6-7)-170327 (460-130404-5), SB-3 (1-2)-170327 (460-130404-7) and SB-3 (5-6)-170327 (460-130404-8) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 03/29/2017.

Mercury failed the recovery criteria low for the MS of sample 460-130440-3 in batch 460-426912.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the

spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the Hg analysis.

All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY

Samples GW-2-170327 (460-130404-3) and GW-4-170327 (460-130404-6) were analyzed for dissolved mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 03/30/2017.

No difficulties were encountered during the dissolved Hg analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples GW-2-170327 (460-130404-3) and GW-4-170327 (460-130404-6) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 03/30/2017.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples SB-2 (1-2)-170327 (460-130404-1), SB-2 (8-9)-170327 (460-130404-2), SB-4 (5-6)-170327 (460-130404-4), SB-4 (6-7)-170327 (460-130404-5), SB-3 (1-2)-170327 (460-130404-7) and SB-3 (5-6)-170327 (460-130404-8) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 03/29/2017.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130404-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|-----------------------------|--------------------------|--------|-----------|--------------------|-------|----------|
| 460-130404-1 | SB-2 (1-2)-170327 | | | | | |
| Acetone | | 2.4 | J B | 5.1 | ug/Kg | 8260C |
| m-Xylene & p-Xylene | | 0.12 | J B | 1.0 | ug/Kg | 8260C |
| Benzo[a]anthracene | | 130 | | 39 | ug/Kg | 8270D |
| Benzo[a]pyrene | | 120 | | 39 | ug/Kg | 8270D |
| Benzo[b]fluoranthene | | 140 | | 39 | ug/Kg | 8270D |
| Benzo[g,h,i]perylene | | 80 | J | 390 | ug/Kg | 8270D |
| Benzo[k]fluoranthene | | 67 | | 39 | ug/Kg | 8270D |
| Bis(2-ethylhexyl) phthalate | | 40 | J | 390 | ug/Kg | 8270D |
| Chrysene | | 140 | J | 390 | ug/Kg | 8270D |
| Dibenz(a,h)anthracene | | 22 | J | 39 | ug/Kg | 8270D |
| Fluoranthene | | 190 | J | 390 | ug/Kg | 8270D |
| Indeno[1,2,3-cd]pyrene | | 74 | | 39 | ug/Kg | 8270D |
| Isophorone | | 170 | | 160 | ug/Kg | 8270D |
| Phenanthrene | | 91 | J | 390 | ug/Kg | 8270D |
| Pyrene | | 230 | J | 390 | ug/Kg | 8270D |
| Aluminum | | 10800 | | 47.6 | mg/Kg | 6010C |
| Arsenic | | 2.7 | J | 3.6 | mg/Kg | 6010C |
| Barium | | 94.6 | | 47.6 | mg/Kg | 6010C |
| Beryllium | | 0.45 | J | 0.48 | mg/Kg | 6010C |
| Calcium | | 5460 | | 1190 | mg/Kg | 6010C |
| Chromium | | 24.8 | | 2.4 | mg/Kg | 6010C |
| Cobalt | | 8.5 | J | 11.9 | mg/Kg | 6010C |
| Copper | | 34.0 | | 6.0 | mg/Kg | 6010C |
| Iron | | 20900 | | 35.7 | mg/Kg | 6010C |
| Lead | | 45.0 | | 2.4 | mg/Kg | 6010C |
| Magnesium | | 4000 | | 1190 | mg/Kg | 6010C |
| Manganese | | 403 | | 3.6 | mg/Kg | 6010C |
| Nickel | | 17.8 | | 9.5 | mg/Kg | 6010C |
| Potassium | | 2150 | | 1190 | mg/Kg | 6010C |
| Sodium | | 109 | J | 1190 | mg/Kg | 6010C |
| Vanadium | | 27.1 | | 11.9 | mg/Kg | 6010C |
| Zinc | | 66.4 | | 7.1 | mg/Kg | 6010C |
| Mercury | | 0.057 | | 0.020 | mg/Kg | 7471B |
| Percent Moisture | | 16.0 | | 1.0 | % | Moisture |
| Percent Solids | | 84.0 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130404-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|---------------------------------------|--------------------------|--------|-----------|--------------------|-------|----------|
| 460-130404-2 | SB-2 (8-9)-170327 | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 0.50 | J | 1.0 | ug/Kg | 8260C |
| Acetone | | 3.9 | J B | 5.1 | ug/Kg | 8260C |
| m-Xylene & p-Xylene | | 0.20 | J B | 1.0 | ug/Kg | 8260C |
| 2-Methylnaphthalene | | 10 | J | 390 | ug/Kg | 8270D |
| Acenaphthene | | 10 | J | 390 | ug/Kg | 8270D |
| Benzo[a]anthracene | | 110 | | 39 | ug/Kg | 8270D |
| Benzo[a]pyrene | | 100 | | 39 | ug/Kg | 8270D |
| Benzo[b]fluoranthene | | 130 | | 39 | ug/Kg | 8270D |
| Benzo[g,h,i]perylene | | 56 | J | 390 | ug/Kg | 8270D |
| Benzo[k]fluoranthene | | 60 | | 39 | ug/Kg | 8270D |
| Chrysene | | 110 | J | 390 | ug/Kg | 8270D |
| Dibenz(a,h)anthracene | | 20 | J | 39 | ug/Kg | 8270D |
| Fluoranthene | | 180 | J | 390 | ug/Kg | 8270D |
| Indeno[1,2,3-cd]pyrene | | 52 | | 39 | ug/Kg | 8270D |
| Isophorone | | 65 | J | 160 | ug/Kg | 8270D |
| Naphthalene | | 38 | J | 390 | ug/Kg | 8270D |
| Phenanthrene | | 110 | J | 390 | ug/Kg | 8270D |
| Pyrene | | 160 | J | 390 | ug/Kg | 8270D |
| Aluminum | | 14000 | | 45.7 | mg/Kg | 6010C |
| Arsenic | | 1.1 | J | 3.4 | mg/Kg | 6010C |
| Barium | | 140 | | 45.7 | mg/Kg | 6010C |
| Calcium | | 3850 | | 1140 | mg/Kg | 6010C |
| Chromium | | 30.0 | | 2.3 | mg/Kg | 6010C |
| Cobalt | | 14.5 | | 11.4 | mg/Kg | 6010C |
| Copper | | 46.4 | | 5.7 | mg/Kg | 6010C |
| Iron | | 25600 | | 34.3 | mg/Kg | 6010C |
| Lead | | 31.7 | | 2.3 | mg/Kg | 6010C |
| Magnesium | | 7780 | | 1140 | mg/Kg | 6010C |
| Manganese | | 761 | | 3.4 | mg/Kg | 6010C |
| Nickel | | 31.3 | | 9.1 | mg/Kg | 6010C |
| Potassium | | 6730 | | 1140 | mg/Kg | 6010C |
| Sodium | | 204 | J | 1140 | mg/Kg | 6010C |
| Vanadium | | 35.1 | | 11.4 | mg/Kg | 6010C |
| Zinc | | 79.7 | | 6.9 | mg/Kg | 6010C |
| Mercury | | 0.44 | | 0.019 | mg/Kg | 7471B |
| Percent Moisture | | 15.0 | | 1.0 | % | Moisture |
| Percent Solids | | 85.0 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130404-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|--------------------|--------|-----------|--------------------|-------|--------|
| 460-130404-3 | GW-2-170327 | | | | | |
| Acetone | | 1.9 | J B | 5.0 | ug/L | 8260C |
| Benzene | | 0.25 | J | 1.0 | ug/L | 8260C |
| Chloroform | | 1.0 | | 1.0 | ug/L | 8260C |
| cis-1,2-Dichloroethene | | 9.5 | | 1.0 | ug/L | 8260C |
| Dichlorodifluoromethane | | 2.5 | | 1.0 | ug/L | 8260C |
| Methyl tert-butyl ether | | 0.16 | J | 1.0 | ug/L | 8260C |
| m-Xylene & p-Xylene | | 0.67 | J | 1.0 | ug/L | 8260C |
| Tetrachloroethene | | 11 | | 1.0 | ug/L | 8260C |
| Toluene | | 0.86 | J | 1.0 | ug/L | 8260C |
| trans-1,2-Dichloroethene | | 0.19 | J | 1.0 | ug/L | 8260C |
| Trichloroethene | | 2.7 | | 1.0 | ug/L | 8260C |
| Vinyl chloride | | 0.20 | J | 1.0 | ug/L | 8260C |
| Aluminum | | 2570 | | 40.0 | ug/L | 6020A |
| Antimony | | 0.75 | J | 2.0 | ug/L | 6020A |
| Arsenic | | 1.3 | J | 2.0 | ug/L | 6020A |
| Barium | | 148 | | 4.0 | ug/L | 6020A |
| Calcium | | 169000 | | 200 | ug/L | 6020A |
| Chromium | | 5.8 | | 4.0 | ug/L | 6020A |
| Cobalt | | 11.0 | | 4.0 | ug/L | 6020A |
| Copper | | 12.1 | | 4.0 | ug/L | 6020A |
| Iron | | 4510 | | 120 | ug/L | 6020A |
| Lead | | 12.3 | | 1.2 | ug/L | 6020A |
| Magnesium | | 55300 | | 200 | ug/L | 6020A |
| Manganese | | 5700 | | 8.0 | ug/L | 6020A |
| Nickel | | 12.4 | | 4.0 | ug/L | 6020A |
| Potassium | | 14600 | | 200 | ug/L | 6020A |
| Sodium | | 287000 | | 200 | ug/L | 6020A |
| Vanadium | | 7.2 | | 4.0 | ug/L | 6020A |
| Zinc | | 16.4 | | 16.0 | ug/L | 6020A |
| <i>Dissolved</i> | | | | | | |
| Aluminum | | 130 | | 40.0 | ug/L | 6020A |
| Barium | | 116 | | 4.0 | ug/L | 6020A |
| Calcium | | 156000 | | 200 | ug/L | 6020A |
| Cobalt | | 8.2 | | 4.0 | ug/L | 6020A |
| Copper | | 1.7 | J | 4.0 | ug/L | 6020A |
| Iron | | 352 | | 120 | ug/L | 6020A |
| Lead | | 1.5 | | 1.2 | ug/L | 6020A |
| Magnesium | | 52100 | | 200 | ug/L | 6020A |
| Manganese | | 5240 | | 8.0 | ug/L | 6020A |
| Nickel | | 7.7 | | 4.0 | ug/L | 6020A |
| Potassium | | 13000 | | 200 | ug/L | 6020A |
| Sodium | | 272000 | | 200 | ug/L | 6020A |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130404-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|--------------------------|--------|-----------|--------------------|-------|----------|
| 460-130404-4 | SB-4 (5-6)-170327 | | | | | |
| 2-Butanone (MEK) | | 1.1 | J | 5.3 | ug/Kg | 8260C |
| Acetone | | 13 | B | 5.3 | ug/Kg | 8260C |
| m-Xylene & p-Xylene | | 0.13 | J B | 1.1 | ug/Kg | 8260C |
| 2-Methylnaphthalene | | 9.6 | J | 410 | ug/Kg | 8270D |
| Acenaphthene | | 41 | J | 410 | ug/Kg | 8270D |
| Anthracene | | 100 | J | 410 | ug/Kg | 8270D |
| Benzo[a]anthracene | | 310 | | 41 | ug/Kg | 8270D |
| Benzo[a]pyrene | | 260 | | 41 | ug/Kg | 8270D |
| Benzo[b]fluoranthene | | 340 | | 41 | ug/Kg | 8270D |
| Benzo[g,h,i]perylene | | 210 | J | 410 | ug/Kg | 8270D |
| Benzo[k]fluoranthene | | 150 | | 41 | ug/Kg | 8270D |
| Carbazole | | 57 | J | 410 | ug/Kg | 8270D |
| Chrysene | | 310 | J | 410 | ug/Kg | 8270D |
| Dibenz(a,h)anthracene | | 56 | | 41 | ug/Kg | 8270D |
| Dibenzofuran | | 33 | J | 410 | ug/Kg | 8270D |
| Fluoranthene | | 730 | | 410 | ug/Kg | 8270D |
| Fluorene | | 40 | J | 410 | ug/Kg | 8270D |
| Indeno[1,2,3-cd]pyrene | | 220 | | 41 | ug/Kg | 8270D |
| Isophorone | | 84 | J | 170 | ug/Kg | 8270D |
| Naphthalene | | 22 | J | 410 | ug/Kg | 8270D |
| Phenanthrene | | 550 | | 410 | ug/Kg | 8270D |
| Pyrene | | 600 | | 410 | ug/Kg | 8270D |
| Aluminum | | 8880 | | 49.3 | mg/Kg | 6010C |
| Arsenic | | 1.4 | J | 3.7 | mg/Kg | 6010C |
| Barium | | 80.2 | | 49.3 | mg/Kg | 6010C |
| Calcium | | 9090 | | 1230 | mg/Kg | 6010C |
| Chromium | | 21.7 | | 2.5 | mg/Kg | 6010C |
| Cobalt | | 7.6 | J | 12.3 | mg/Kg | 6010C |
| Copper | | 29.3 | | 6.2 | mg/Kg | 6010C |
| Iron | | 15800 | | 36.9 | mg/Kg | 6010C |
| Lead | | 34.0 | | 2.5 | mg/Kg | 6010C |
| Magnesium | | 4700 | | 1230 | mg/Kg | 6010C |
| Manganese | | 261 | | 3.7 | mg/Kg | 6010C |
| Nickel | | 17.2 | | 9.9 | mg/Kg | 6010C |
| Potassium | | 2830 | | 1230 | mg/Kg | 6010C |
| Sodium | | 162 | J | 1230 | mg/Kg | 6010C |
| Vanadium | | 23.9 | | 12.3 | mg/Kg | 6010C |
| Zinc | | 50.2 | | 7.4 | mg/Kg | 6010C |
| Mercury | | 0.30 | | 0.019 | mg/Kg | 7471B |
| Percent Moisture | | 20.4 | | 1.0 | % | Moisture |
| Percent Solids | | 79.6 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130404-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|--------------------------|--------|-----------|--------------------|-------|----------|
| 460-130404-5 | SB-4 (6-7)-170327 | | | | | |
| 2-Butanone (MEK) | | 5.5 | | 5.3 | ug/Kg | 8260C |
| Acetone | | 24 | B | 5.3 | ug/Kg | 8260C |
| m-Xylene & p-Xylene | | 0.15 | J B | 1.1 | ug/Kg | 8260C |
| Toluene | | 0.21 | J | 1.1 | ug/Kg | 8260C |
| 2-Methylnaphthalene | | 13 | J | 420 | ug/Kg | 8270D |
| 4-Methylphenol | | 18 | J | 420 | ug/Kg | 8270D |
| Acenaphthene | | 24 | J | 420 | ug/Kg | 8270D |
| Acenaphthylene | | 13 | J | 420 | ug/Kg | 8270D |
| Anthracene | | 51 | J | 420 | ug/Kg | 8270D |
| Benzo[a]anthracene | | 160 | | 42 | ug/Kg | 8270D |
| Benzo[a]pyrene | | 130 | | 42 | ug/Kg | 8270D |
| Benzo[b]fluoranthene | | 200 | | 42 | ug/Kg | 8270D |
| Benzo[g,h,i]perylene | | 55 | J | 420 | ug/Kg | 8270D |
| Benzo[k]fluoranthene | | 75 | | 42 | ug/Kg | 8270D |
| Carbazole | | 34 | J | 420 | ug/Kg | 8270D |
| Chrysene | | 170 | J | 420 | ug/Kg | 8270D |
| Dibenzofuran | | 22 | J | 420 | ug/Kg | 8270D |
| Fluoranthene | | 390 | J | 420 | ug/Kg | 8270D |
| Fluorene | | 24 | J | 420 | ug/Kg | 8270D |
| Indeno[1,2,3-cd]pyrene | | 65 | | 42 | ug/Kg | 8270D |
| Naphthalene | | 31 | J | 420 | ug/Kg | 8270D |
| Phenanthrene | | 220 | J | 420 | ug/Kg | 8270D |
| Pyrene | | 180 | J | 420 | ug/Kg | 8270D |
| Aluminum | | 13500 | | 51.2 | mg/Kg | 6010C |
| Arsenic | | 2.5 | J | 3.8 | mg/Kg | 6010C |
| Barium | | 153 | | 51.2 | mg/Kg | 6010C |
| Beryllium | | 0.44 | J | 0.51 | mg/Kg | 6010C |
| Calcium | | 2880 | | 1280 | mg/Kg | 6010C |
| Chromium | | 24.3 | | 2.6 | mg/Kg | 6010C |
| Cobalt | | 8.5 | J | 12.8 | mg/Kg | 6010C |
| Copper | | 19.1 | | 6.4 | mg/Kg | 6010C |
| Iron | | 19500 | | 38.4 | mg/Kg | 6010C |
| Lead | | 51.0 | | 2.6 | mg/Kg | 6010C |
| Magnesium | | 3070 | | 1280 | mg/Kg | 6010C |
| Manganese | | 409 | | 3.8 | mg/Kg | 6010C |
| Nickel | | 16.6 | | 10.2 | mg/Kg | 6010C |
| Potassium | | 1920 | | 1280 | mg/Kg | 6010C |
| Sodium | | 124 | J | 1280 | mg/Kg | 6010C |
| Vanadium | | 25.2 | | 12.8 | mg/Kg | 6010C |
| Zinc | | 56.9 | | 7.7 | mg/Kg | 6010C |
| Mercury | | 0.12 | | 0.020 | mg/Kg | 7471B |
| Percent Moisture | | 21.8 | | 1.0 | % | Moisture |
| Percent Solids | | 78.2 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130404-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|--------------------|--------|-----------|--------------------|-------|--------|
| 460-130404-6 | GW-4-170327 | | | | | |
| Acetone | | 1.3 | J B | 5.0 | ug/L | 8260C |
| cis-1,2-Dichloroethene | | 2.5 | | 1.0 | ug/L | 8260C |
| Dichlorodifluoromethane | | 0.92 | J | 1.0 | ug/L | 8260C |
| Tetrachloroethene | | 1.2 | | 1.0 | ug/L | 8260C |
| Toluene | | 0.30 | J | 1.0 | ug/L | 8260C |
| Trichloroethene | | 0.32 | J | 1.0 | ug/L | 8260C |
| Naphthalene | | 1.9 | J | 10 | ug/L | 8270D |
| Phenanthrene | | 1.5 | J | 10 | ug/L | 8270D |
| Aluminum | | 783 | | 40.0 | ug/L | 6020A |
| Arsenic | | 0.71 | J | 2.0 | ug/L | 6020A |
| Barium | | 77.3 | | 4.0 | ug/L | 6020A |
| Calcium | | 99700 | | 200 | ug/L | 6020A |
| Chromium | | 4.5 | | 4.0 | ug/L | 6020A |
| Cobalt | | 4.9 | | 4.0 | ug/L | 6020A |
| Copper | | 6.4 | | 4.0 | ug/L | 6020A |
| Iron | | 1520 | | 120 | ug/L | 6020A |
| Lead | | 1.8 | | 1.2 | ug/L | 6020A |
| Magnesium | | 34700 | | 200 | ug/L | 6020A |
| Manganese | | 2530 | | 8.0 | ug/L | 6020A |
| Nickel | | 11.2 | | 4.0 | ug/L | 6020A |
| Potassium | | 11800 | | 200 | ug/L | 6020A |
| Sodium | | 111000 | | 200 | ug/L | 6020A |
| Vanadium | | 3.9 | J | 4.0 | ug/L | 6020A |
| Zinc | | 9.7 | J | 16.0 | ug/L | 6020A |
| <i>Dissolved</i> | | | | | | |
| Aluminum | | 43.9 | | 40.0 | ug/L | 6020A |
| Barium | | 72.7 | | 4.0 | ug/L | 6020A |
| Calcium | | 103000 | | 200 | ug/L | 6020A |
| Chromium | | 1.3 | J | 4.0 | ug/L | 6020A |
| Cobalt | | 4.3 | | 4.0 | ug/L | 6020A |
| Copper | | 1.4 | J | 4.0 | ug/L | 6020A |
| Iron | | 135 | | 120 | ug/L | 6020A |
| Magnesium | | 36300 | | 200 | ug/L | 6020A |
| Manganese | | 2580 | | 8.0 | ug/L | 6020A |
| Nickel | | 9.8 | | 4.0 | ug/L | 6020A |
| Potassium | | 12000 | | 200 | ug/L | 6020A |
| Sodium | | 112000 | | 200 | ug/L | 6020A |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130404-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|--------------------------|--------|-----------|--------------------|-------|----------|
| 460-130404-7 | SB-3 (1-2)-170327 | | | | | |
| Acetone | | 3.8 | J B | 5.0 | ug/Kg | 8260C |
| 2-Methylnaphthalene | | 13 | J | 370 | ug/Kg | 8270D |
| Acenaphthene | | 70 | J | 370 | ug/Kg | 8270D |
| Acenaphthylene | | 24 | J | 370 | ug/Kg | 8270D |
| Anthracene | | 190 | J | 370 | ug/Kg | 8270D |
| Benzo[a]anthracene | | 560 | | 37 | ug/Kg | 8270D |
| Benzo[a]pyrene | | 480 | | 37 | ug/Kg | 8270D |
| Benzo[b]fluoranthene | | 660 | | 37 | ug/Kg | 8270D |
| Benzo[g,h,i]perylene | | 240 | J | 370 | ug/Kg | 8270D |
| Benzo[k]fluoranthene | | 230 | | 37 | ug/Kg | 8270D |
| Carbazole | | 55 | J | 370 | ug/Kg | 8270D |
| Chrysene | | 560 | | 370 | ug/Kg | 8270D |
| Dibenz(a,h)anthracene | | 59 | | 37 | ug/Kg | 8270D |
| Dibenzofuran | | 44 | J | 370 | ug/Kg | 8270D |
| Di-n-butyl phthalate | | 37 | J | 370 | ug/Kg | 8270D |
| Fluoranthene | | 1200 | | 370 | ug/Kg | 8270D |
| Fluorene | | 62 | J | 370 | ug/Kg | 8270D |
| Indeno[1,2,3-cd]pyrene | | 240 | | 37 | ug/Kg | 8270D |
| Naphthalene | | 31 | J | 370 | ug/Kg | 8270D |
| Phenanthrene | | 810 | | 370 | ug/Kg | 8270D |
| Pyrene | | 850 | | 370 | ug/Kg | 8270D |
| Aluminum | | 13200 | | 44.7 | mg/Kg | 6010C |
| Arsenic | | 3.6 | | 3.4 | mg/Kg | 6010C |
| Barium | | 134 | | 44.7 | mg/Kg | 6010C |
| Beryllium | | 0.38 | J | 0.45 | mg/Kg | 6010C |
| Calcium | | 6880 | | 1120 | mg/Kg | 6010C |
| Chromium | | 28.1 | | 2.2 | mg/Kg | 6010C |
| Cobalt | | 12.2 | | 11.2 | mg/Kg | 6010C |
| Copper | | 41.2 | | 5.6 | mg/Kg | 6010C |
| Iron | | 27200 | | 33.5 | mg/Kg | 6010C |
| Lead | | 109 | | 2.2 | mg/Kg | 6010C |
| Magnesium | | 6060 | | 1120 | mg/Kg | 6010C |
| Manganese | | 324 | | 3.4 | mg/Kg | 6010C |
| Nickel | | 26.2 | | 8.9 | mg/Kg | 6010C |
| Potassium | | 4690 | | 1120 | mg/Kg | 6010C |
| Sodium | | 179 | J | 1120 | mg/Kg | 6010C |
| Vanadium | | 38.5 | | 11.2 | mg/Kg | 6010C |
| Zinc | | 108 | | 6.7 | mg/Kg | 6010C |
| Mercury | | 0.47 | | 0.019 | mg/Kg | 7471B |
| Percent Moisture | | 11.4 | | 1.0 | % | Moisture |
| Percent Solids | | 88.6 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130404-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|--------------------------|--------|-----------|--------------------|-------|----------|
| 460-130404-8 | SB-3 (5-6)-170327 | | | | | |
| 2-Butanone (MEK) | | 1.5 | J | 5.2 | ug/Kg | 8260C |
| Acetone | | 17 | B | 5.2 | ug/Kg | 8260C |
| Carbon disulfide | | 0.53 | J | 1.0 | ug/Kg | 8260C |
| m-Xylene & p-Xylene | | 0.17 | J B | 1.0 | ug/Kg | 8260C |
| Benzo[a]anthracene | | 73 | | 40 | ug/Kg | 8270D |
| Benzo[a]pyrene | | 64 | | 40 | ug/Kg | 8270D |
| Benzo[b]fluoranthene | | 79 | | 40 | ug/Kg | 8270D |
| Benzo[g,h,i]perylene | | 40 | J | 400 | ug/Kg | 8270D |
| Benzo[k]fluoranthene | | 38 | J | 40 | ug/Kg | 8270D |
| Carbazole | | 11 | J | 400 | ug/Kg | 8270D |
| Chrysene | | 76 | J | 400 | ug/Kg | 8270D |
| Fluoranthene | | 130 | J | 400 | ug/Kg | 8270D |
| Fluorene | | 9.1 | J | 400 | ug/Kg | 8270D |
| Indeno[1,2,3-cd]pyrene | | 42 | | 40 | ug/Kg | 8270D |
| Naphthalene | | 13 | J | 400 | ug/Kg | 8270D |
| Phenanthrene | | 95 | J | 400 | ug/Kg | 8270D |
| Pyrene | | 120 | J | 400 | ug/Kg | 8270D |
| Aluminum | | 10400 | | 47.4 | mg/Kg | 6010C |
| Arsenic | | 1.6 | J | 3.6 | mg/Kg | 6010C |
| Barium | | 75.5 | | 47.4 | mg/Kg | 6010C |
| Calcium | | 4240 | | 1190 | mg/Kg | 6010C |
| Chromium | | 18.2 | | 2.4 | mg/Kg | 6010C |
| Cobalt | | 6.5 | J | 11.9 | mg/Kg | 6010C |
| Copper | | 19.8 | | 5.9 | mg/Kg | 6010C |
| Iron | | 14700 | | 35.6 | mg/Kg | 6010C |
| Lead | | 76.3 | | 2.4 | mg/Kg | 6010C |
| Magnesium | | 2790 | | 1190 | mg/Kg | 6010C |
| Manganese | | 250 | | 3.6 | mg/Kg | 6010C |
| Nickel | | 12.9 | | 9.5 | mg/Kg | 6010C |
| Potassium | | 1640 | | 1190 | mg/Kg | 6010C |
| Sodium | | 153 | J | 1190 | mg/Kg | 6010C |
| Vanadium | | 21.2 | | 11.9 | mg/Kg | 6010C |
| Zinc | | 58.0 | | 7.1 | mg/Kg | 6010C |
| Mercury | | 0.19 | | 0.020 | mg/Kg | 7471B |
| Percent Moisture | | 17.3 | | 1.0 | % | Moisture |
| Percent Solids | | 82.7 | | 1.0 | % | Moisture |

METHOD SUMMARY

Client: AKRF Inc

Job Number: 460-130404-1

| Description | Lab Location | Method | Preparation Method |
|--|--------------|--------------|--------------------|
| Matrix: Solid | | | |
| Volatile Organic Compounds by GC/MS | TAL EDI | SW846 8260C | |
| Closed System Purge and Trap | TAL EDI | | SW846 5035 |
| Semivolatile Organic Compounds (GC/MS) | TAL EDI | SW846 8270D | |
| Microwave Extraction | TAL EDI | | SW846 3546 |
| Organochlorine Pesticides (GC) | TAL EDI | SW846 8081B | |
| Microwave Extraction | TAL EDI | | SW846 3546 |
| Polychlorinated Biphenyls (PCBs) by Gas Chromatography | TAL EDI | SW846 8082A | |
| Microwave Extraction | TAL EDI | | SW846 3546 |
| Metals (ICP) | TAL EDI | SW846 6010C | |
| Preparation, Metals | TAL EDI | | SW846 3050B |
| Mercury (CVAA) | TAL EDI | SW846 7471B | |
| Preparation, Mercury | TAL EDI | | SW846 7471B |
| Percent Moisture | TAL EDI | EPA Moisture | |
| Matrix: Water | | | |
| Volatile Organic Compounds by GC/MS | TAL EDI | SW846 8260C | |
| Purge and Trap | TAL EDI | | SW846 5030C |
| Semivolatile Organic Compounds (GC/MS) | TAL EDI | SW846 8270D | |
| Liquid-Liquid Extraction (Separatory Funnel) | TAL EDI | | SW846 3510C |
| Organochlorine Pesticides (GC) | TAL EDI | SW846 8081B | |
| Liquid-Liquid Extraction (Separatory Funnel) | TAL EDI | | SW846 3510C |
| Polychlorinated Biphenyls (PCBs) by Gas Chromatography | TAL EDI | SW846 8082A | |
| Liquid-Liquid Extraction (Separatory Funnel) | TAL EDI | | SW846 3510C |
| Metals (ICP/MS) | TAL EDI | SW846 6020A | |
| Preparation, Total Metals | TAL EDI | | SW846 3010A |
| Metals (ICP/MS) | TAL EDI | SW846 6020A | |
| Preparation, Total Metals | TAL EDI | | SW846 3010A |
| Sample Filtration, Field | | | FIELD_FLTRD |
| Mercury (CVAA) | TAL EDI | SW846 7470A | |
| Preparation, Mercury | TAL EDI | | SW846 7470A |
| Mercury (CVAA) | TAL EDI | SW846 7470A | |
| Preparation, Mercury | TAL EDI | | SW846 7470A |
| Sample Filtration, Field | | | FIELD_FLTRD |

Lab References:

TAL EDI = TestAmerica Edison

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: AKRF Inc

Job Number: 460-130404-1

| Method | Analyst | Analyst ID |
|---------------|------------------------------|-------------------|
| SW846 8260C | Desai, Saurab | SZD |
| SW846 8260C | Tupayachi, Audberto | AAT |
| SW846 8270D | Boykin, Carol B | CBB |
| SW846 8270D | Crocco, Michael | MMC |
| SW846 8081B | Kapoor, Sita | SAK |
| SW846 8081B | Mulani, Heta X | HXM |
| SW846 8082A | Patel, Jignesh | JHP |
| SW846 6010C | Chang, Churn Der | CDC |
| SW846 6020A | Patel, Purva H | PHP |
| SW846 7470A | Sheikh, Razia B | RBS |
| SW846 7471B | Staib, Thomas | TJS |
| EPA Moisture | Villadarez, Gerson Timothy S | GTSV |

SAMPLE SUMMARY

Client: AKRF Inc

Job Number: 460-130404-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|----------------------|-------------------------|----------------------|------------------------------|-------------------------------|
| 460-130404-1 | SB-2 (1-2)-170327 | Solid | 03/27/2017 1010 | 03/27/2017 1820 |
| 460-130404-2 | SB-2 (8-9)-170327 | Solid | 03/27/2017 1030 | 03/27/2017 1820 |
| 460-130404-3 | GW-2-170327 | Water | 03/27/2017 1115 | 03/27/2017 1820 |
| 460-130404-4 | SB-4 (5-6)-170327 | Solid | 03/27/2017 1215 | 03/27/2017 1820 |
| 460-130404-5 | SB-4 (6-7)-170327 | Solid | 03/27/2017 1230 | 03/27/2017 1820 |
| 460-130404-6 | GW-4-170327 | Water | 03/27/2017 1330 | 03/27/2017 1820 |
| 460-130404-7 | SB-3 (1-2)-170327 | Solid | 03/27/2017 1415 | 03/27/2017 1820 |
| 460-130404-8 | SB-3 (5-6)-170327 | Solid | 03/27/2017 1445 | 03/27/2017 1820 |
| 460-130404-9TB | TB-170327 | Water | 03/27/2017 1445 | 03/27/2017 1820 |

SAMPLE RESULTS

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (1-2)-170327

Lab Sample ID: 460-130404-1

Date Sampled: 03/27/2017 1010

Client Matrix: Solid

% Moisture: 16.0

Date Received: 03/27/2017 1820

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427483 | Instrument ID: CVOAMS9 |
| Prep Method: 5035 | Prep Batch: 460-426725 | Lab File ID: K65815.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.84 g |
| Analysis Date: 03/31/2017 2102 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/28/2017 1428 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|-----|
| 1,1,1-Trichloroethane | | 1.0 | U | 0.39 | 1.0 |
| 1,1,2,2-Tetrachloroethane | | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 1.0 | U | 0.45 | 1.0 |
| 1,1,2-Trichloroethane | | 1.0 | U | 0.29 | 1.0 |
| 1,1-Dichloroethane | | 1.0 | U | 0.35 | 1.0 |
| 1,1-Dichloroethene | | 1.0 | U | 0.42 | 1.0 |
| 1,2,3-Trichlorobenzene | | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | | 1.0 | U | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | | 1.0 | U | 0.48 | 1.0 |
| 1,2-Dichlorobenzene | | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | | 20 | U | 6.5 | 20 |
| 2-Butanone (MEK) | | 5.1 | U | 0.79 | 5.1 |
| 2-Hexanone | | 5.1 | U | 0.96 | 5.1 |
| 4-Methyl-2-pentanone (MIBK) | | 5.1 | U | 2.3 | 5.1 |
| Acetone | | 2.4 | J B | 1.1 | 5.1 |
| Benzene | | 1.0 | U | 0.20 | 1.0 |
| Bromoform | | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | | 1.0 | U | 0.33 | 1.0 |
| Carbon disulfide | | 1.0 | U | 0.44 | 1.0 |
| Carbon tetrachloride | | 1.0 | U | 0.44 | 1.0 |
| Chlorobenzene | | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | | 1.0 | U | 0.36 | 1.0 |
| Chloroform | | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | | 1.0 | U | 0.39 | 1.0 |
| cis-1,2-Dichloroethene | | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | | 1.0 | U | 0.47 | 1.0 |
| Dichlorobromomethane | | 1.0 | U | 0.39 | 1.0 |
| Dichlorodifluoromethane | | 1.0 | U | 0.33 | 1.0 |
| Ethylbenzene | | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | | 5.1 | U | 0.92 | 5.1 |
| Methyl tert-butyl ether | | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | | 1.0 | U | 0.51 | 1.0 |
| Methylene Chloride | | 1.0 | U | 0.33 | 1.0 |
| m-Xylene & p-Xylene | | 0.12 | J B | 0.11 | 1.0 |
| o-Xylene | | 1.0 | U | 0.16 | 1.0 |
| Styrene | | 1.0 | U | 0.15 | 1.0 |
| Tetrachloroethene | | 1.0 | U | 0.29 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (8-9)-170327

Lab Sample ID: 460-130404-2

Date Sampled: 03/27/2017 1030

Client Matrix: Solid

% Moisture: 15.0

Date Received: 03/27/2017 1820

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427483 | Instrument ID: CVOAMS9 |
| Prep Method: 5035 | Prep Batch: 460-426725 | Lab File ID: K65816.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.82 g |
| Analysis Date: 03/31/2017 2126 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/28/2017 1429 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|-----|
| 1,1,1-Trichloroethane | | 1.0 | U | 0.38 | 1.0 |
| 1,1,2,2-Tetrachloroethane | | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 0.50 | J | 0.44 | 1.0 |
| 1,1,2-Trichloroethane | | 1.0 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | | 1.0 | U | 0.34 | 1.0 |
| 1,1-Dichloroethene | | 1.0 | U | 0.41 | 1.0 |
| 1,2,3-Trichlorobenzene | | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | | 1.0 | U | 0.32 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | | 1.0 | U | 0.48 | 1.0 |
| 1,2-Dichlorobenzene | | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | | 20 | U | 6.5 | 20 |
| 2-Butanone (MEK) | | 5.1 | U | 0.78 | 5.1 |
| 2-Hexanone | | 5.1 | U | 0.95 | 5.1 |
| 4-Methyl-2-pentanone (MIBK) | | 5.1 | U | 2.2 | 5.1 |
| Acetone | | 3.9 | J B | 1.1 | 5.1 |
| Benzene | | 1.0 | U | 0.20 | 1.0 |
| Bromoform | | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | | 1.0 | U | 0.32 | 1.0 |
| Carbon disulfide | | 1.0 | U | 0.43 | 1.0 |
| Carbon tetrachloride | | 1.0 | U | 0.43 | 1.0 |
| Chlorobenzene | | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | | 1.0 | U | 0.35 | 1.0 |
| Chloroform | | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | | 1.0 | U | 0.38 | 1.0 |
| cis-1,2-Dichloroethene | | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | | 1.0 | U | 0.47 | 1.0 |
| Dichlorobromomethane | | 1.0 | U | 0.38 | 1.0 |
| Dichlorodifluoromethane | | 1.0 | U | 0.32 | 1.0 |
| Ethylbenzene | | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | | 5.1 | U | 0.91 | 5.1 |
| Methyl tert-butyl ether | | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | | 1.0 | U | 0.51 | 1.0 |
| Methylene Chloride | | 1.0 | U | 0.32 | 1.0 |
| m-Xylene & p-Xylene | | 0.20 | J B | 0.11 | 1.0 |
| o-Xylene | | 1.0 | U | 0.16 | 1.0 |
| Styrene | | 1.0 | U | 0.15 | 1.0 |
| Tetrachloroethene | | 1.0 | U | 0.28 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (8-9)-170327

Lab Sample ID: 460-130404-2

Date Sampled: 03/27/2017 1030

Client Matrix: Solid

% Moisture: 15.0

Date Received: 03/27/2017 1820

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427483 | Instrument ID: CVOAMS9 |
| Prep Method: 5035 | Prep Batch: 460-426725 | Lab File ID: K65816.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.82 g |
| Analysis Date: 03/31/2017 2126 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/28/2017 1429 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|------|-----|
| Toluene | | 1.0 | U | 0.19 | 1.0 |
| trans-1,2-Dichloroethene | | 1.0 | U | 0.39 | 1.0 |
| trans-1,3-Dichloropropene | | 1.0 | U | 0.10 | 1.0 |
| Trichloroethene | | 1.0 | U | 0.26 | 1.0 |
| Trichlorofluoromethane | | 1.0 | U | 0.34 | 1.0 |
| Vinyl chloride | | 1.0 | U | 0.39 | 1.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 98 | | 78 - 135 |
| 4-Bromofluorobenzene | 107 | | 67 - 126 |
| Dibromofluoromethane (Surr) | 110 | | 61 - 149 |
| Toluene-d8 (Surr) | 99 | | 73 - 121 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-2-170327

Lab Sample ID: 460-130404-3

Date Sampled: 03/27/2017 1115

Client Matrix: Water

Date Received: 03/27/2017 1820

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427072 | Instrument ID: CVOAMS13 |
| Prep Method: 5030C | Prep Batch: N/A | Lab File ID: P25600.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/30/2017 1843 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 1843 | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------------------------------------|---------------|-----------|-------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.19 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.080 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.24 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.34 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.35 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.27 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.23 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.22 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.25 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.18 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dioxane | 50 | U | 8.7 | 50 |
| 2-Butanone (MEK) | 5.0 | U | 2.2 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.72 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 0.63 | 5.0 |
| Acetone | 1.9 | J B | 1.1 | 5.0 |
| Benzene | 0.25 | J | 0.090 | 1.0 |
| Bromoform | 1.0 | U | 0.18 | 1.0 |
| Bromomethane | 1.0 | U | 0.18 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.22 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.33 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.24 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.30 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.22 | 1.0 |
| Chloroethane | 1.0 | U * | 0.37 | 1.0 |
| Chloroform | 1.0 | | 0.22 | 1.0 |
| Chloromethane | 1.0 | U | 0.22 | 1.0 |
| cis-1,2-Dichloroethene | 9.5 | | 0.26 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.16 | 1.0 |
| Cyclohexane | 1.0 | U | 0.26 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.15 | 1.0 |
| Dichlorodifluoromethane | 2.5 | | 0.14 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.30 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.19 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.32 | 1.0 |
| Methyl acetate | 5.0 | U | 0.58 | 5.0 |
| Methyl tert-butyl ether | 0.16 | J | 0.13 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.22 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.21 | 1.0 |
| m-Xylene & p-Xylene | 0.67 | J | 0.28 | 1.0 |
| o-Xylene | 1.0 | U | 0.32 | 1.0 |
| Styrene | 1.0 | U | 0.17 | 1.0 |
| Tetrachloroethene | 11 | | 0.12 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-2-170327

Lab Sample ID: 460-130404-3

Date Sampled: 03/27/2017 1115

Client Matrix: Water

Date Received: 03/27/2017 1820

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427072 | Instrument ID: CVOAMS13 |
| Prep Method: 5030C | Prep Batch: N/A | Lab File ID: P25600.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/30/2017 1843 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 1843 | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------------------------|---------------|-----------|-------|-----|
| Toluene | 0.86 | J | 0.25 | 1.0 |
| trans-1,2-Dichloroethene | 0.19 | J | 0.18 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.19 | 1.0 |
| Trichloroethene | 2.7 | | 0.22 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.15 | 1.0 |
| Vinyl chloride | 0.20 | J | 0.060 | 1.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 108 | | 74 - 132 |
| 4-Bromofluorobenzene | 85 | | 77 - 124 |
| Dibromofluoromethane (Surr) | 92 | | 72 - 131 |
| Toluene-d8 (Surr) | 95 | | 80 - 120 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-4 (5-6)-170327

Lab Sample ID: 460-130404-4

Date Sampled: 03/27/2017 1215

Client Matrix: Solid

% Moisture: 20.4

Date Received: 03/27/2017 1820

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427483 | Instrument ID: CVOAMS9 |
| Prep Method: 5035 | Prep Batch: 460-426725 | Lab File ID: K65817.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.89 g |
| Analysis Date: 03/31/2017 2150 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/28/2017 1429 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|-----|
| 1,1,1-Trichloroethane | | 1.1 | U | 0.41 | 1.1 |
| 1,1,2,2-Tetrachloroethane | | 1.1 | U | 0.18 | 1.1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 1.1 | U | 0.47 | 1.1 |
| 1,1,2-Trichloroethane | | 1.1 | U | 0.30 | 1.1 |
| 1,1-Dichloroethane | | 1.1 | U | 0.36 | 1.1 |
| 1,1-Dichloroethene | | 1.1 | U | 0.44 | 1.1 |
| 1,2,3-Trichlorobenzene | | 1.1 | U | 0.12 | 1.1 |
| 1,2,4-Trichlorobenzene | | 1.1 | U | 0.34 | 1.1 |
| 1,2-Dibromo-3-Chloropropane | | 1.1 | U | 0.50 | 1.1 |
| 1,2-Dichlorobenzene | | 1.1 | U | 0.15 | 1.1 |
| 1,2-Dichloroethane | | 1.1 | U | 0.12 | 1.1 |
| 1,2-Dichloropropane | | 1.1 | U | 0.18 | 1.1 |
| 1,3-Dichlorobenzene | | 1.1 | U | 0.13 | 1.1 |
| 1,4-Dichlorobenzene | | 1.1 | U | 0.14 | 1.1 |
| 1,4-Dioxane | | 21 | U | 6.8 | 21 |
| 2-Butanone (MEK) | | 1.1 | J | 0.82 | 5.3 |
| 2-Hexanone | | 5.3 | U | 1.0 | 5.3 |
| 4-Methyl-2-pentanone (MIBK) | | 5.3 | U | 2.4 | 5.3 |
| Acetone | | 13 | B | 1.1 | 5.3 |
| Benzene | | 1.1 | U | 0.21 | 1.1 |
| Bromoform | | 1.1 | U | 0.14 | 1.1 |
| Bromomethane | | 1.1 | U | 0.34 | 1.1 |
| Carbon disulfide | | 1.1 | U | 0.46 | 1.1 |
| Carbon tetrachloride | | 1.1 | U | 0.46 | 1.1 |
| Chlorobenzene | | 1.1 | U | 0.15 | 1.1 |
| Chlorobromomethane | | 1.1 | U | 0.18 | 1.1 |
| Chlorodibromomethane | | 1.1 | U | 0.16 | 1.1 |
| Chloroethane | | 1.1 | U | 0.37 | 1.1 |
| Chloroform | | 1.1 | U | 0.22 | 1.1 |
| Chloromethane | | 1.1 | U | 0.41 | 1.1 |
| cis-1,2-Dichloroethene | | 1.1 | U | 0.23 | 1.1 |
| cis-1,3-Dichloropropene | | 1.1 | U | 0.16 | 1.1 |
| Cyclohexane | | 1.1 | U | 0.49 | 1.1 |
| Dichlorobromomethane | | 1.1 | U | 0.41 | 1.1 |
| Dichlorodifluoromethane | | 1.1 | U | 0.34 | 1.1 |
| Ethylbenzene | | 1.1 | U | 0.19 | 1.1 |
| Ethylene Dibromide | | 1.1 | U | 0.13 | 1.1 |
| Isopropylbenzene | | 1.1 | U | 0.18 | 1.1 |
| Methyl acetate | | 5.3 | U | 0.96 | 5.3 |
| Methyl tert-butyl ether | | 1.1 | U | 0.18 | 1.1 |
| Methylcyclohexane | | 1.1 | U | 0.53 | 1.1 |
| Methylene Chloride | | 1.1 | U | 0.34 | 1.1 |
| m-Xylene & p-Xylene | | 0.13 | J B | 0.12 | 1.1 |
| o-Xylene | | 1.1 | U | 0.17 | 1.1 |
| Styrene | | 1.1 | U | 0.16 | 1.1 |
| Tetrachloroethene | | 1.1 | U | 0.30 | 1.1 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-4 (6-7)-170327

Lab Sample ID: 460-130404-5

Date Sampled: 03/27/2017 1230

Client Matrix: Solid

% Moisture: 21.8

Date Received: 03/27/2017 1820

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427483 | Instrument ID: CVOAMS9 |
| Prep Method: 5035 | Prep Batch: 460-426725 | Lab File ID: K65818.D |
| Dilution: 1.0 | | Initial Weight/Volume: 6.06 g |
| Analysis Date: 03/31/2017 2214 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/28/2017 1430 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|-----|
| 1,1,1-Trichloroethane | | 1.1 | U | 0.40 | 1.1 |
| 1,1,2,2-Tetrachloroethane | | 1.1 | U | 0.18 | 1.1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 1.1 | U | 0.46 | 1.1 |
| 1,1,2-Trichloroethane | | 1.1 | U | 0.30 | 1.1 |
| 1,1-Dichloroethane | | 1.1 | U | 0.36 | 1.1 |
| 1,1-Dichloroethene | | 1.1 | U | 0.43 | 1.1 |
| 1,2,3-Trichlorobenzene | | 1.1 | U | 0.12 | 1.1 |
| 1,2,4-Trichlorobenzene | | 1.1 | U | 0.34 | 1.1 |
| 1,2-Dibromo-3-Chloropropane | | 1.1 | U | 0.50 | 1.1 |
| 1,2-Dichlorobenzene | | 1.1 | U | 0.15 | 1.1 |
| 1,2-Dichloroethane | | 1.1 | U | 0.12 | 1.1 |
| 1,2-Dichloropropane | | 1.1 | U | 0.18 | 1.1 |
| 1,3-Dichlorobenzene | | 1.1 | U | 0.13 | 1.1 |
| 1,4-Dichlorobenzene | | 1.1 | U | 0.14 | 1.1 |
| 1,4-Dioxane | | 21 | U | 6.7 | 21 |
| 2-Butanone (MEK) | | 5.5 | | 0.81 | 5.3 |
| 2-Hexanone | | 5.3 | U | 0.99 | 5.3 |
| 4-Methyl-2-pentanone (MIBK) | | 5.3 | U | 2.3 | 5.3 |
| Acetone | | 24 | B | 1.1 | 5.3 |
| Benzene | | 1.1 | U | 0.21 | 1.1 |
| Bromoform | | 1.1 | U | 0.14 | 1.1 |
| Bromomethane | | 1.1 | U | 0.34 | 1.1 |
| Carbon disulfide | | 1.1 | U | 0.45 | 1.1 |
| Carbon tetrachloride | | 1.1 | U | 0.45 | 1.1 |
| Chlorobenzene | | 1.1 | U | 0.15 | 1.1 |
| Chlorobromomethane | | 1.1 | U | 0.18 | 1.1 |
| Chlorodibromomethane | | 1.1 | U | 0.16 | 1.1 |
| Chloroethane | | 1.1 | U | 0.37 | 1.1 |
| Chloroform | | 1.1 | U | 0.22 | 1.1 |
| Chloromethane | | 1.1 | U | 0.40 | 1.1 |
| cis-1,2-Dichloroethene | | 1.1 | U | 0.23 | 1.1 |
| cis-1,3-Dichloropropene | | 1.1 | U | 0.16 | 1.1 |
| Cyclohexane | | 1.1 | U | 0.49 | 1.1 |
| Dichlorobromomethane | | 1.1 | U | 0.40 | 1.1 |
| Dichlorodifluoromethane | | 1.1 | U | 0.34 | 1.1 |
| Ethylbenzene | | 1.1 | U | 0.19 | 1.1 |
| Ethylene Dibromide | | 1.1 | U | 0.13 | 1.1 |
| Isopropylbenzene | | 1.1 | U | 0.18 | 1.1 |
| Methyl acetate | | 5.3 | U | 0.95 | 5.3 |
| Methyl tert-butyl ether | | 1.1 | U | 0.18 | 1.1 |
| Methylcyclohexane | | 1.1 | U | 0.53 | 1.1 |
| Methylene Chloride | | 1.1 | U | 0.34 | 1.1 |
| m-Xylene & p-Xylene | | 0.15 | J B | 0.12 | 1.1 |
| o-Xylene | | 1.1 | U | 0.17 | 1.1 |
| Styrene | | 1.1 | U | 0.16 | 1.1 |
| Tetrachloroethene | | 1.1 | U | 0.30 | 1.1 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-4-170327

Lab Sample ID: 460-130404-6

Date Sampled: 03/27/2017 1330

Client Matrix: Water

Date Received: 03/27/2017 1820

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427072 | Instrument ID: CVOAMS13 |
| Prep Method: 5030C | Prep Batch: N/A | Lab File ID: P25601.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/30/2017 1909 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 1909 | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------------------------------------|---------------|-----------|-------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.19 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.080 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.24 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.34 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.35 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.27 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.23 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.22 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.25 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.18 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dioxane | 50 | U | 8.7 | 50 |
| 2-Butanone (MEK) | 5.0 | U | 2.2 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.72 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 0.63 | 5.0 |
| Acetone | 1.3 | J B | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.090 | 1.0 |
| Bromoform | 1.0 | U | 0.18 | 1.0 |
| Bromomethane | 1.0 | U | 0.18 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.22 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.33 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.24 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.30 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.22 | 1.0 |
| Chloroethane | 1.0 | U * | 0.37 | 1.0 |
| Chloroform | 1.0 | U | 0.22 | 1.0 |
| Chloromethane | 1.0 | U | 0.22 | 1.0 |
| cis-1,2-Dichloroethene | 2.5 | | 0.26 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.16 | 1.0 |
| Cyclohexane | 1.0 | U | 0.26 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.15 | 1.0 |
| Dichlorodifluoromethane | 0.92 | J | 0.14 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.30 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.19 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.32 | 1.0 |
| Methyl acetate | 5.0 | U | 0.58 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.13 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.22 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.21 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.28 | 1.0 |
| o-Xylene | 1.0 | U | 0.32 | 1.0 |
| Styrene | 1.0 | U | 0.17 | 1.0 |
| Tetrachloroethene | 1.2 | | 0.12 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-4-170327

Lab Sample ID: 460-130404-6

Date Sampled: 03/27/2017 1330

Client Matrix: Water

Date Received: 03/27/2017 1820

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427072 | Instrument ID: CVOAMS13 |
| Prep Method: 5030C | Prep Batch: N/A | Lab File ID: P25601.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/30/2017 1909 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 1909 | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------------------------|---------------|-----------|-------|-----|
| Toluene | 0.30 | J | 0.25 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.18 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.19 | 1.0 |
| Trichloroethene | 0.32 | J | 0.22 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.15 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.060 | 1.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 111 | | 74 - 132 |
| 4-Bromofluorobenzene | 87 | | 77 - 124 |
| Dibromofluoromethane (Surr) | 94 | | 72 - 131 |
| Toluene-d8 (Surr) | 97 | | 80 - 120 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (1-2)-170327

Lab Sample ID: 460-130404-7

Date Sampled: 03/27/2017 1415

Client Matrix: Solid

% Moisture: 11.4

Date Received: 03/27/2017 1820

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427483 | Instrument ID: CVOAMS9 |
| Prep Method: 5035 | Prep Batch: 460-426725 | Lab File ID: K65819.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.67 g |
| Analysis Date: 03/31/2017 2238 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/28/2017 1431 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|------|
| 1,1,1-Trichloroethane | | 0.99 | U | 0.38 | 0.99 |
| 1,1,2,2-Tetrachloroethane | | 0.99 | U | 0.17 | 0.99 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 0.99 | U | 0.44 | 0.99 |
| 1,1,2-Trichloroethane | | 0.99 | U | 0.28 | 0.99 |
| 1,1-Dichloroethane | | 0.99 | U | 0.34 | 0.99 |
| 1,1-Dichloroethene | | 0.99 | U | 0.41 | 0.99 |
| 1,2,3-Trichlorobenzene | | 0.99 | U | 0.11 | 0.99 |
| 1,2,4-Trichlorobenzene | | 0.99 | U | 0.32 | 0.99 |
| 1,2-Dibromo-3-Chloropropane | | 0.99 | U | 0.47 | 0.99 |
| 1,2-Dichlorobenzene | | 0.99 | U | 0.14 | 0.99 |
| 1,2-Dichloroethane | | 0.99 | U | 0.11 | 0.99 |
| 1,2-Dichloropropane | | 0.99 | U | 0.17 | 0.99 |
| 1,3-Dichlorobenzene | | 0.99 | U | 0.12 | 0.99 |
| 1,4-Dichlorobenzene | | 0.99 | U | 0.13 | 0.99 |
| 1,4-Dioxane | | 20 | U | 6.4 | 20 |
| 2-Butanone (MEK) | | 5.0 | U | 0.77 | 5.0 |
| 2-Hexanone | | 5.0 | U | 0.94 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | | 5.0 | U | 2.2 | 5.0 |
| Acetone | | 3.8 | J B | 1.1 | 5.0 |
| Benzene | | 0.99 | U | 0.20 | 0.99 |
| Bromoform | | 0.99 | U | 0.13 | 0.99 |
| Bromomethane | | 0.99 | U | 0.32 | 0.99 |
| Carbon disulfide | | 0.99 | U | 0.43 | 0.99 |
| Carbon tetrachloride | | 0.99 | U | 0.43 | 0.99 |
| Chlorobenzene | | 0.99 | U | 0.14 | 0.99 |
| Chlorobromomethane | | 0.99 | U | 0.17 | 0.99 |
| Chlorodibromomethane | | 0.99 | U | 0.15 | 0.99 |
| Chloroethane | | 0.99 | U | 0.35 | 0.99 |
| Chloroform | | 0.99 | U | 0.21 | 0.99 |
| Chloromethane | | 0.99 | U | 0.38 | 0.99 |
| cis-1,2-Dichloroethene | | 0.99 | U | 0.22 | 0.99 |
| cis-1,3-Dichloropropene | | 0.99 | U | 0.15 | 0.99 |
| Cyclohexane | | 0.99 | U | 0.46 | 0.99 |
| Dichlorobromomethane | | 0.99 | U | 0.38 | 0.99 |
| Dichlorodifluoromethane | | 0.99 | U | 0.32 | 0.99 |
| Ethylbenzene | | 0.99 | U | 0.18 | 0.99 |
| Ethylene Dibromide | | 0.99 | U | 0.12 | 0.99 |
| Isopropylbenzene | | 0.99 | U | 0.17 | 0.99 |
| Methyl acetate | | 5.0 | U | 0.90 | 5.0 |
| Methyl tert-butyl ether | | 0.99 | U | 0.17 | 0.99 |
| Methylcyclohexane | | 0.99 | U | 0.50 | 0.99 |
| Methylene Chloride | | 0.99 | U | 0.32 | 0.99 |
| m-Xylene & p-Xylene | | 0.99 | U | 0.11 | 0.99 |
| o-Xylene | | 0.99 | U | 0.16 | 0.99 |
| Styrene | | 0.99 | U | 0.15 | 0.99 |
| Tetrachloroethene | | 0.99 | U | 0.28 | 0.99 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (1-2)-170327

Lab Sample ID: 460-130404-7

Date Sampled: 03/27/2017 1415

Client Matrix: Solid

% Moisture: 11.4

Date Received: 03/27/2017 1820

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427483 | Instrument ID: CVOAMS9 |
| Prep Method: 5035 | Prep Batch: 460-426725 | Lab File ID: K65819.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.67 g |
| Analysis Date: 03/31/2017 2238 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/28/2017 1431 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-------|------|
| Toluene | | 0.99 | U | 0.19 | 0.99 |
| trans-1,2-Dichloroethene | | 0.99 | U | 0.39 | 0.99 |
| trans-1,3-Dichloropropene | | 0.99 | U | 0.099 | 0.99 |
| Trichloroethene | | 0.99 | U | 0.26 | 0.99 |
| Trichlorofluoromethane | | 0.99 | U | 0.34 | 0.99 |
| Vinyl chloride | | 0.99 | U | 0.39 | 0.99 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 99 | | 78 - 135 |
| 4-Bromofluorobenzene | 109 | | 67 - 126 |
| Dibromofluoromethane (Surr) | 111 | | 61 - 149 |
| Toluene-d8 (Surr) | 100 | | 73 - 121 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (5-6)-170327

Lab Sample ID: 460-130404-8

Date Sampled: 03/27/2017 1445

Client Matrix: Solid

% Moisture: 17.3

Date Received: 03/27/2017 1820

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427483 | Instrument ID: CVOAMS9 |
| Prep Method: 5035 | Prep Batch: 460-426725 | Lab File ID: K65820.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.83 g |
| Analysis Date: 03/31/2017 2302 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/28/2017 1432 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|-----|
| 1,1,1-Trichloroethane | | 1.0 | U | 0.39 | 1.0 |
| 1,1,2,2-Tetrachloroethane | | 1.0 | U | 0.18 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 1.0 | U | 0.46 | 1.0 |
| 1,1,2-Trichloroethane | | 1.0 | U | 0.29 | 1.0 |
| 1,1-Dichloroethane | | 1.0 | U | 0.35 | 1.0 |
| 1,1-Dichloroethene | | 1.0 | U | 0.43 | 1.0 |
| 1,2,3-Trichlorobenzene | | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | | 1.0 | U | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | | 1.0 | U | 0.49 | 1.0 |
| 1,2-Dichlorobenzene | | 1.0 | U | 0.15 | 1.0 |
| 1,2-Dichloroethane | | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | | 1.0 | U | 0.18 | 1.0 |
| 1,3-Dichlorobenzene | | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | | 21 | U | 6.6 | 21 |
| 2-Butanone (MEK) | | 1.5 | J | 0.80 | 5.2 |
| 2-Hexanone | | 5.2 | U | 0.97 | 5.2 |
| 4-Methyl-2-pentanone (MIBK) | | 5.2 | U | 2.3 | 5.2 |
| Acetone | | 17 | B | 1.1 | 5.2 |
| Benzene | | 1.0 | U | 0.21 | 1.0 |
| Bromoform | | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | | 1.0 | U | 0.33 | 1.0 |
| Carbon disulfide | | 0.53 | J | 0.45 | 1.0 |
| Carbon tetrachloride | | 1.0 | U | 0.45 | 1.0 |
| Chlorobenzene | | 1.0 | U | 0.15 | 1.0 |
| Chlorobromomethane | | 1.0 | U | 0.18 | 1.0 |
| Chlorodibromomethane | | 1.0 | U | 0.16 | 1.0 |
| Chloroethane | | 1.0 | U | 0.36 | 1.0 |
| Chloroform | | 1.0 | U | 0.22 | 1.0 |
| Chloromethane | | 1.0 | U | 0.39 | 1.0 |
| cis-1,2-Dichloroethene | | 1.0 | U | 0.23 | 1.0 |
| cis-1,3-Dichloropropene | | 1.0 | U | 0.16 | 1.0 |
| Cyclohexane | | 1.0 | U | 0.48 | 1.0 |
| Dichlorobromomethane | | 1.0 | U | 0.39 | 1.0 |
| Dichlorodifluoromethane | | 1.0 | U | 0.33 | 1.0 |
| Ethylbenzene | | 1.0 | U | 0.19 | 1.0 |
| Ethylene Dibromide | | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | | 1.0 | U | 0.18 | 1.0 |
| Methyl acetate | | 5.2 | U | 0.93 | 5.2 |
| Methyl tert-butyl ether | | 1.0 | U | 0.18 | 1.0 |
| Methylcyclohexane | | 1.0 | U | 0.52 | 1.0 |
| Methylene Chloride | | 1.0 | U | 0.33 | 1.0 |
| m-Xylene & p-Xylene | | 0.17 | J B | 0.11 | 1.0 |
| o-Xylene | | 1.0 | U | 0.17 | 1.0 |
| Styrene | | 1.0 | U | 0.16 | 1.0 |
| Tetrachloroethene | | 1.0 | U | 0.29 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (5-6)-170327

Lab Sample ID: 460-130404-8

Date Sampled: 03/27/2017 1445

Client Matrix: Solid

% Moisture: 17.3

Date Received: 03/27/2017 1820

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427483 | Instrument ID: CVOAMS9 |
| Prep Method: 5035 | Prep Batch: 460-426725 | Lab File ID: K65820.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.83 g |
| Analysis Date: 03/31/2017 2302 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/28/2017 1432 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|------|-----|
| Toluene | | 1.0 | U | 0.20 | 1.0 |
| trans-1,2-Dichloroethene | | 1.0 | U | 0.40 | 1.0 |
| trans-1,3-Dichloropropene | | 1.0 | U | 0.10 | 1.0 |
| Trichloroethene | | 1.0 | U | 0.27 | 1.0 |
| Trichlorofluoromethane | | 1.0 | U | 0.35 | 1.0 |
| Vinyl chloride | | 1.0 | U | 0.40 | 1.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 100 | | 78 - 135 |
| 4-Bromofluorobenzene | 110 | | 67 - 126 |
| Dibromofluoromethane (Surr) | 108 | | 61 - 149 |
| Toluene-d8 (Surr) | 100 | | 73 - 121 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: TB-170327

Lab Sample ID: 460-130404-9TB

Date Sampled: 03/27/2017 1445

Client Matrix: Water

Date Received: 03/27/2017 1820

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427072 | Instrument ID: CVOAMS13 |
| Prep Method: 5030C | Prep Batch: N/A | Lab File ID: P25593.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/30/2017 1546 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 1546 | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------------------------------------|---------------|-----------|-------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.19 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.080 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.24 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.34 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.35 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.27 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.23 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.22 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.25 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.18 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dioxane | 50 | U | 8.7 | 50 |
| 2-Butanone (MEK) | 5.0 | U | 2.2 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.72 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 0.63 | 5.0 |
| Acetone | 5.0 | U | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.090 | 1.0 |
| Bromoform | 1.0 | U | 0.18 | 1.0 |
| Bromomethane | 1.0 | U | 0.18 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.22 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.33 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.24 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.30 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.22 | 1.0 |
| Chloroethane | 1.0 | U * | 0.37 | 1.0 |
| Chloroform | 1.0 | U | 0.22 | 1.0 |
| Chloromethane | 1.0 | U | 0.22 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.26 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.16 | 1.0 |
| Cyclohexane | 1.0 | U | 0.26 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.15 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.14 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.30 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.19 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.32 | 1.0 |
| Methyl acetate | 5.0 | U | 0.58 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.13 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.22 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.21 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.28 | 1.0 |
| o-Xylene | 1.0 | U | 0.32 | 1.0 |
| Styrene | 1.0 | U | 0.17 | 1.0 |
| Tetrachloroethene | 1.0 | U | 0.12 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: TB-170327

Lab Sample ID: 460-130404-9TB

Date Sampled: 03/27/2017 1445

Client Matrix: Water

Date Received: 03/27/2017 1820

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427072 | Instrument ID: CVOAMS13 |
| Prep Method: 5030C | Prep Batch: N/A | Lab File ID: P25593.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/30/2017 1546 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 1546 | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------------------------|---------------|-----------|-------|-----|
| Toluene | 1.0 | U | 0.25 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.18 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.19 | 1.0 |
| Trichloroethene | 1.0 | U | 0.22 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.15 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.060 | 1.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 111 | | 74 - 132 |
| 4-Bromofluorobenzene | 86 | | 77 - 124 |
| Dibromofluoromethane (Surr) | 91 | | 72 - 131 |
| Toluene-d8 (Surr) | 95 | | 80 - 120 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (1-2)-170327

Lab Sample ID: 460-130404-1

Date Sampled: 03/27/2017 1010

Client Matrix: Solid

% Moisture: 16.0

Date Received: 03/27/2017 1820

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427026 | Instrument ID: CBNAMS5 |
| Prep Method: 3546 | Prep Batch: 460-426922 | Lab File ID: x24101.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0247 g |
| Analysis Date: 03/30/2017 0448 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1217 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 390 | U | 34 | 390 |
| 1,2,4,5-Tetrachlorobenzene | | 390 | U | 29 | 390 |
| 2,2'-oxybis[1-chloropropane] | | 390 | U | 16 | 390 |
| 2,3,4,6-Tetrachlorophenol | | 390 | U | 37 | 390 |
| 2,4,5-Trichlorophenol | | 390 | U | 39 | 390 |
| 2,4,6-Trichlorophenol | | 160 | U | 11 | 160 |
| 2,4-Dichlorophenol | | 160 | U | 9.3 | 160 |
| 2,4-Dimethylphenol | | 390 | U | 86 | 390 |
| 2,4-Dinitrophenol | | 320 | U | 300 | 320 |
| 2,4-Dinitrotoluene | | 80 | U | 16 | 80 |
| 2,6-Dinitrotoluene | | 80 | U | 21 | 80 |
| 2-Chloronaphthalene | | 390 | U | 8.9 | 390 |
| 2-Chlorophenol | | 390 | U | 10 | 390 |
| 2-Methylnaphthalene | | 390 | U | 8.7 | 390 |
| 2-Methylphenol | | 390 | U | 17 | 390 |
| 2-Nitroaniline | | 390 | U | 13 | 390 |
| 2-Nitrophenol | | 390 | U | 13 | 390 |
| 3,3'-Dichlorobenzidine | | 160 | U | 44 | 160 |
| 3-Nitroaniline | | 390 | U | 12 | 390 |
| 4,6-Dinitro-2-methylphenol | | 320 | U | 100 | 320 |
| 4-Bromophenyl phenyl ether | | 390 | U | 12 | 390 |
| 4-Chloro-3-methylphenol | | 390 | U | 17 | 390 |
| 4-Chloroaniline | | 390 | U * | 10 | 390 |
| 4-Chlorophenyl phenyl ether | | 390 | U | 12 | 390 |
| 4-Methylphenol | | 390 | U | 11 | 390 |
| 4-Nitroaniline | | 390 | U | 15 | 390 |
| 4-Nitrophenol | | 800 | U | 190 | 800 |
| Acenaphthene | | 390 | U | 9.5 | 390 |
| Acenaphthylene | | 390 | U | 10 | 390 |
| Acetophenone | | 390 | U | 8.6 | 390 |
| Anthracene | | 390 | U | 37 | 390 |
| Atrazine | | 160 | U | 17 | 160 |
| Benzaldehyde | | 390 | U | 30 | 390 |
| Benzo[a]anthracene | | 130 | | 33 | 39 |
| Benzo[a]pyrene | | 120 | | 12 | 39 |
| Benzo[b]fluoranthene | | 140 | | 15 | 39 |
| Benzo[g,h,i]perylene | | 80 | J | 23 | 390 |
| Benzo[k]fluoranthene | | 67 | | 17 | 39 |
| Bis(2-chloroethoxy)methane | | 390 | U | 12 | 390 |
| Bis(2-chloroethyl)ether | | 39 | U | 9.3 | 39 |
| Bis(2-ethylhexyl) phthalate | | 40 | J | 15 | 390 |
| Butyl benzyl phthalate | | 390 | U | 12 | 390 |
| Caprolactam | | 390 | U | 28 | 390 |
| Carbazole | | 390 | U | 9.8 | 390 |
| Chrysene | | 140 | J | 11 | 390 |
| Dibenz(a,h)anthracene | | 22 | J | 20 | 39 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (1-2)-170327

Lab Sample ID: 460-130404-1

Date Sampled: 03/27/2017 1010

Client Matrix: Solid

% Moisture: 16.0

Date Received: 03/27/2017 1820

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427026 | Instrument ID: CBNAMS5 |
| Prep Method: 3546 | Prep Batch: 460-426922 | Lab File ID: x24101.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0247 g |
| Analysis Date: 03/30/2017 0448 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1217 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 390 | U | 12 | 390 |
| Diethyl phthalate | | 390 | U | 11 | 390 |
| Dimethyl phthalate | | 390 | U | 11 | 390 |
| Di-n-butyl phthalate | | 390 | U | 12 | 390 |
| Di-n-octyl phthalate | | 390 | U | 20 | 390 |
| Fluoranthene | | 190 | J | 12 | 390 |
| Fluorene | | 390 | U | 8.6 | 390 |
| Hexachlorobenzene | | 39 | U | 16 | 39 |
| Hexachlorobutadiene | | 80 | U | 11 | 80 |
| Hexachlorocyclopentadiene | | 390 | U | 24 | 390 |
| Hexachloroethane | | 39 | U | 14 | 39 |
| Indeno[1,2,3-cd]pyrene | | 74 | | 26 | 39 |
| Isophorone | | 170 | | 8.4 | 160 |
| Naphthalene | | 390 | U | 10 | 390 |
| Nitrobenzene | | 39 | U | 12 | 39 |
| N-Nitrosodi-n-propylamine | | 39 | U | 13 | 39 |
| N-Nitrosodiphenylamine | | 390 | U | 36 | 390 |
| Pentachlorophenol | | 320 | U | 48 | 320 |
| Phenanthrene | | 91 | J | 10 | 390 |
| Phenol | | 390 | U | 13 | 390 |
| Pyrene | | 230 | J | 18 | 390 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 31 | | 10 - 103 |
| 2-Fluorobiphenyl | 72 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 33 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 78 | | 37 - 94 |
| Phenol-d5 (Surr) | 46 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 80 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (8-9)-170327

Lab Sample ID: 460-130404-2

Date Sampled: 03/27/2017 1030

Client Matrix: Solid

% Moisture: 15.0

Date Received: 03/27/2017 1820

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427031 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-426923 | Lab File ID: L138546.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0247 g |
| Analysis Date: 03/30/2017 0453 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1222 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 390 | U | 33 | 390 |
| 1,2,4,5-Tetrachlorobenzene | | 390 | U | 29 | 390 |
| 2,2'-oxybis[1-chloropropane] | | 390 | U | 16 | 390 |
| 2,3,4,6-Tetrachlorophenol | | 390 | U | 37 | 390 |
| 2,4,5-Trichlorophenol | | 390 | U | 39 | 390 |
| 2,4,6-Trichlorophenol | | 160 | U | 11 | 160 |
| 2,4-Dichlorophenol | | 160 | U | 9.2 | 160 |
| 2,4-Dimethylphenol | | 390 | U | 85 | 390 |
| 2,4-Dinitrophenol | | 310 | U | 290 | 310 |
| 2,4-Dinitrotoluene | | 79 | U | 15 | 79 |
| 2,6-Dinitrotoluene | | 79 | U | 21 | 79 |
| 2-Chloronaphthalene | | 390 | U | 8.8 | 390 |
| 2-Chlorophenol | | 390 | U | 9.9 | 390 |
| 2-Methylnaphthalene | | 10 | J | 8.6 | 390 |
| 2-Methylphenol | | 390 | U | 17 | 390 |
| 2-Nitroaniline | | 390 | U | 13 | 390 |
| 2-Nitrophenol | | 390 | U | 13 | 390 |
| 3,3'-Dichlorobenzidine | | 160 | U | 43 | 160 |
| 3-Nitroaniline | | 390 | U | 12 | 390 |
| 4,6-Dinitro-2-methylphenol | | 310 | U | 100 | 310 |
| 4-Bromophenyl phenyl ether | | 390 | U | 12 | 390 |
| 4-Chloro-3-methylphenol | | 390 | U | 17 | 390 |
| 4-Chloroaniline | | 390 | U | 10 | 390 |
| 4-Chlorophenyl phenyl ether | | 390 | U | 12 | 390 |
| 4-Methylphenol | | 390 | U | 11 | 390 |
| 4-Nitroaniline | | 390 | U | 15 | 390 |
| 4-Nitrophenol | | 790 | U | 190 | 790 |
| Acenaphthene | | 10 | J | 9.4 | 390 |
| Acenaphthylene | | 390 | U | 10 | 390 |
| Acetophenone | | 390 | U | 8.5 | 390 |
| Anthracene | | 390 | U | 37 | 390 |
| Atrazine | | 160 | U | 17 | 160 |
| Benzaldehyde | | 390 | U | 30 | 390 |
| Benzo[a]anthracene | | 110 | | 32 | 39 |
| Benzo[a]pyrene | | 100 | | 12 | 39 |
| Benzo[b]fluoranthene | | 130 | | 15 | 39 |
| Benzo[g,h,i]perylene | | 56 | J | 22 | 390 |
| Benzo[k]fluoranthene | | 60 | | 17 | 39 |
| Bis(2-chloroethoxy)methane | | 390 | U | 12 | 390 |
| Bis(2-chloroethyl)ether | | 39 | U | 9.2 | 39 |
| Bis(2-ethylhexyl) phthalate | | 390 | U | 15 | 390 |
| Butyl benzyl phthalate | | 390 | U | 12 | 390 |
| Caprolactam | | 390 | U | 28 | 390 |
| Carbazole | | 390 | U | 9.6 | 390 |
| Chrysene | | 110 | J | 11 | 390 |
| Dibenz(a,h)anthracene | | 20 | J | 20 | 39 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (8-9)-170327

Lab Sample ID: 460-130404-2

Date Sampled: 03/27/2017 1030

Client Matrix: Solid

% Moisture: 15.0

Date Received: 03/27/2017 1820

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427031 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-426923 | Lab File ID: L138546.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0247 g |
| Analysis Date: 03/30/2017 0453 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1222 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 390 | U | 12 | 390 |
| Diethyl phthalate | | 390 | U | 11 | 390 |
| Dimethyl phthalate | | 390 | U | 11 | 390 |
| Di-n-butyl phthalate | | 390 | U | 12 | 390 |
| Di-n-octyl phthalate | | 390 | U | 20 | 390 |
| Fluoranthene | | 180 | J | 12 | 390 |
| Fluorene | | 390 | U | 8.5 | 390 |
| Hexachlorobenzene | | 39 | U | 16 | 39 |
| Hexachlorobutadiene | | 79 | U | 11 | 79 |
| Hexachlorocyclopentadiene | | 390 | U | 24 | 390 |
| Hexachloroethane | | 39 | U | 14 | 39 |
| Indeno[1,2,3-cd]pyrene | | 52 | | 26 | 39 |
| Isophorone | | 65 | J | 8.3 | 160 |
| Naphthalene | | 38 | J | 9.9 | 390 |
| Nitrobenzene | | 39 | U | 12 | 39 |
| N-Nitrosodi-n-propylamine | | 39 | U | 13 | 39 |
| N-Nitrosodiphenylamine | | 390 | U | 35 | 390 |
| Pentachlorophenol | | 310 | U | 47 | 310 |
| Phenanthrene | | 110 | J | 10 | 390 |
| Phenol | | 390 | U | 13 | 390 |
| Pyrene | | 160 | J | 18 | 390 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 52 | | 10 - 103 |
| 2-Fluorobiphenyl | 76 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 63 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 70 | | 37 - 94 |
| Phenol-d5 (Surr) | 74 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 91 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-2-170327

Lab Sample ID: 460-130404-3

Date Sampled: 03/27/2017 1115

Client Matrix: Water

Date Received: 03/27/2017 1820

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Prep Method: 3510C | Prep Batch: 460-426877 | Lab File ID: U333934.D |
| Dilution: 1.0 | | Initial Weight/Volume: 245 mL |
| Analysis Date: 03/30/2017 1003 | | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|------------------------------|---------------|-----------|-------|-----|
| 1,1'-Biphenyl | 10 | U | 0.64 | 10 |
| 1,2,4,5-Tetrachlorobenzene | 10 | U | 0.44 | 10 |
| 2,2'-oxybis[1-chloropropane] | 10 | U | 0.95 | 10 |
| 2,3,4,6-Tetrachlorophenol | 10 | U | 0.70 | 10 |
| 2,4,5-Trichlorophenol | 10 | U | 0.50 | 10 |
| 2,4,6-Trichlorophenol | 10 | U | 0.54 | 10 |
| 2,4-Dichlorophenol | 10 | U | 0.64 | 10 |
| 2,4-Dimethylphenol | 10 | U | 0.93 | 10 |
| 2,4-Dinitrophenol | 20 | U | 2.4 | 20 |
| 2,4-Dinitrotoluene | 2.0 | U | 1.1 | 2.0 |
| 2,6-Dinitrotoluene | 2.0 | U | 0.90 | 2.0 |
| 2-Chloronaphthalene | 10 | U | 0.62 | 10 |
| 2-Chlorophenol | 10 | U | 0.76 | 10 |
| 2-Methylnaphthalene | 10 | U | 0.90 | 10 |
| 2-Methylphenol | 10 | U | 1.3 | 10 |
| 2-Nitroaniline | 10 | U | 0.66 | 10 |
| 2-Nitrophenol | 10 | U | 0.60 | 10 |
| 3,3'-Dichlorobenzidine | 10 | U | 1.1 | 10 |
| 3-Nitroaniline | 10 | U | 0.84 | 10 |
| 4,6-Dinitro-2-methylphenol | 20 | U | 2.1 | 20 |
| 4-Bromophenyl phenyl ether | 10 | U | 1.0 | 10 |
| 4-Chloro-3-methylphenol | 10 | U | 0.78 | 10 |
| 4-Chloroaniline | 10 | U | 0.74 | 10 |
| 4-Chlorophenyl phenyl ether | 10 | U | 0.98 | 10 |
| 4-Methylphenol | 10 | U | 0.89 | 10 |
| 4-Nitroaniline | 10 | U | 0.49 | 10 |
| 4-Nitrophenol | 20 | U | 4.7 | 20 |
| Acenaphthene | 10 | U | 0.90 | 10 |
| Acenaphthylene | 10 | U | 0.66 | 10 |
| Acetophenone | 10 | U | 1.1 | 10 |
| Anthracene | 10 | U | 0.58 | 10 |
| Atrazine | 2.0 | U | 0.79 | 2.0 |
| Benzaldehyde | 10 | U | 0.88 | 10 |
| Benzo[a]anthracene | 1.0 | U | 0.56 | 1.0 |
| Benzo[a]pyrene | 1.0 | U | 0.16 | 1.0 |
| Benzo[b]fluoranthene | 1.0 | U | 0.45 | 1.0 |
| Benzo[g,h,i]perylene | 10 | U | 0.77 | 10 |
| Benzo[k]fluoranthene | 1.0 | U | 0.18 | 1.0 |
| Bis(2-chloroethoxy)methane | 10 | U | 0.70 | 10 |
| Bis(2-chloroethyl)ether | 1.0 | U | 0.12 | 1.0 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 0.73 | 2.0 |
| Butyl benzyl phthalate | 10 | U | 0.61 | 10 |
| Caprolactam | 10 | U | 1.1 | 10 |
| Carbazole | 10 | U | 0.87 | 10 |
| Chrysene | 2.0 | U | 0.68 | 2.0 |
| Dibenz(a,h)anthracene | 1.0 | U | 0.092 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-2-170327

Lab Sample ID: 460-130404-3

Date Sampled: 03/27/2017 1115

Client Matrix: Water

Date Received: 03/27/2017 1820

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Prep Method: 3510C | Prep Batch: 460-426877 | Lab File ID: U333934.D |
| Dilution: 1.0 | | Initial Weight/Volume: 245 mL |
| Analysis Date: 03/30/2017 1003 | | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------------------------|---------------|-----------|-------------------|-----|
| Dibenzofuran | 10 | U | 0.87 | 10 |
| Diethyl phthalate | 10 | U | 1.0 | 10 |
| Dimethyl phthalate | 10 | U | 1.0 | 10 |
| Di-n-butyl phthalate | 10 | U | 0.84 | 10 |
| Di-n-octyl phthalate | 10 | U | 0.70 | 10 |
| Fluoranthene | 10 | U | 0.73 | 10 |
| Fluorene | 10 | U | 0.82 | 10 |
| Hexachlorobenzene | 1.0 | U | 0.48 | 1.0 |
| Hexachlorobutadiene | 1.0 | U | 0.78 | 1.0 |
| Hexachlorocyclopentadiene | 10 | U | 0.62 | 10 |
| Hexachloroethane | 1.0 | U | 0.092 | 1.0 |
| Indeno[1,2,3-cd]pyrene | 1.0 | U | 0.21 | 1.0 |
| Isophorone | 10 | U | 0.68 | 10 |
| Naphthalene | 10 | U | 0.82 | 10 |
| Nitrobenzene | 1.0 | U | 0.50 | 1.0 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 0.85 | 1.0 |
| N-Nitrosodiphenylamine | 10 | U | 0.76 | 10 |
| Pentachlorophenol | 20 | U | 2.2 | 20 |
| Phenanthrene | 10 | U | 0.66 | 10 |
| Phenol | 10 | U | 0.42 | 10 |
| Pyrene | 10 | U | 0.85 | 10 |
| | | | | |
| Surrogate | %Rec | Qualifier | Acceptance Limits | |
| 2,4,6-Tribromophenol (Surr) | 87 | | 26 - 139 | |
| 2-Fluorobiphenyl | 85 | | 45 - 107 | |
| 2-Fluorophenol (Surr) | 41 | | 25 - 58 | |
| Nitrobenzene-d5 (Surr) | 87 | | 51 - 108 | |
| Phenol-d5 (Surr) | 25 | | 14 - 39 | |
| Terphenyl-d14 (Surr) | 82 | | 40 - 148 | |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-4 (5-6)-170327

Lab Sample ID: 460-130404-4

Date Sampled: 03/27/2017 1215

Client Matrix: Solid

% Moisture: 20.4

Date Received: 03/27/2017 1820

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427031 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-426923 | Lab File ID: L138555.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0258 g |
| Analysis Date: 03/30/2017 0819 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1222 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 410 | U | 35 | 410 |
| 1,2,4,5-Tetrachlorobenzene | | 410 | U | 31 | 410 |
| 2,2'-oxybis[1-chloropropane] | | 410 | U | 17 | 410 |
| 2,3,4,6-Tetrachlorophenol | | 410 | U | 39 | 410 |
| 2,4,5-Trichlorophenol | | 410 | U | 41 | 410 |
| 2,4,6-Trichlorophenol | | 170 | U | 12 | 170 |
| 2,4-Dichlorophenol | | 170 | U | 9.8 | 170 |
| 2,4-Dimethylphenol | | 410 | U | 91 | 410 |
| 2,4-Dinitrophenol | | 330 | U | 310 | 330 |
| 2,4-Dinitrotoluene | | 84 | U | 16 | 84 |
| 2,6-Dinitrotoluene | | 84 | U | 22 | 84 |
| 2-Chloronaphthalene | | 410 | U | 9.4 | 410 |
| 2-Chlorophenol | | 410 | U | 11 | 410 |
| 2-Methylnaphthalene | | 9.6 | J | 9.2 | 410 |
| 2-Methylphenol | | 410 | U | 18 | 410 |
| 2-Nitroaniline | | 410 | U | 14 | 410 |
| 2-Nitrophenol | | 410 | U | 14 | 410 |
| 3,3'-Dichlorobenzidine | | 170 | U | 46 | 170 |
| 3-Nitroaniline | | 410 | U | 12 | 410 |
| 4,6-Dinitro-2-methylphenol | | 330 | U | 110 | 330 |
| 4-Bromophenyl phenyl ether | | 410 | U | 13 | 410 |
| 4-Chloro-3-methylphenol | | 410 | U | 18 | 410 |
| 4-Chloroaniline | | 410 | U | 11 | 410 |
| 4-Chlorophenyl phenyl ether | | 410 | U | 12 | 410 |
| 4-Methylphenol | | 410 | U | 11 | 410 |
| 4-Nitroaniline | | 410 | U | 16 | 410 |
| 4-Nitrophenol | | 840 | U | 200 | 840 |
| Acenaphthene | | 41 | J | 10 | 410 |
| Acenaphthylene | | 410 | U | 11 | 410 |
| Acetophenone | | 410 | U | 9.0 | 410 |
| Anthracene | | 100 | J | 39 | 410 |
| Atrazine | | 170 | U | 18 | 170 |
| Benzaldehyde | | 410 | U | 32 | 410 |
| Benzo[a]anthracene | | 310 | | 35 | 41 |
| Benzo[a]pyrene | | 260 | | 13 | 41 |
| Benzo[b]fluoranthene | | 340 | | 16 | 41 |
| Benzo[g,h,i]perylene | | 210 | J | 24 | 410 |
| Benzo[k]fluoranthene | | 150 | | 18 | 41 |
| Bis(2-chloroethoxy)methane | | 410 | U | 13 | 410 |
| Bis(2-chloroethyl)ether | | 41 | U | 9.8 | 41 |
| Bis(2-ethylhexyl) phthalate | | 410 | U | 16 | 410 |
| Butyl benzyl phthalate | | 410 | U | 13 | 410 |
| Caprolactam | | 410 | U | 30 | 410 |
| Carbazole | | 57 | J | 10 | 410 |
| Chrysene | | 310 | J | 11 | 410 |
| Dibenz(a,h)anthracene | | 56 | | 22 | 41 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-4 (5-6)-170327

Lab Sample ID: 460-130404-4

Date Sampled: 03/27/2017 1215

Client Matrix: Solid

% Moisture: 20.4

Date Received: 03/27/2017 1820

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427031 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-426923 | Lab File ID: L138555.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0258 g |
| Analysis Date: 03/30/2017 0819 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1222 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 33 | J | 13 | 410 |
| Diethyl phthalate | | 410 | U | 12 | 410 |
| Dimethyl phthalate | | 410 | U | 12 | 410 |
| Di-n-butyl phthalate | | 410 | U | 12 | 410 |
| Di-n-octyl phthalate | | 410 | U | 21 | 410 |
| Fluoranthene | | 730 | | 12 | 410 |
| Fluorene | | 40 | J | 9.0 | 410 |
| Hexachlorobenzene | | 41 | U | 17 | 41 |
| Hexachlorobutadiene | | 84 | U | 12 | 84 |
| Hexachlorocyclopentadiene | | 410 | U | 26 | 410 |
| Hexachloroethane | | 41 | U | 15 | 41 |
| Indeno[1,2,3-cd]pyrene | | 220 | | 28 | 41 |
| Isophorone | | 84 | J | 8.9 | 170 |
| Naphthalene | | 22 | J | 11 | 410 |
| Nitrobenzene | | 41 | U | 13 | 41 |
| N-Nitrosodi-n-propylamine | | 41 | U | 14 | 41 |
| N-Nitrosodiphenylamine | | 410 | U | 38 | 410 |
| Pentachlorophenol | | 330 | U | 50 | 330 |
| Phenanthrene | | 550 | | 11 | 410 |
| Phenol | | 410 | U | 14 | 410 |
| Pyrene | | 600 | | 19 | 410 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 41 | | 10 - 103 |
| 2-Fluorobiphenyl | 76 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 61 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 69 | | 37 - 94 |
| Phenol-d5 (Surr) | 68 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 93 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-4 (6-7)-170327

Lab Sample ID: 460-130404-5

Date Sampled: 03/27/2017 1230

Client Matrix: Solid

% Moisture: 21.8

Date Received: 03/27/2017 1820

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427162 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-426923 | Lab File ID: L138594.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0259 g |
| Analysis Date: 03/31/2017 0259 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1222 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 420 | U | 36 | 420 |
| 1,2,4,5-Tetrachlorobenzene | | 420 | U | 31 | 420 |
| 2,2'-oxybis[1-chloropropane] | | 420 | U | 17 | 420 |
| 2,3,4,6-Tetrachlorophenol | | 420 | U | 40 | 420 |
| 2,4,5-Trichlorophenol | | 420 | U | 42 | 420 |
| 2,4,6-Trichlorophenol | | 170 | U | 12 | 170 |
| 2,4-Dichlorophenol | | 170 | U | 10 | 170 |
| 2,4-Dimethylphenol | | 420 | U | 93 | 420 |
| 2,4-Dinitrophenol | | 340 | U | 320 | 340 |
| 2,4-Dinitrotoluene | | 86 | U | 17 | 86 |
| 2,6-Dinitrotoluene | | 86 | U | 22 | 86 |
| 2-Chloronaphthalene | | 420 | U | 9.6 | 420 |
| 2-Chlorophenol | | 420 | U | 11 | 420 |
| 2-Methylnaphthalene | | 13 | J | 9.3 | 420 |
| 2-Methylphenol | | 420 | U | 18 | 420 |
| 2-Nitroaniline | | 420 | U | 14 | 420 |
| 2-Nitrophenol | | 420 | U | 14 | 420 |
| 3,3'-Dichlorobenzidine | | 170 | U | 47 | 170 |
| 3-Nitroaniline | | 420 | U | 13 | 420 |
| 4,6-Dinitro-2-methylphenol | | 340 | U | 110 | 340 |
| 4-Bromophenyl phenyl ether | | 420 | U | 13 | 420 |
| 4-Chloro-3-methylphenol | | 420 | U | 18 | 420 |
| 4-Chloroaniline | | 420 | U | 11 | 420 |
| 4-Chlorophenyl phenyl ether | | 420 | U | 13 | 420 |
| 4-Methylphenol | | 18 | J | 11 | 420 |
| 4-Nitroaniline | | 420 | U | 16 | 420 |
| 4-Nitrophenol | | 860 | U | 200 | 860 |
| Acenaphthene | | 24 | J | 10 | 420 |
| Acenaphthylene | | 13 | J | 11 | 420 |
| Acetophenone | | 420 | U | 9.2 | 420 |
| Anthracene | | 51 | J | 40 | 420 |
| Atrazine | | 170 | U | 19 | 170 |
| Benzaldehyde | | 420 | U | 32 | 420 |
| Benzo[a]anthracene | | 160 | | 35 | 42 |
| Benzo[a]pyrene | | 130 | | 13 | 42 |
| Benzo[b]fluoranthene | | 200 | | 16 | 42 |
| Benzo[g,h,i]perylene | | 55 | J | 24 | 420 |
| Benzo[k]fluoranthene | | 75 | | 18 | 42 |
| Bis(2-chloroethoxy)methane | | 420 | U | 13 | 420 |
| Bis(2-chloroethyl)ether | | 42 | U | 10 | 42 |
| Bis(2-ethylhexyl) phthalate | | 420 | U | 16 | 420 |
| Butyl benzyl phthalate | | 420 | U | 13 | 420 |
| Caprolactam | | 420 | U | 30 | 420 |
| Carbazole | | 34 | J | 10 | 420 |
| Chrysene | | 170 | J | 11 | 420 |
| Dibenz(a,h)anthracene | | 42 | U | 22 | 42 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-4 (6-7)-170327

Lab Sample ID: 460-130404-5

Date Sampled: 03/27/2017 1230

Client Matrix: Solid

% Moisture: 21.8

Date Received: 03/27/2017 1820

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427162 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-426923 | Lab File ID: L138594.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0259 g |
| Analysis Date: 03/31/2017 0259 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1222 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 22 | J | 13 | 420 |
| Diethyl phthalate | | 420 | U | 12 | 420 |
| Dimethyl phthalate | | 420 | U | 12 | 420 |
| Di-n-butyl phthalate | | 420 | U | 13 | 420 |
| Di-n-octyl phthalate | | 420 | U | 21 | 420 |
| Fluoranthene | | 390 | J | 13 | 420 |
| Fluorene | | 24 | J | 9.2 | 420 |
| Hexachlorobenzene | | 42 | U | 17 | 42 |
| Hexachlorobutadiene | | 86 | U | 12 | 86 |
| Hexachlorocyclopentadiene | | 420 | U | 26 | 420 |
| Hexachloroethane | | 42 | U | 15 | 42 |
| Indeno[1,2,3-cd]pyrene | | 65 | | 28 | 42 |
| Isophorone | | 170 | U | 9.1 | 170 |
| Naphthalene | | 31 | J | 11 | 420 |
| Nitrobenzene | | 42 | U | 13 | 42 |
| N-Nitrosodi-n-propylamine | | 42 | U | 14 | 42 |
| N-Nitrosodiphenylamine | | 420 | U | 38 | 420 |
| Pentachlorophenol | | 340 | U | 51 | 340 |
| Phenanthrene | | 220 | J | 11 | 420 |
| Phenol | | 420 | U | 14 | 420 |
| Pyrene | | 180 | J | 19 | 420 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 73 | | 10 - 103 |
| 2-Fluorobiphenyl | 84 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 66 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 73 | | 37 - 94 |
| Phenol-d5 (Surr) | 64 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 52 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-4-170327

Lab Sample ID: 460-130404-6

Date Sampled: 03/27/2017 1330

Client Matrix: Water

Date Received: 03/27/2017 1820

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Prep Method: 3510C | Prep Batch: 460-426877 | Lab File ID: U333935.D |
| Dilution: 1.0 | | Initial Weight/Volume: 245 mL |
| Analysis Date: 03/30/2017 1024 | | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|------------------------------|---------------|-----------|-------|-----|
| 1,1'-Biphenyl | 10 | U | 0.64 | 10 |
| 1,2,4,5-Tetrachlorobenzene | 10 | U | 0.44 | 10 |
| 2,2'-oxybis[1-chloropropane] | 10 | U | 0.95 | 10 |
| 2,3,4,6-Tetrachlorophenol | 10 | U | 0.70 | 10 |
| 2,4,5-Trichlorophenol | 10 | U | 0.50 | 10 |
| 2,4,6-Trichlorophenol | 10 | U | 0.54 | 10 |
| 2,4-Dichlorophenol | 10 | U | 0.64 | 10 |
| 2,4-Dimethylphenol | 10 | U | 0.93 | 10 |
| 2,4-Dinitrophenol | 20 | U | 2.4 | 20 |
| 2,4-Dinitrotoluene | 2.0 | U | 1.1 | 2.0 |
| 2,6-Dinitrotoluene | 2.0 | U | 0.90 | 2.0 |
| 2-Chloronaphthalene | 10 | U | 0.62 | 10 |
| 2-Chlorophenol | 10 | U | 0.76 | 10 |
| 2-Methylnaphthalene | 10 | U | 0.90 | 10 |
| 2-Methylphenol | 10 | U | 1.3 | 10 |
| 2-Nitroaniline | 10 | U | 0.66 | 10 |
| 2-Nitrophenol | 10 | U | 0.60 | 10 |
| 3,3'-Dichlorobenzidine | 10 | U | 1.1 | 10 |
| 3-Nitroaniline | 10 | U | 0.84 | 10 |
| 4,6-Dinitro-2-methylphenol | 20 | U | 2.1 | 20 |
| 4-Bromophenyl phenyl ether | 10 | U | 1.0 | 10 |
| 4-Chloro-3-methylphenol | 10 | U | 0.78 | 10 |
| 4-Chloroaniline | 10 | U | 0.74 | 10 |
| 4-Chlorophenyl phenyl ether | 10 | U | 0.98 | 10 |
| 4-Methylphenol | 10 | U | 0.89 | 10 |
| 4-Nitroaniline | 10 | U | 0.49 | 10 |
| 4-Nitrophenol | 20 | U | 4.7 | 20 |
| Acenaphthene | 10 | U | 0.90 | 10 |
| Acenaphthylene | 10 | U | 0.66 | 10 |
| Acetophenone | 10 | U | 1.1 | 10 |
| Anthracene | 10 | U | 0.58 | 10 |
| Atrazine | 2.0 | U | 0.79 | 2.0 |
| Benzaldehyde | 10 | U | 0.88 | 10 |
| Benzo[a]anthracene | 1.0 | U | 0.56 | 1.0 |
| Benzo[a]pyrene | 1.0 | U | 0.16 | 1.0 |
| Benzo[b]fluoranthene | 1.0 | U | 0.45 | 1.0 |
| Benzo[g,h,i]perylene | 10 | U | 0.77 | 10 |
| Benzo[k]fluoranthene | 1.0 | U | 0.18 | 1.0 |
| Bis(2-chloroethoxy)methane | 10 | U | 0.70 | 10 |
| Bis(2-chloroethyl)ether | 1.0 | U | 0.12 | 1.0 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 0.73 | 2.0 |
| Butyl benzyl phthalate | 10 | U | 0.61 | 10 |
| Caprolactam | 10 | U | 1.1 | 10 |
| Carbazole | 10 | U | 0.87 | 10 |
| Chrysene | 2.0 | U | 0.68 | 2.0 |
| Dibenz(a,h)anthracene | 1.0 | U | 0.092 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-4-170327

Lab Sample ID: 460-130404-6

Date Sampled: 03/27/2017 1330

Client Matrix: Water

Date Received: 03/27/2017 1820

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Prep Method: 3510C | Prep Batch: 460-426877 | Lab File ID: U333935.D |
| Dilution: 1.0 | | Initial Weight/Volume: 245 mL |
| Analysis Date: 03/30/2017 1024 | | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------------------------|---------------|-----------|-------------------|-----|
| Dibenzofuran | 10 | U | 0.87 | 10 |
| Diethyl phthalate | 10 | U | 1.0 | 10 |
| Dimethyl phthalate | 10 | U | 1.0 | 10 |
| Di-n-butyl phthalate | 10 | U | 0.84 | 10 |
| Di-n-octyl phthalate | 10 | U | 0.70 | 10 |
| Fluoranthene | 10 | U | 0.73 | 10 |
| Fluorene | 10 | U | 0.82 | 10 |
| Hexachlorobenzene | 1.0 | U | 0.48 | 1.0 |
| Hexachlorobutadiene | 1.0 | U | 0.78 | 1.0 |
| Hexachlorocyclopentadiene | 10 | U | 0.62 | 10 |
| Hexachloroethane | 1.0 | U | 0.092 | 1.0 |
| Indeno[1,2,3-cd]pyrene | 1.0 | U | 0.21 | 1.0 |
| Isophorone | 10 | U | 0.68 | 10 |
| Naphthalene | 1.9 | J | 0.82 | 10 |
| Nitrobenzene | 1.0 | U | 0.50 | 1.0 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 0.85 | 1.0 |
| N-Nitrosodiphenylamine | 10 | U | 0.76 | 10 |
| Pentachlorophenol | 20 | U | 2.2 | 20 |
| Phenanthrene | 1.5 | J | 0.66 | 10 |
| Phenol | 10 | U | 0.42 | 10 |
| Pyrene | 10 | U | 0.85 | 10 |
| | | | | |
| Surrogate | %Rec | Qualifier | Acceptance Limits | |
| 2,4,6-Tribromophenol (Surr) | 89 | | 26 - 139 | |
| 2-Fluorobiphenyl | 83 | | 45 - 107 | |
| 2-Fluorophenol (Surr) | 41 | | 25 - 58 | |
| Nitrobenzene-d5 (Surr) | 88 | | 51 - 108 | |
| Phenol-d5 (Surr) | 26 | | 14 - 39 | |
| Terphenyl-d14 (Surr) | 83 | | 40 - 148 | |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (1-2)-170327

Lab Sample ID: 460-130404-7

Date Sampled: 03/27/2017 1415

Client Matrix: Solid

% Moisture: 11.4

Date Received: 03/27/2017 1820

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427323 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-426926 | Lab File ID: L138620.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0236 g |
| Analysis Date: 03/31/2017 1409 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1229 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 370 | U | 32 | 370 |
| 1,2,4,5-Tetrachlorobenzene | | 370 | U | 28 | 370 |
| 2,2'-oxybis[1-chloropropane] | | 370 | U | 15 | 370 |
| 2,3,4,6-Tetrachlorophenol | | 370 | U | 35 | 370 |
| 2,4,5-Trichlorophenol | | 370 | U | 37 | 370 |
| 2,4,6-Trichlorophenol | | 150 | U | 11 | 150 |
| 2,4-Dichlorophenol | | 150 | U | 8.8 | 150 |
| 2,4-Dimethylphenol | | 370 | U | 82 | 370 |
| 2,4-Dinitrophenol | | 300 | U | 280 | 300 |
| 2,4-Dinitrotoluene | | 75 | U | 15 | 75 |
| 2,6-Dinitrotoluene | | 75 | U | 20 | 75 |
| 2-Chloronaphthalene | | 370 | U | 8.4 | 370 |
| 2-Chlorophenol | | 370 | U | 9.5 | 370 |
| 2-Methylnaphthalene | | 13 | J | 8.2 | 370 |
| 2-Methylphenol | | 370 | U | 16 | 370 |
| 2-Nitroaniline | | 370 | U | 12 | 370 |
| 2-Nitrophenol | | 370 | U | 13 | 370 |
| 3,3'-Dichlorobenzidine | | 150 | U | 42 | 150 |
| 3-Nitroaniline | | 370 | U | 11 | 370 |
| 4,6-Dinitro-2-methylphenol | | 300 | U | 99 | 300 |
| 4-Bromophenyl phenyl ether | | 370 | U | 12 | 370 |
| 4-Chloro-3-methylphenol | | 370 | U | 16 | 370 |
| 4-Chloroaniline | | 370 | U | 9.6 | 370 |
| 4-Chlorophenyl phenyl ether | | 370 | U | 11 | 370 |
| 4-Methylphenol | | 370 | U | 10 | 370 |
| 4-Nitroaniline | | 370 | U | 14 | 370 |
| 4-Nitrophenol | | 750 | U | 180 | 750 |
| Acenaphthene | | 70 | J | 9.0 | 370 |
| Acenaphthylene | | 24 | J | 9.6 | 370 |
| Acetophenone | | 370 | U | 8.1 | 370 |
| Anthracene | | 190 | J | 35 | 370 |
| Atrazine | | 150 | U | 17 | 150 |
| Benzaldehyde | | 370 | U | 28 | 370 |
| Benzo[a]anthracene | | 560 | | 31 | 37 |
| Benzo[a]pyrene | | 480 | | 11 | 37 |
| Benzo[b]fluoranthene | | 660 | | 15 | 37 |
| Benzo[g,h,i]perylene | | 240 | J | 21 | 370 |
| Benzo[k]fluoranthene | | 230 | | 16 | 37 |
| Bis(2-chloroethoxy)methane | | 370 | U | 12 | 370 |
| Bis(2-chloroethyl)ether | | 37 | U | 8.8 | 37 |
| Bis(2-ethylhexyl) phthalate | | 370 | U | 15 | 370 |
| Butyl benzyl phthalate | | 370 | U | 11 | 370 |
| Caprolactam | | 370 | U | 27 | 370 |
| Carbazole | | 55 | J | 9.2 | 370 |
| Chrysene | | 560 | | 10 | 370 |
| Dibenz(a,h)anthracene | | 59 | | 19 | 37 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (1-2)-170327

Lab Sample ID: 460-130404-7

Date Sampled: 03/27/2017 1415

Client Matrix: Solid

% Moisture: 11.4

Date Received: 03/27/2017 1820

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427323 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-426926 | Lab File ID: L138620.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0236 g |
| Analysis Date: 03/31/2017 1409 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1229 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 44 | J | 11 | 370 |
| Diethyl phthalate | | 370 | U | 11 | 370 |
| Dimethyl phthalate | | 370 | U | 11 | 370 |
| Di-n-butyl phthalate | | 37 | J | 11 | 370 |
| Di-n-octyl phthalate | | 370 | U | 19 | 370 |
| Fluoranthene | | 1200 | | 11 | 370 |
| Fluorene | | 62 | J | 8.1 | 370 |
| Hexachlorobenzene | | 37 | U | 15 | 37 |
| Hexachlorobutadiene | | 75 | U | 10 | 75 |
| Hexachlorocyclopentadiene | | 370 | U | 23 | 370 |
| Hexachloroethane | | 37 | U | 14 | 37 |
| Indeno[1,2,3-cd]pyrene | | 240 | | 25 | 37 |
| Isophorone | | 150 | U | 8.0 | 150 |
| Naphthalene | | 31 | J | 9.5 | 370 |
| Nitrobenzene | | 37 | U * | 12 | 37 |
| N-Nitrosodi-n-propylamine | | 37 | U | 13 | 37 |
| N-Nitrosodiphenylamine | | 370 | U | 34 | 370 |
| Pentachlorophenol | | 300 | U | 45 | 300 |
| Phenanthrene | | 810 | | 9.9 | 370 |
| Phenol | | 370 | U | 12 | 370 |
| Pyrene | | 850 | | 17 | 370 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 41 | | 10 - 103 |
| 2-Fluorobiphenyl | 79 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 59 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 80 | | 37 - 94 |
| Phenol-d5 (Surr) | 65 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 57 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (5-6)-170327

Lab Sample ID: 460-130404-8

Date Sampled: 03/27/2017 1445

Client Matrix: Solid

% Moisture: 17.3

Date Received: 03/27/2017 1820

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427031 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-426923 | Lab File ID: L138547.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0255 g |
| Analysis Date: 03/30/2017 0516 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1222 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 400 | U | 34 | 400 |
| 1,2,4,5-Tetrachlorobenzene | | 400 | U | 30 | 400 |
| 2,2'-oxybis[1-chloropropane] | | 400 | U | 16 | 400 |
| 2,3,4,6-Tetrachlorophenol | | 400 | U | 38 | 400 |
| 2,4,5-Trichlorophenol | | 400 | U | 40 | 400 |
| 2,4,6-Trichlorophenol | | 160 | U | 11 | 160 |
| 2,4-Dichlorophenol | | 160 | U | 9.4 | 160 |
| 2,4-Dimethylphenol | | 400 | U | 88 | 400 |
| 2,4-Dinitrophenol | | 320 | U | 300 | 320 |
| 2,4-Dinitrotoluene | | 81 | U | 16 | 81 |
| 2,6-Dinitrotoluene | | 81 | U | 21 | 81 |
| 2-Chloronaphthalene | | 400 | U | 9.1 | 400 |
| 2-Chlorophenol | | 400 | U | 10 | 400 |
| 2-Methylnaphthalene | | 400 | U | 8.8 | 400 |
| 2-Methylphenol | | 400 | U | 17 | 400 |
| 2-Nitroaniline | | 400 | U | 13 | 400 |
| 2-Nitrophenol | | 400 | U | 13 | 400 |
| 3,3'-Dichlorobenzidine | | 160 | U | 45 | 160 |
| 3-Nitroaniline | | 400 | U | 12 | 400 |
| 4,6-Dinitro-2-methylphenol | | 320 | U | 110 | 320 |
| 4-Bromophenyl phenyl ether | | 400 | U | 13 | 400 |
| 4-Chloro-3-methylphenol | | 400 | U | 17 | 400 |
| 4-Chloroaniline | | 400 | U | 10 | 400 |
| 4-Chlorophenyl phenyl ether | | 400 | U | 12 | 400 |
| 4-Methylphenol | | 400 | U | 11 | 400 |
| 4-Nitroaniline | | 400 | U | 15 | 400 |
| 4-Nitrophenol | | 810 | U | 190 | 810 |
| Acenaphthene | | 400 | U | 9.7 | 400 |
| Acenaphthylene | | 400 | U | 10 | 400 |
| Acetophenone | | 400 | U | 8.7 | 400 |
| Anthracene | | 400 | U | 38 | 400 |
| Atrazine | | 160 | U | 18 | 160 |
| Benzaldehyde | | 400 | U | 30 | 400 |
| Benzo[a]anthracene | | 73 | | 33 | 40 |
| Benzo[a]pyrene | | 64 | | 12 | 40 |
| Benzo[b]fluoranthene | | 79 | | 16 | 40 |
| Benzo[g,h,i]perylene | | 40 | J | 23 | 400 |
| Benzo[k]fluoranthene | | 38 | J | 17 | 40 |
| Bis(2-chloroethoxy)methane | | 400 | U | 12 | 400 |
| Bis(2-chloroethyl)ether | | 40 | U | 9.4 | 40 |
| Bis(2-ethylhexyl) phthalate | | 400 | U | 16 | 400 |
| Butyl benzyl phthalate | | 400 | U | 12 | 400 |
| Caprolactam | | 400 | U | 29 | 400 |
| Carbazole | | 11 | J | 9.9 | 400 |
| Chrysene | | 76 | J | 11 | 400 |
| Dibenz(a,h)anthracene | | 40 | U | 21 | 40 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (5-6)-170327

Lab Sample ID: 460-130404-8

Date Sampled: 03/27/2017 1445

Client Matrix: Solid

% Moisture: 17.3

Date Received: 03/27/2017 1820

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427031 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-426923 | Lab File ID: L138547.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0255 g |
| Analysis Date: 03/30/2017 0516 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1222 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 400 | U | 12 | 400 |
| Diethyl phthalate | | 400 | U | 11 | 400 |
| Dimethyl phthalate | | 400 | U | 12 | 400 |
| Di-n-butyl phthalate | | 400 | U | 12 | 400 |
| Di-n-octyl phthalate | | 400 | U | 20 | 400 |
| Fluoranthene | | 130 | J | 12 | 400 |
| Fluorene | | 9.1 | J | 8.7 | 400 |
| Hexachlorobenzene | | 40 | U | 16 | 40 |
| Hexachlorobutadiene | | 81 | U | 11 | 81 |
| Hexachlorocyclopentadiene | | 400 | U | 25 | 400 |
| Hexachloroethane | | 40 | U | 15 | 40 |
| Indeno[1,2,3-cd]pyrene | | 42 | | 27 | 40 |
| Isophorone | | 160 | U | 8.6 | 160 |
| Naphthalene | | 13 | J | 10 | 400 |
| Nitrobenzene | | 40 | U | 13 | 40 |
| N-Nitrosodi-n-propylamine | | 40 | U | 13 | 40 |
| N-Nitrosodiphenylamine | | 400 | U | 36 | 400 |
| Pentachlorophenol | | 320 | U | 48 | 320 |
| Phenanthrene | | 95 | J | 11 | 400 |
| Phenol | | 400 | U | 13 | 400 |
| Pyrene | | 120 | J | 18 | 400 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 82 | | 10 - 103 |
| 2-Fluorobiphenyl | 66 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 62 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 63 | | 37 - 94 |
| Phenol-d5 (Surr) | 63 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 81 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (1-2)-170327

Lab Sample ID: 460-130404-1

Date Sampled: 03/27/2017 1010

Client Matrix: Solid

% Moisture: 16.0

Date Received: 03/27/2017 1820

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-426902 | Instrument ID: CPESTGC4 |
| Prep Method: 3546 | Prep Batch: 460-426820 | Initial Weight/Volume: +15.0116 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/29/2017 1336 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 0210 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 8.0 | U | 1.0 | 8.0 |
| 4,4'-DDE | | 8.0 | U | 1.2 | 8.0 |
| 4,4'-DDT | | 8.0 | U | 0.82 | 8.0 |
| Aldrin | | 8.0 | U | 0.96 | 8.0 |
| alpha-BHC | | 2.4 | U | 0.73 | 2.4 |
| beta-BHC | | 2.4 | U | 0.77 | 2.4 |
| Chlordane (technical) | | 80 | U | 35 | 80 |
| delta-BHC | | 2.4 | U | 0.87 | 2.4 |
| Dieldrin | | 2.4 | U | 1.0 | 2.4 |
| Endosulfan I | | 8.0 | U | 1.1 | 8.0 |
| Endosulfan II | | 8.0 | U | 1.2 | 8.0 |
| Endosulfan sulfate | | 8.0 | U | 0.93 | 8.0 |
| Endrin | | 8.0 | U | 1.0 | 8.0 |
| Endrin aldehyde | | 8.0 | U | 0.99 | 8.0 |
| Endrin ketone | | 8.0 | U | 1.1 | 8.0 |
| gamma-BHC (Lindane) | | 2.4 | U | 0.71 | 2.4 |
| Heptachlor | | 8.0 | U | 1.0 | 8.0 |
| Heptachlor epoxide | | 8.0 | U | 1.6 | 8.0 |
| Methoxychlor | | 8.0 | U | 1.7 | 8.0 |
| Toxaphene | | 80 | U | 23 | 80 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 96 | | 50 - 150 |
| Tetrachloro-m-xylene | 95 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (1-2)-170327

Lab Sample ID: 460-130404-1

Date Sampled: 03/27/2017 1010

Client Matrix: Solid

% Moisture: 16.0

Date Received: 03/27/2017 1820

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-426902

Instrument ID: CPESTGC4

Prep Method: 3546

Prep Batch: 460-426820

Initial Weight/Volume: +15.0116 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/29/2017 1336

Injection Volume: 1 uL

Prep Date: 03/29/2017 0210

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 91 | | 50 - 150 |
| Tetrachloro-m-xylene | 90 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (8-9)-170327

Lab Sample ID: 460-130404-2

Date Sampled: 03/27/2017 1030

Client Matrix: Solid

% Moisture: 15.0

Date Received: 03/27/2017 1820

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-426902 | Instrument ID: CPESTGC4 |
| Prep Method: 3546 | Prep Batch: 460-426820 | Initial Weight/Volume: +15.0088 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/29/2017 1349 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 0210 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 7.9 | U | 1.0 | 7.9 |
| 4,4'-DDE | | 7.9 | U | 1.1 | 7.9 |
| 4,4'-DDT | | 7.9 | U | 0.81 | 7.9 |
| Aldrin | | 7.9 | U | 0.95 | 7.9 |
| alpha-BHC | | 2.4 | U | 0.72 | 2.4 |
| beta-BHC | | 2.4 | U | 0.76 | 2.4 |
| Chlordane (technical) | | 79 | U | 35 | 79 |
| delta-BHC | | 2.4 | U | 0.86 | 2.4 |
| Dieldrin | | 2.4 | U | 1.0 | 2.4 |
| Endosulfan I | | 7.9 | U | 1.1 | 7.9 |
| Endosulfan II | | 7.9 | U | 1.2 | 7.9 |
| Endosulfan sulfate | | 7.9 | U | 0.92 | 7.9 |
| Endrin | | 7.9 | U | 1.0 | 7.9 |
| Endrin aldehyde | | 7.9 | U | 0.98 | 7.9 |
| Endrin ketone | | 7.9 | U | 1.1 | 7.9 |
| gamma-BHC (Lindane) | | 2.4 | U | 0.71 | 2.4 |
| Heptachlor | | 7.9 | U | 1.0 | 7.9 |
| Heptachlor epoxide | | 7.9 | U | 1.5 | 7.9 |
| Methoxychlor | | 7.9 | U | 1.7 | 7.9 |
| Toxaphene | | 79 | U | 23 | 79 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 93 | | 50 - 150 |
| Tetrachloro-m-xylene | 96 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (8-9)-170327

Lab Sample ID: 460-130404-2

Date Sampled: 03/27/2017 1030

Client Matrix: Solid

% Moisture: 15.0

Date Received: 03/27/2017 1820

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-426902

Instrument ID: CPESTGC4

Prep Method: 3546

Prep Batch: 460-426820

Initial Weight/Volume: +15.0088 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/29/2017 1349

Injection Volume: 1 uL

Prep Date: 03/29/2017 0210

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 90 | | 50 - 150 |
| Tetrachloro-m-xylene | 90 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-2-170327

Lab Sample ID: 460-130404-3

Date Sampled: 03/27/2017 1115

Client Matrix: Water

Date Received: 03/27/2017 1820

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427093 | Instrument ID: CPESTGC5 |
| Prep Method: 3510C | Prep Batch: 460-426997 | Initial Weight/Volume: 250 mL |
| Dilution: 1.0 | | Final Weight/Volume: 1 mL |
| Analysis Date: 03/30/2017 0933 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 1947 | | Result Type: PRIMARY |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------------------|---------------|-----------|--------|-------|
| 4,4'-DDD | 0.020 | U | 0.0050 | 0.020 |
| 4,4'-DDE | 0.020 | U | 0.0040 | 0.020 |
| 4,4'-DDT | 0.020 | U | 0.0040 | 0.020 |
| Aldrin | 0.020 | U | 0.0040 | 0.020 |
| alpha-BHC | 0.020 | U | 0.0060 | 0.020 |
| beta-BHC | 0.020 | U | 0.0050 | 0.020 |
| Chlordane (technical) | 0.50 | U | 0.13 | 0.50 |
| delta-BHC | 0.020 | U | 0.0060 | 0.020 |
| Dieldrin | 0.020 | U | 0.0040 | 0.020 |
| Endosulfan I | 0.020 | U | 0.0050 | 0.020 |
| Endosulfan II | 0.020 | U | 0.0040 | 0.020 |
| Endosulfan sulfate | 0.020 | U | 0.0050 | 0.020 |
| Endrin | 0.020 | U | 0.0040 | 0.020 |
| Endrin aldehyde | 0.020 | U | 0.0040 | 0.020 |
| Endrin ketone | 0.020 | U | 0.0040 | 0.020 |
| gamma-BHC (Lindane) | 0.020 | U | 0.0040 | 0.020 |
| Heptachlor | 0.020 | U | 0.0040 | 0.020 |
| Heptachlor epoxide | 0.020 | U | 0.0040 | 0.020 |
| Methoxychlor | 0.020 | U | 0.0040 | 0.020 |
| Toxaphene | 0.50 | U | 0.060 | 0.50 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 39 | | 10 - 150 |
| Tetrachloro-m-xylene | 35 | | 16 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-2-170327

Lab Sample ID: 460-130404-3

Date Sampled: 03/27/2017 1115

Client Matrix: Water

Date Received: 03/27/2017 1820

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427093 | Instrument ID: CPESTGC5 |
| Prep Method: 3510C | Prep Batch: 460-426997 | Initial Weight/Volume: 250 mL |
| Dilution: 1.0 | | Final Weight/Volume: 1 mL |
| Analysis Date: 03/30/2017 0933 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 1947 | | Result Type: SECONDARY |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 38 | | 10 - 150 |
| Tetrachloro-m-xylene | 32 | | 16 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-4 (5-6)-170327

Lab Sample ID: 460-130404-4

Date Sampled: 03/27/2017 1215

Client Matrix: Solid

% Moisture: 20.4

Date Received: 03/27/2017 1820

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-426902 | Instrument ID: CPESTGC4 |
| Prep Method: 3546 | Prep Batch: 460-426820 | Initial Weight/Volume: +15.0051 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/29/2017 1401 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 0210 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 8.4 | U | 1.1 | 8.4 |
| 4,4'-DDE | | 8.4 | U | 1.2 | 8.4 |
| 4,4'-DDT | | 8.4 | U | 0.87 | 8.4 |
| Aldrin | | 8.4 | U | 1.0 | 8.4 |
| alpha-BHC | | 2.5 | U | 0.77 | 2.5 |
| beta-BHC | | 2.5 | U | 0.82 | 2.5 |
| Chlordane (technical) | | 84 | U | 37 | 84 |
| delta-BHC | | 2.5 | U | 0.92 | 2.5 |
| Dieldrin | | 2.5 | U | 1.1 | 2.5 |
| Endosulfan I | | 8.4 | U | 1.2 | 8.4 |
| Endosulfan II | | 8.4 | U | 1.3 | 8.4 |
| Endosulfan sulfate | | 8.4 | U | 0.98 | 8.4 |
| Endrin | | 8.4 | U | 1.1 | 8.4 |
| Endrin aldehyde | | 8.4 | U | 1.0 | 8.4 |
| Endrin ketone | | 8.4 | U | 1.2 | 8.4 |
| gamma-BHC (Lindane) | | 2.5 | U | 0.75 | 2.5 |
| Heptachlor | | 8.4 | U | 1.1 | 8.4 |
| Heptachlor epoxide | | 8.4 | U | 1.6 | 8.4 |
| Methoxychlor | | 8.4 | U | 1.8 | 8.4 |
| Toxaphene | | 84 | U | 24 | 84 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 90 | | 50 - 150 |
| Tetrachloro-m-xylene | 92 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-4 (5-6)-170327

Lab Sample ID: 460-130404-4

Date Sampled: 03/27/2017 1215

Client Matrix: Solid

% Moisture: 20.4

Date Received: 03/27/2017 1820

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-426902

Instrument ID: CPESTGC4

Prep Method: 3546

Prep Batch: 460-426820

Initial Weight/Volume: +15.0051 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/29/2017 1401

Injection Volume: 1 uL

Prep Date: 03/29/2017 0210

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 89 | | 50 - 150 |
| Tetrachloro-m-xylene | 89 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-4 (6-7)-170327

Lab Sample ID: 460-130404-5

Date Sampled: 03/27/2017 1230

Client Matrix: Solid

% Moisture: 21.8

Date Received: 03/27/2017 1820

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-426902 | Instrument ID: CPESTGC4 |
| Prep Method: 3546 | Prep Batch: 460-426820 | Initial Weight/Volume: +15.0060 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/29/2017 1413 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 0210 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 8.6 | U | 1.1 | 8.6 |
| 4,4'-DDE | | 8.6 | U | 1.2 | 8.6 |
| 4,4'-DDT | | 8.6 | U | 0.88 | 8.6 |
| Aldrin | | 8.6 | U | 1.0 | 8.6 |
| alpha-BHC | | 2.6 | U | 0.78 | 2.6 |
| beta-BHC | | 2.6 | U | 0.83 | 2.6 |
| Chlordane (technical) | | 86 | U | 38 | 86 |
| delta-BHC | | 2.6 | U | 0.93 | 2.6 |
| Dieldrin | | 2.6 | U | 1.1 | 2.6 |
| Endosulfan I | | 8.6 | U | 1.2 | 8.6 |
| Endosulfan II | | 8.6 | U | 1.3 | 8.6 |
| Endosulfan sulfate | | 8.6 | U | 1.0 | 8.6 |
| Endrin | | 8.6 | U | 1.1 | 8.6 |
| Endrin aldehyde | | 8.6 | U | 1.1 | 8.6 |
| Endrin ketone | | 8.6 | U | 1.2 | 8.6 |
| gamma-BHC (Lindane) | | 2.6 | U | 0.77 | 2.6 |
| Heptachlor | | 8.6 | U | 1.1 | 8.6 |
| Heptachlor epoxide | | 8.6 | U | 1.7 | 8.6 |
| Methoxychlor | | 8.6 | U | 1.8 | 8.6 |
| Toxaphene | | 86 | U | 25 | 86 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 97 | | 50 - 150 |
| Tetrachloro-m-xylene | 103 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-4 (6-7)-170327

Lab Sample ID: 460-130404-5

Date Sampled: 03/27/2017 1230

Client Matrix: Solid

% Moisture: 21.8

Date Received: 03/27/2017 1820

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-426902

Instrument ID: CPESTGC4

Prep Method: 3546

Prep Batch: 460-426820

Initial Weight/Volume: +15.0060 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/29/2017 1413

Injection Volume: 1 uL

Prep Date: 03/29/2017 0210

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 96 | | 50 - 150 |
| Tetrachloro-m-xylene | 94 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-4-170327

Lab Sample ID: 460-130404-6

Date Sampled: 03/27/2017 1330

Client Matrix: Water

Date Received: 03/27/2017 1820

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427093 | Instrument ID: CPESTGC5 |
| Prep Method: 3510C | Prep Batch: 460-426997 | Initial Weight/Volume: 250 mL |
| Dilution: 1.0 | | Final Weight/Volume: 1 mL |
| Analysis Date: 03/30/2017 0956 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 1947 | | Result Type: PRIMARY |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------------------|---------------|-----------|--------|-------|
| 4,4'-DDD | 0.020 | U | 0.0050 | 0.020 |
| 4,4'-DDE | 0.020 | U | 0.0040 | 0.020 |
| 4,4'-DDT | 0.020 | U | 0.0040 | 0.020 |
| Aldrin | 0.020 | U | 0.0040 | 0.020 |
| alpha-BHC | 0.020 | U | 0.0060 | 0.020 |
| beta-BHC | 0.020 | U | 0.0050 | 0.020 |
| Chlordane (technical) | 0.50 | U | 0.13 | 0.50 |
| delta-BHC | 0.020 | U | 0.0060 | 0.020 |
| Dieldrin | 0.020 | U | 0.0040 | 0.020 |
| Endosulfan I | 0.020 | U | 0.0050 | 0.020 |
| Endosulfan II | 0.020 | U | 0.0040 | 0.020 |
| Endosulfan sulfate | 0.020 | U | 0.0050 | 0.020 |
| Endrin | 0.020 | U | 0.0040 | 0.020 |
| Endrin aldehyde | 0.020 | U | 0.0040 | 0.020 |
| Endrin ketone | 0.020 | U | 0.0040 | 0.020 |
| gamma-BHC (Lindane) | 0.020 | U | 0.0040 | 0.020 |
| Heptachlor | 0.020 | U | 0.0040 | 0.020 |
| Heptachlor epoxide | 0.020 | U | 0.0040 | 0.020 |
| Methoxychlor | 0.020 | U | 0.0040 | 0.020 |
| Toxaphene | 0.50 | U | 0.060 | 0.50 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 44 | | 10 - 150 |
| Tetrachloro-m-xylene | 39 | | 16 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-4-170327

Lab Sample ID: 460-130404-6

Date Sampled: 03/27/2017 1330

Client Matrix: Water

Date Received: 03/27/2017 1820

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427093 | Instrument ID: CPESTGC5 |
| Prep Method: 3510C | Prep Batch: 460-426997 | Initial Weight/Volume: 250 mL |
| Dilution: 1.0 | | Final Weight/Volume: 1 mL |
| Analysis Date: 03/30/2017 0956 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 1947 | | Result Type: SECONDARY |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 41 | | 10 - 150 |
| Tetrachloro-m-xylene | 37 | | 16 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (1-2)-170327

Lab Sample ID: 460-130404-7

Date Sampled: 03/27/2017 1415

Client Matrix: Solid

% Moisture: 11.4

Date Received: 03/27/2017 1820

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-426902 | Instrument ID: CPESTGC4 |
| Prep Method: 3546 | Prep Batch: 460-426820 | Initial Weight/Volume: +15.0414 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/29/2017 1425 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 0210 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 7.5 | U | 0.99 | 7.5 |
| 4,4'-DDE | | 7.5 | U | 1.1 | 7.5 |
| 4,4'-DDT | | 7.5 | U | 0.78 | 7.5 |
| Aldrin | | 7.5 | U | 0.91 | 7.5 |
| alpha-BHC | | 2.3 | U | 0.69 | 2.3 |
| beta-BHC | | 2.3 | U | 0.73 | 2.3 |
| Chlordane (technical) | | 75 | U | 33 | 75 |
| delta-BHC | | 2.3 | U | 0.82 | 2.3 |
| Dieldrin | | 2.3 | U | 0.98 | 2.3 |
| Endosulfan I | | 7.5 | U | 1.0 | 7.5 |
| Endosulfan II | | 7.5 | U | 1.2 | 7.5 |
| Endosulfan sulfate | | 7.5 | U | 0.88 | 7.5 |
| Endrin | | 7.5 | U | 0.96 | 7.5 |
| Endrin aldehyde | | 7.5 | U | 0.93 | 7.5 |
| Endrin ketone | | 7.5 | U | 1.0 | 7.5 |
| gamma-BHC (Lindane) | | 2.3 | U | 0.68 | 2.3 |
| Heptachlor | | 7.5 | U | 0.97 | 7.5 |
| Heptachlor epoxide | | 7.5 | U | 1.5 | 7.5 |
| Methoxychlor | | 7.5 | U | 1.6 | 7.5 |
| Toxaphene | | 75 | U | 22 | 75 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 95 | | 50 - 150 |
| Tetrachloro-m-xylene | 107 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (1-2)-170327

Lab Sample ID: 460-130404-7

Date Sampled: 03/27/2017 1415

Client Matrix: Solid

% Moisture: 11.4

Date Received: 03/27/2017 1820

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-426902

Instrument ID: CPESTGC4

Prep Method: 3546

Prep Batch: 460-426820

Initial Weight/Volume: +15.0414 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/29/2017 1425

Injection Volume: 1 uL

Prep Date: 03/29/2017 0210

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 94 | | 50 - 150 |
| Tetrachloro-m-xylene | 94 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (5-6)-170327

Lab Sample ID: 460-130404-8

Date Sampled: 03/27/2017 1445

Client Matrix: Solid

% Moisture: 17.3

Date Received: 03/27/2017 1820

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-426902 | Instrument ID: CPESTGC4 |
| Prep Method: 3546 | Prep Batch: 460-426820 | Initial Weight/Volume: +15.0073 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/29/2017 1437 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 0210 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 8.1 | U | 1.1 | 8.1 |
| 4,4'-DDE | | 8.1 | U | 1.2 | 8.1 |
| 4,4'-DDT | | 8.1 | U | 0.83 | 8.1 |
| Aldrin | | 8.1 | U | 0.98 | 8.1 |
| alpha-BHC | | 2.4 | U | 0.74 | 2.4 |
| beta-BHC | | 2.4 | U | 0.79 | 2.4 |
| Chlordane (technical) | | 81 | U | 36 | 81 |
| delta-BHC | | 2.4 | U | 0.88 | 2.4 |
| Dieldrin | | 2.4 | U | 1.1 | 2.4 |
| Endosulfan I | | 8.1 | U | 1.1 | 8.1 |
| Endosulfan II | | 8.1 | U | 1.3 | 8.1 |
| Endosulfan sulfate | | 8.1 | U | 0.94 | 8.1 |
| Endrin | | 8.1 | U | 1.0 | 8.1 |
| Endrin aldehyde | | 8.1 | U | 1.0 | 8.1 |
| Endrin ketone | | 8.1 | U | 1.1 | 8.1 |
| gamma-BHC (Lindane) | | 2.4 | U | 0.73 | 2.4 |
| Heptachlor | | 8.1 | U | 1.0 | 8.1 |
| Heptachlor epoxide | | 8.1 | U | 1.6 | 8.1 |
| Methoxychlor | | 8.1 | U | 1.7 | 8.1 |
| Toxaphene | | 81 | U | 24 | 81 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 93 | | 50 - 150 |
| Tetrachloro-m-xylene | 101 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (5-6)-170327

Lab Sample ID: 460-130404-8

Date Sampled: 03/27/2017 1445

Client Matrix: Solid

% Moisture: 17.3

Date Received: 03/27/2017 1820

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-426902

Instrument ID: CPESTGC4

Prep Method: 3546

Prep Batch: 460-426820

Initial Weight/Volume: +15.0073 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/29/2017 1437

Injection Volume: 1 uL

Prep Date: 03/29/2017 0210

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 92 | | 50 - 150 |
| Tetrachloro-m-xylene | 91 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (1-2)-170327

Lab Sample ID: 460-130404-1

Date Sampled: 03/27/2017 1010

Client Matrix: Solid

% Moisture: 16.0

Date Received: 03/27/2017 1820

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-426943 | Instrument ID: CPESTGC7 |
| Prep Method: 3546 | Prep Batch: 460-426822 | Initial Weight/Volume: +15.0116 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/29/2017 1521 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 0221 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 80 | U | 11 | 80 |
| Aroclor 1221 | | 80 | U | 11 | 80 |
| Aroclor 1232 | | 80 | U | 11 | 80 |
| Aroclor 1242 | | 80 | U | 11 | 80 |
| Aroclor 1248 | | 80 | U | 11 | 80 |
| Aroclor 1254 | | 80 | U | 11 | 80 |
| Aroclor 1260 | | 80 | U | 11 | 80 |
| Aroclor 1268 | | 80 | U | 11 | 80 |
| Aroclor-1262 | | 80 | U | 11 | 80 |
| Polychlorinated biphenyls, Total | | 80 | U | 11 | 80 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 147 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (1-2)-170327

Lab Sample ID: 460-130404-1

Date Sampled: 03/27/2017 1010

Client Matrix: Solid

% Moisture: 16.0

Date Received: 03/27/2017 1820

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-426943

Instrument ID: CPESTGC7

Prep Method: 3546

Prep Batch: 460-426822

Initial Weight/Volume: +15.0116 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/29/2017 1521

Injection Volume: 1 uL

Prep Date: 03/29/2017 0221

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 138 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (8-9)-170327

Lab Sample ID: 460-130404-2

Date Sampled: 03/27/2017 1030

Client Matrix: Solid

% Moisture: 15.0

Date Received: 03/27/2017 1820

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-426943 | Instrument ID: CPESTGC7 |
| Prep Method: 3546 | Prep Batch: 460-426822 | Initial Weight/Volume: +15.0088 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/29/2017 1719 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 0221 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 79 | U | 10 | 79 |
| Aroclor 1221 | | 79 | U | 10 | 79 |
| Aroclor 1232 | | 79 | U | 10 | 79 |
| Aroclor 1242 | | 79 | U | 10 | 79 |
| Aroclor 1248 | | 79 | U | 10 | 79 |
| Aroclor 1254 | | 79 | U | 11 | 79 |
| Aroclor 1260 | | 79 | U | 11 | 79 |
| Aroclor 1268 | | 79 | U | 11 | 79 |
| Aroclor-1262 | | 79 | U | 11 | 79 |
| Polychlorinated biphenyls, Total | | 79 | U | 11 | 79 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 117 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (8-9)-170327

Lab Sample ID: 460-130404-2

Date Sampled: 03/27/2017 1030

Client Matrix: Solid

% Moisture: 15.0

Date Received: 03/27/2017 1820

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-426943

Instrument ID: CPESTGC7

Prep Method: 3546

Prep Batch: 460-426822

Initial Weight/Volume: +15.0088 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/29/2017 1719

Injection Volume: 1 uL

Prep Date: 03/29/2017 0221

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 115 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-2-170327

Lab Sample ID: 460-130404-3

Date Sampled: 03/27/2017 1115

Client Matrix: Water

Date Received: 03/27/2017 1820

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-427078 | Instrument ID: CPESTGC7 |
| Prep Method: 3510C | Prep Batch: 460-426998 | Initial Weight/Volume: 250 mL |
| Dilution: 1.0 | | Final Weight/Volume: 1 mL |
| Analysis Date: 03/30/2017 1924 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 1950 | | Result Type: PRIMARY |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|----------------------------------|---------------|-----------|-------|------|
| Aroclor 1016 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1221 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1232 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1242 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1248 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1254 | 0.40 | U | 0.084 | 0.40 |
| Aroclor 1260 | 0.40 | U | 0.084 | 0.40 |
| Aroclor 1268 | 0.40 | U | 0.084 | 0.40 |
| Aroclor-1262 | 0.40 | U | 0.084 | 0.40 |
| Polychlorinated biphenyls, Total | 0.40 | U | 0.098 | 0.40 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 78 | | 10 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-2-170327

Lab Sample ID: 460-130404-3

Date Sampled: 03/27/2017 1115

Client Matrix: Water

Date Received: 03/27/2017 1820

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-427078 | Instrument ID: CPESTGC7 |
| Prep Method: 3510C | Prep Batch: 460-426998 | Initial Weight/Volume: 250 mL |
| Dilution: 1.0 | | Final Weight/Volume: 1 mL |
| Analysis Date: 03/30/2017 1924 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 1950 | | Result Type: SECONDARY |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 74 | | 10 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-4 (5-6)-170327

Lab Sample ID: 460-130404-4

Date Sampled: 03/27/2017 1215

Client Matrix: Solid

% Moisture: 20.4

Date Received: 03/27/2017 1820

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-426943 | Instrument ID: CPESTGC7 |
| Prep Method: 3546 | Prep Batch: 460-426822 | Initial Weight/Volume: +15.0051 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/29/2017 1743 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 0221 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 84 | U | 11 | 84 |
| Aroclor 1221 | | 84 | U | 11 | 84 |
| Aroclor 1232 | | 84 | U | 11 | 84 |
| Aroclor 1242 | | 84 | U | 11 | 84 |
| Aroclor 1248 | | 84 | U | 11 | 84 |
| Aroclor 1254 | | 84 | U | 12 | 84 |
| Aroclor 1260 | | 84 | U | 12 | 84 |
| Aroclor 1268 | | 84 | U | 12 | 84 |
| Aroclor-1262 | | 84 | U | 12 | 84 |
| Polychlorinated biphenyls, Total | | 84 | U | 12 | 84 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 111 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-4 (5-6)-170327

Lab Sample ID: 460-130404-4

Date Sampled: 03/27/2017 1215

Client Matrix: Solid

% Moisture: 20.4

Date Received: 03/27/2017 1820

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-426943

Instrument ID: CPESTGC7

Prep Method: 3546

Prep Batch: 460-426822

Initial Weight/Volume: +15.0051 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/29/2017 1743

Injection Volume: 1 uL

Prep Date: 03/29/2017 0221

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 104 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-4 (6-7)-170327

Lab Sample ID: 460-130404-5

Date Sampled: 03/27/2017 1230

Client Matrix: Solid

% Moisture: 21.8

Date Received: 03/27/2017 1820

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-426943 | Instrument ID: CPESTGC7 |
| Prep Method: 3546 | Prep Batch: 460-426822 | Initial Weight/Volume: +15.0060 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/29/2017 1806 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 0221 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 86 | U | 11 | 86 |
| Aroclor 1221 | | 86 | U | 11 | 86 |
| Aroclor 1232 | | 86 | U | 11 | 86 |
| Aroclor 1242 | | 86 | U | 11 | 86 |
| Aroclor 1248 | | 86 | U | 11 | 86 |
| Aroclor 1254 | | 86 | U | 12 | 86 |
| Aroclor 1260 | | 86 | U | 12 | 86 |
| Aroclor 1268 | | 86 | U | 12 | 86 |
| Aroclor-1262 | | 86 | U | 12 | 86 |
| Polychlorinated biphenyls, Total | | 86 | U | 12 | 86 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 110 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-4 (6-7)-170327

Lab Sample ID: 460-130404-5

Date Sampled: 03/27/2017 1230

Client Matrix: Solid

% Moisture: 21.8

Date Received: 03/27/2017 1820

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-426943

Instrument ID: CPESTGC7

Prep Method: 3546

Prep Batch: 460-426822

Initial Weight/Volume: +15.0060 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/29/2017 1806

Injection Volume: 1 uL

Prep Date: 03/29/2017 0221

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 109 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: **GW-4-170327**

Lab Sample ID: 460-130404-6

Date Sampled: 03/27/2017 1330

Client Matrix: Water

Date Received: 03/27/2017 1820

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|----------|
| Analysis Method: | 8082A | Analysis Batch: | 460-427078 | Instrument ID: | CPESTGC7 |
| Prep Method: | 3510C | Prep Batch: | 460-426998 | Initial Weight/Volume: | 250 mL |
| Dilution: | 1.0 | | | Final Weight/Volume: | 1 mL |
| Analysis Date: | 03/30/2017 1948 | | | Injection Volume: | 1 uL |
| Prep Date: | 03/29/2017 1950 | | | Result Type: | PRIMARY |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|----------------------------------|---------------|-----------|-------|------|
| Aroclor 1016 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1221 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1232 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1242 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1248 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1254 | 0.40 | U | 0.084 | 0.40 |
| Aroclor 1260 | 0.40 | U | 0.084 | 0.40 |
| Aroclor 1268 | 0.40 | U | 0.084 | 0.40 |
| Aroclor-1262 | 0.40 | U | 0.084 | 0.40 |
| Polychlorinated biphenyls, Total | 0.40 | U | 0.098 | 0.40 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 70 | | 10 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-4-170327

Lab Sample ID: 460-130404-6

Date Sampled: 03/27/2017 1330

Client Matrix: Water

Date Received: 03/27/2017 1820

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-427078 | Instrument ID: CPESTGC7 |
| Prep Method: 3510C | Prep Batch: 460-426998 | Initial Weight/Volume: 250 mL |
| Dilution: 1.0 | | Final Weight/Volume: 1 mL |
| Analysis Date: 03/30/2017 1948 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 1950 | | Result Type: SECONDARY |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 65 | | 10 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (1-2)-170327

Lab Sample ID: 460-130404-7

Date Sampled: 03/27/2017 1415

Client Matrix: Solid

% Moisture: 11.4

Date Received: 03/27/2017 1820

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-426943 | Instrument ID: CPESTGC7 |
| Prep Method: 3546 | Prep Batch: 460-426822 | Initial Weight/Volume: +15.0414 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/29/2017 1829 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 0221 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 75 | U | 10 | 75 |
| Aroclor 1221 | | 75 | U | 10 | 75 |
| Aroclor 1232 | | 75 | U | 10 | 75 |
| Aroclor 1242 | | 75 | U | 10 | 75 |
| Aroclor 1248 | | 75 | U | 10 | 75 |
| Aroclor 1254 | | 75 | U | 10 | 75 |
| Aroclor 1260 | | 75 | U | 10 | 75 |
| Aroclor 1268 | | 75 | U | 10 | 75 |
| Aroclor-1262 | | 75 | U | 10 | 75 |
| Polychlorinated biphenyls, Total | | 75 | U | 10 | 75 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 117 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (1-2)-170327

Lab Sample ID: 460-130404-7

Date Sampled: 03/27/2017 1415

Client Matrix: Solid

% Moisture: 11.4

Date Received: 03/27/2017 1820

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-426943

Instrument ID: CPESTGC7

Prep Method: 3546

Prep Batch: 460-426822

Initial Weight/Volume: +15.0414 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/29/2017 1829

Injection Volume: 1 uL

Prep Date: 03/29/2017 0221

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 112 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (5-6)-170327

Lab Sample ID: 460-130404-8

Date Sampled: 03/27/2017 1445

Client Matrix: Solid

% Moisture: 17.3

Date Received: 03/27/2017 1820

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-426943 | Instrument ID: CPESTGC7 |
| Prep Method: 3546 | Prep Batch: 460-426822 | Initial Weight/Volume: +15.0073 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/29/2017 1853 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 0221 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 81 | U | 11 | 81 |
| Aroclor 1221 | | 81 | U | 11 | 81 |
| Aroclor 1232 | | 81 | U | 11 | 81 |
| Aroclor 1242 | | 81 | U | 11 | 81 |
| Aroclor 1248 | | 81 | U | 11 | 81 |
| Aroclor 1254 | | 81 | U | 11 | 81 |
| Aroclor 1260 | | 81 | U | 11 | 81 |
| Aroclor 1268 | | 81 | U | 11 | 81 |
| Aroclor-1262 | | 81 | U | 11 | 81 |
| Polychlorinated biphenyls, Total | | 81 | U | 11 | 81 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 116 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (5-6)-170327

Lab Sample ID: 460-130404-8

Date Sampled: 03/27/2017 1445

Client Matrix: Solid

% Moisture: 17.3

Date Received: 03/27/2017 1820

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-426943

Instrument ID: CPESTGC7

Prep Method: 3546

Prep Batch: 460-426822

Initial Weight/Volume: +15.0073 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/29/2017 1853

Injection Volume: 1 uL

Prep Date: 03/29/2017 0221

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 107 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (1-2)-170327

Lab Sample ID: 460-130404-1

Date Sampled: 03/27/2017 1010

Client Matrix: Solid

% Moisture: 16.0

Date Received: 03/27/2017 1820

6010C Metals (ICP)

Analysis Method: 6010C Analysis Batch: 460-427224 Instrument ID: ICP5
Prep Method: 3050B Prep Batch: 460-427091 Lab File ID: 427090D1.asc
Dilution: 4.0 Initial Weight/Volume: 1.00 g
Analysis Date: 03/30/2017 1510 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 0737

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 10800 | | 24.5 | 47.6 |
| Antimony | | 4.8 | U | 1.9 | 4.8 |
| Arsenic | | 2.7 | J | 1.2 | 3.6 |
| Barium | | 94.6 | | 1.7 | 47.6 |
| Beryllium | | 0.45 | J | 0.40 | 0.48 |
| Cadmium | | 0.95 | U | 0.50 | 0.95 |
| Calcium | | 5460 | | 70.5 | 1190 |
| Chromium | | 24.8 | | 1.2 | 2.4 |
| Cobalt | | 8.5 | J | 1.4 | 11.9 |
| Copper | | 34.0 | | 1.5 | 6.0 |
| Iron | | 20900 | | 26.9 | 35.7 |
| Lead | | 45.0 | | 0.93 | 2.4 |
| Magnesium | | 4000 | | 59.4 | 1190 |
| Manganese | | 403 | | 1.3 | 3.6 |
| Nickel | | 17.8 | | 1.7 | 9.5 |
| Potassium | | 2150 | | 36.1 | 1190 |
| Selenium | | 4.8 | U | 1.6 | 4.8 |
| Silver | | 2.4 | U | 0.42 | 2.4 |
| Sodium | | 109 | J | 80.6 | 1190 |
| Thallium | | 4.8 | U N | 2.1 | 4.8 |
| Vanadium | | 27.1 | | 1.2 | 11.9 |
| Zinc | | 66.4 | | 1.7 | 7.1 |

7471B Mercury (CVAA)

Analysis Method: 7471B Analysis Batch: 460-426912 Instrument ID: LEEMAN5
Prep Method: 7471B Prep Batch: 460-426839 Lab File ID: 426839HG1.PRN
Dilution: 1.0 Initial Weight/Volume: 0.60 g
Analysis Date: 03/29/2017 0933 Final Weight/Volume: 50 mL
Prep Date: 03/29/2017 0421

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.057 | | 0.013 | 0.020 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-2 (8-9)-170327

Lab Sample ID: 460-130404-2

Date Sampled: 03/27/2017 1030

Client Matrix: Solid

% Moisture: 15.0

Date Received: 03/27/2017 1820

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-427224

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-427091

Lab File ID: 427090D1.asc

Dilution: 4.0

Initial Weight/Volume: 1.03 g

Analysis Date: 03/30/2017 1536

Final Weight/Volume: 50 mL

Prep Date: 03/30/2017 0737

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 14000 | | 23.5 | 45.7 |
| Antimony | | 4.6 | U | 1.8 | 4.6 |
| Arsenic | | 1.1 | J | 1.1 | 3.4 |
| Barium | | 140 | | 1.6 | 45.7 |
| Beryllium | | 0.46 | U | 0.39 | 0.46 |
| Cadmium | | 0.91 | U | 0.48 | 0.91 |
| Calcium | | 3850 | | 67.6 | 1140 |
| Chromium | | 30.0 | | 1.1 | 2.3 |
| Cobalt | | 14.5 | | 1.3 | 11.4 |
| Copper | | 46.4 | | 1.5 | 5.7 |
| Iron | | 25600 | | 25.8 | 34.3 |
| Lead | | 31.7 | | 0.90 | 2.3 |
| Magnesium | | 7780 | | 57.0 | 1140 |
| Manganese | | 761 | | 1.2 | 3.4 |
| Nickel | | 31.3 | | 1.7 | 9.1 |
| Potassium | | 6730 | | 34.6 | 1140 |
| Selenium | | 4.6 | U | 1.6 | 4.6 |
| Silver | | 2.3 | U | 0.40 | 2.3 |
| Sodium | | 204 | J | 77.3 | 1140 |
| Thallium | | 4.6 | U N | 2.0 | 4.6 |
| Vanadium | | 35.1 | | 1.1 | 11.4 |
| Zinc | | 79.7 | | 1.7 | 6.9 |

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-426912

Instrument ID: LEEMAN5

Prep Method: 7471B

Prep Batch: 460-426839

Lab File ID: 426839HG1.PRN

Dilution: 1.0

Initial Weight/Volume: 0.62 g

Analysis Date: 03/29/2017 0935

Final Weight/Volume: 50 mL

Prep Date: 03/29/2017 0421

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.44 | | 0.013 | 0.019 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-2-170327

Lab Sample ID: 460-130404-3

Date Sampled: 03/27/2017 1115

Client Matrix: Water

Date Received: 03/27/2017 1820

6020A Metals (ICP/MS)

Analysis Method: 6020A Analysis Batch: 460-427617 Instrument ID: ICPMS3
Prep Method: 3010A Prep Batch: 460-427422 Lab File ID: 070SMPL.d
Dilution: 2.0 Initial Weight/Volume: 50 mL
Analysis Date: 03/31/2017 2213 Final Weight/Volume: 50 mL
Prep Date: 03/31/2017 1157

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------|---------------|-----------|------|------|
| Aluminum | 2570 | | 18.2 | 40.0 |
| Antimony | 0.75 | J | 0.62 | 2.0 |
| Arsenic | 1.3 | J | 0.64 | 2.0 |
| Barium | 148 | | 1.2 | 4.0 |
| Beryllium | 0.80 | U | 0.24 | 0.80 |
| Cadmium | 2.0 | U | 0.71 | 2.0 |
| Calcium | 169000 | | 60.5 | 200 |
| Chromium | 5.8 | | 1.3 | 4.0 |
| Cobalt | 11.0 | | 1.3 | 4.0 |
| Copper | 12.1 | | 1.4 | 4.0 |
| Iron | 4510 | | 42.4 | 120 |
| Lead | 12.3 | | 0.38 | 1.2 |
| Magnesium | 55300 | | 63.6 | 200 |
| Manganese | 5700 | | 2.5 | 8.0 |
| Nickel | 12.4 | | 1.4 | 4.0 |
| Potassium | 14600 | | 91.4 | 200 |
| Selenium | 10.0 | U | 0.73 | 10.0 |
| Silver | 2.0 | U | 1.3 | 2.0 |
| Sodium | 287000 | | 69.0 | 200 |
| Thallium | 0.80 | U | 0.26 | 0.80 |
| Vanadium | 7.2 | | 1.9 | 4.0 |
| Zinc | 16.4 | | 7.0 | 16.0 |

6020A Metals (ICP/MS)-Dissolved

Analysis Method: 6020A Analysis Batch: 460-427617 Instrument ID: ICPMS3
Prep Method: 3010A Prep Batch: 460-427425 Lab File ID: 054SMPL.d
Dilution: 2.0 Initial Weight/Volume: 10 mL
Analysis Date: 03/31/2017 2134 Final Weight/Volume: 10 mL
Prep Date: 03/31/2017 1215

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------|---------------|-----------|------|------|
| Aluminum | 130 | | 18.2 | 40.0 |
| Antimony | 2.0 | U | 0.62 | 2.0 |
| Arsenic | 2.0 | U | 0.64 | 2.0 |
| Barium | 116 | | 1.2 | 4.0 |
| Beryllium | 0.80 | U | 0.24 | 0.80 |
| Cadmium | 2.0 | U | 0.71 | 2.0 |
| Calcium | 156000 | | 60.5 | 200 |
| Chromium | 4.0 | U | 1.3 | 4.0 |
| Cobalt | 8.2 | | 1.3 | 4.0 |
| Copper | 1.7 | J | 1.4 | 4.0 |
| Lead | 1.5 | | 0.38 | 1.2 |
| Magnesium | 52100 | | 63.6 | 200 |
| Manganese | 5240 | | 2.5 | 8.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-2-170327

Lab Sample ID: 460-130404-3

Date Sampled: 03/27/2017 1115

Client Matrix: Water

Date Received: 03/27/2017 1820

6020A Metals (ICP/MS)-Dissolved

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------|---------------|-----------|------|------|
| Nickel | 7.7 | | 1.4 | 4.0 |
| Potassium | 13000 | | 91.4 | 200 |
| Selenium | 10.0 | U | 0.73 | 10.0 |
| Silver | 2.0 | U | 1.3 | 2.0 |
| Sodium | 272000 | | 69.0 | 200 |
| Thallium | 0.80 | U | 0.26 | 0.80 |
| Vanadium | 4.0 | U | 1.9 | 4.0 |
| Zinc | 16.0 | U | 7.0 | 16.0 |

Analysis Method: 6020A

Analysis Batch: 460-427660

Instrument ID: ICPMS3

Prep Method: 3010A

Prep Batch: 460-427425

Lab File ID: 027SMPL.d

Dilution: 2.0

Initial Weight/Volume: 10 mL

Analysis Date: 04/01/2017 1428

Final Weight/Volume: 10 mL

Prep Date: 03/31/2017 1215

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|------|-----|
| Iron | 352 | | 42.4 | 120 |

7470A Mercury (CVAA)

Analysis Method: 7470A

Analysis Batch: 460-427250

Instrument ID: LEEMAN6

Prep Method: 7470A

Prep Batch: 460-427165

Lab File ID: 427165hg1.CSV

Dilution: 1.0

Initial Weight/Volume: 30 mL

Analysis Date: 03/30/2017 1427

Final Weight/Volume: 30 mL

Prep Date: 03/30/2017 1235

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

7470A Mercury (CVAA)-Dissolved

Analysis Method: 7470A

Analysis Batch: 460-427250

Instrument ID: LEEMAN6

Prep Method: 7470A

Prep Batch: 460-427178

Lab File ID: 427165hg1.CSV

Dilution: 1.0

Initial Weight/Volume: 30 mL

Analysis Date: 03/30/2017 1527

Final Weight/Volume: 30 mL

Prep Date: 03/30/2017 1253

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-4 (5-6)-170327

Lab Sample ID: 460-130404-4

Date Sampled: 03/27/2017 1215

Client Matrix: Solid

% Moisture: 20.4

Date Received: 03/27/2017 1820

6010C Metals (ICP)

Analysis Method: 6010C Analysis Batch: 460-427224 Instrument ID: ICP5
Prep Method: 3050B Prep Batch: 460-427091 Lab File ID: 427090D1.asc
Dilution: 4.0 Initial Weight/Volume: 1.02 g
Analysis Date: 03/30/2017 1540 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 0737

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 8880 | | 25.4 | 49.3 |
| Antimony | | 4.9 | U | 1.9 | 4.9 |
| Arsenic | | 1.4 | J | 1.2 | 3.7 |
| Barium | | 80.2 | | 1.8 | 49.3 |
| Beryllium | | 0.49 | U | 0.42 | 0.49 |
| Cadmium | | 0.99 | U | 0.51 | 0.99 |
| Calcium | | 9090 | | 72.9 | 1230 |
| Chromium | | 21.7 | | 1.2 | 2.5 |
| Cobalt | | 7.6 | J | 1.4 | 12.3 |
| Copper | | 29.3 | | 1.6 | 6.2 |
| Iron | | 15800 | | 27.8 | 36.9 |
| Lead | | 34.0 | | 0.97 | 2.5 |
| Magnesium | | 4700 | | 61.5 | 1230 |
| Manganese | | 261 | | 1.3 | 3.7 |
| Nickel | | 17.2 | | 1.8 | 9.9 |
| Potassium | | 2830 | | 37.3 | 1230 |
| Selenium | | 4.9 | U | 1.7 | 4.9 |
| Silver | | 2.5 | U | 0.43 | 2.5 |
| Sodium | | 162 | J | 83.4 | 1230 |
| Thallium | | 4.9 | U N | 2.2 | 4.9 |
| Vanadium | | 23.9 | | 1.2 | 12.3 |
| Zinc | | 50.2 | | 1.8 | 7.4 |

7471B Mercury (CVAA)

Analysis Method: 7471B Analysis Batch: 460-426912 Instrument ID: LEEMAN5
Prep Method: 7471B Prep Batch: 460-426839 Lab File ID: 426839HG1.PRN
Dilution: 1.0 Initial Weight/Volume: 0.67 g
Analysis Date: 03/29/2017 0937 Final Weight/Volume: 50 mL
Prep Date: 03/29/2017 0421

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.30 | | 0.012 | 0.019 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-4 (6-7)-170327

Lab Sample ID: 460-130404-5

Date Sampled: 03/27/2017 1230

Client Matrix: Solid

% Moisture: 21.8

Date Received: 03/27/2017 1820

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-427224

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-427091

Lab File ID: 427090D1.asc

Dilution: 4.0

Initial Weight/Volume: 1.00 g

Analysis Date: 03/30/2017 1544

Final Weight/Volume: 50 mL

Prep Date: 03/30/2017 0737

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 13500 | | 26.3 | 51.2 |
| Antimony | | 5.1 | U | 2.0 | 5.1 |
| Arsenic | | 2.5 | J | 1.3 | 3.8 |
| Barium | | 153 | | 1.8 | 51.2 |
| Beryllium | | 0.44 | J | 0.43 | 0.51 |
| Cadmium | | 1.0 | U | 0.53 | 1.0 |
| Calcium | | 2880 | | 75.7 | 1280 |
| Chromium | | 24.3 | | 1.2 | 2.6 |
| Cobalt | | 8.5 | J | 1.5 | 12.8 |
| Copper | | 19.1 | | 1.7 | 6.4 |
| Iron | | 19500 | | 28.9 | 38.4 |
| Lead | | 51.0 | | 1.0 | 2.6 |
| Magnesium | | 3070 | | 63.8 | 1280 |
| Manganese | | 409 | | 1.3 | 3.8 |
| Nickel | | 16.6 | | 1.9 | 10.2 |
| Potassium | | 1920 | | 38.7 | 1280 |
| Selenium | | 5.1 | U | 1.8 | 5.1 |
| Silver | | 2.6 | U | 0.45 | 2.6 |
| Sodium | | 124 | J | 86.6 | 1280 |
| Thallium | | 5.1 | U N | 2.3 | 5.1 |
| Vanadium | | 25.2 | | 1.3 | 12.8 |
| Zinc | | 56.9 | | 1.9 | 7.7 |

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-426912

Instrument ID: LEEMAN5

Prep Method: 7471B

Prep Batch: 460-426839

Lab File ID: 426839HG1.PRN

Dilution: 1.0

Initial Weight/Volume: 0.64 g

Analysis Date: 03/29/2017 0938

Final Weight/Volume: 50 mL

Prep Date: 03/29/2017 0421

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.12 | | 0.013 | 0.020 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-4-170327

Lab Sample ID: 460-130404-6

Date Sampled: 03/27/2017 1330

Client Matrix: Water

Date Received: 03/27/2017 1820

6020A Metals (ICP/MS)

Analysis Method: 6020A Analysis Batch: 460-427617 Instrument ID: ICPMS3
Prep Method: 3010A Prep Batch: 460-427422 Lab File ID: 068SMPL.d
Dilution: 2.0 Initial Weight/Volume: 50 mL
Analysis Date: 03/31/2017 2208 Final Weight/Volume: 50 mL
Prep Date: 03/31/2017 1157

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------|---------------|-----------|------|------|
| Aluminum | 783 | | 18.2 | 40.0 |
| Antimony | 2.0 | U | 0.62 | 2.0 |
| Arsenic | 0.71 | J | 0.64 | 2.0 |
| Barium | 77.3 | | 1.2 | 4.0 |
| Beryllium | 0.80 | U | 0.24 | 0.80 |
| Cadmium | 2.0 | U | 0.71 | 2.0 |
| Calcium | 99700 | | 60.5 | 200 |
| Chromium | 4.5 | | 1.3 | 4.0 |
| Cobalt | 4.9 | | 1.3 | 4.0 |
| Copper | 6.4 | | 1.4 | 4.0 |
| Iron | 1520 | | 42.4 | 120 |
| Lead | 1.8 | | 0.38 | 1.2 |
| Magnesium | 34700 | | 63.6 | 200 |
| Manganese | 2530 | | 2.5 | 8.0 |
| Nickel | 11.2 | | 1.4 | 4.0 |
| Potassium | 11800 | | 91.4 | 200 |
| Selenium | 10.0 | U | 0.73 | 10.0 |
| Silver | 2.0 | U | 1.3 | 2.0 |
| Sodium | 111000 | | 69.0 | 200 |
| Thallium | 0.80 | U | 0.26 | 0.80 |
| Vanadium | 3.9 | J | 1.9 | 4.0 |
| Zinc | 9.7 | J | 7.0 | 16.0 |

6020A Metals (ICP/MS)-Dissolved

Analysis Method: 6020A Analysis Batch: 460-427617 Instrument ID: ICPMS3
Prep Method: 3010A Prep Batch: 460-427425 Lab File ID: 056SMPL.d
Dilution: 2.0 Initial Weight/Volume: 10 mL
Analysis Date: 03/31/2017 2139 Final Weight/Volume: 10 mL
Prep Date: 03/31/2017 1215

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------|---------------|-----------|------|------|
| Aluminum | 43.9 | | 18.2 | 40.0 |
| Antimony | 2.0 | U | 0.62 | 2.0 |
| Arsenic | 2.0 | U | 0.64 | 2.0 |
| Barium | 72.7 | | 1.2 | 4.0 |
| Beryllium | 0.80 | U | 0.24 | 0.80 |
| Cadmium | 2.0 | U | 0.71 | 2.0 |
| Calcium | 103000 | | 60.5 | 200 |
| Chromium | 1.3 | J | 1.3 | 4.0 |
| Cobalt | 4.3 | | 1.3 | 4.0 |
| Copper | 1.4 | J | 1.4 | 4.0 |
| Lead | 1.2 | U | 0.38 | 1.2 |
| Magnesium | 36300 | | 63.6 | 200 |
| Manganese | 2580 | | 2.5 | 8.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: GW-4-170327

Lab Sample ID: 460-130404-6

Date Sampled: 03/27/2017 1330

Client Matrix: Water

Date Received: 03/27/2017 1820

6020A Metals (ICP/MS)-Dissolved

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------|---------------|-----------|------|------|
| Nickel | 9.8 | | 1.4 | 4.0 |
| Potassium | 12000 | | 91.4 | 200 |
| Selenium | 10.0 | U | 0.73 | 10.0 |
| Silver | 2.0 | U | 1.3 | 2.0 |
| Sodium | 112000 | | 69.0 | 200 |
| Thallium | 0.80 | U | 0.26 | 0.80 |
| Vanadium | 4.0 | U | 1.9 | 4.0 |
| Zinc | 16.0 | U | 7.0 | 16.0 |

Analysis Method: 6020A

Analysis Batch: 460-427660

Instrument ID: ICPMS3

Prep Method: 3010A

Prep Batch: 460-427425

Lab File ID: 029SMPL.d

Dilution: 2.0

Initial Weight/Volume: 10 mL

Analysis Date: 04/01/2017 1433

Final Weight/Volume: 10 mL

Prep Date: 03/31/2017 1215

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|------|-----|
| Iron | 135 | | 42.4 | 120 |

7470A Mercury (CVAA)

Analysis Method: 7470A

Analysis Batch: 460-427250

Instrument ID: LEEMAN6

Prep Method: 7470A

Prep Batch: 460-427165

Lab File ID: 427165hg1.CSV

Dilution: 1.0

Initial Weight/Volume: 30 mL

Analysis Date: 03/30/2017 1429

Final Weight/Volume: 30 mL

Prep Date: 03/30/2017 1235

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

7470A Mercury (CVAA)-Dissolved

Analysis Method: 7470A

Analysis Batch: 460-427250

Instrument ID: LEEMAN6

Prep Method: 7470A

Prep Batch: 460-427178

Lab File ID: 427165hg1.CSV

Dilution: 1.0

Initial Weight/Volume: 30 mL

Analysis Date: 03/30/2017 1529

Final Weight/Volume: 30 mL

Prep Date: 03/30/2017 1253

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (1-2)-170327

Lab Sample ID: 460-130404-7

Date Sampled: 03/27/2017 1415

Client Matrix: Solid

% Moisture: 11.4

Date Received: 03/27/2017 1820

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-427224

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-427091

Lab File ID: 427090D1.asc

Dilution: 4.0

Initial Weight/Volume: 1.01 g

Analysis Date: 03/30/2017 1548

Final Weight/Volume: 50 mL

Prep Date: 03/30/2017 0737

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 13200 | | 23.0 | 44.7 |
| Antimony | | 4.5 | U | 1.8 | 4.5 |
| Arsenic | | 3.6 | | 1.1 | 3.4 |
| Barium | | 134 | | 1.6 | 44.7 |
| Beryllium | | 0.38 | J | 0.38 | 0.45 |
| Cadmium | | 0.89 | U | 0.47 | 0.89 |
| Calcium | | 6880 | | 66.1 | 1120 |
| Chromium | | 28.1 | | 1.1 | 2.2 |
| Cobalt | | 12.2 | | 1.3 | 11.2 |
| Copper | | 41.2 | | 1.5 | 5.6 |
| Iron | | 27200 | | 25.2 | 33.5 |
| Lead | | 109 | | 0.88 | 2.2 |
| Magnesium | | 6060 | | 55.7 | 1120 |
| Manganese | | 324 | | 1.2 | 3.4 |
| Nickel | | 26.2 | | 1.6 | 8.9 |
| Potassium | | 4690 | | 33.8 | 1120 |
| Selenium | | 4.5 | U | 1.5 | 4.5 |
| Silver | | 2.2 | U | 0.39 | 2.2 |
| Sodium | | 179 | J | 75.6 | 1120 |
| Thallium | | 4.5 | U N | 2.0 | 4.5 |
| Vanadium | | 38.5 | | 1.1 | 11.2 |
| Zinc | | 108 | | 1.6 | 6.7 |

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-426912

Instrument ID: LEEMAN5

Prep Method: 7471B

Prep Batch: 460-426846

Lab File ID: 426839HG1.PRN

Dilution: 1.0

Initial Weight/Volume: 0.61 g

Analysis Date: 03/29/2017 0955

Final Weight/Volume: 50 mL

Prep Date: 03/29/2017 0447

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.47 | | 0.012 | 0.019 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

Client Sample ID: SB-3 (5-6)-170327

Lab Sample ID: 460-130404-8

Date Sampled: 03/27/2017 1445

Client Matrix: Solid

% Moisture: 17.3

Date Received: 03/27/2017 1820

6010C Metals (ICP)

Analysis Method: 6010C Analysis Batch: 460-427224 Instrument ID: ICP5
Prep Method: 3050B Prep Batch: 460-427091 Lab File ID: 427090D1.asc
Dilution: 4.0 Initial Weight/Volume: 1.02 g
Analysis Date: 03/30/2017 1551 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 0737

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 10400 | | 24.4 | 47.4 |
| Antimony | | 4.7 | U | 1.9 | 4.7 |
| Arsenic | | 1.6 | J | 1.2 | 3.6 |
| Barium | | 75.5 | | 1.7 | 47.4 |
| Beryllium | | 0.47 | U | 0.40 | 0.47 |
| Cadmium | | 0.95 | U | 0.49 | 0.95 |
| Calcium | | 4240 | | 70.2 | 1190 |
| Chromium | | 18.2 | | 1.1 | 2.4 |
| Cobalt | | 6.5 | J | 1.4 | 11.9 |
| Copper | | 19.8 | | 1.5 | 5.9 |
| Iron | | 14700 | | 26.8 | 35.6 |
| Lead | | 76.3 | | 0.93 | 2.4 |
| Magnesium | | 2790 | | 59.2 | 1190 |
| Manganese | | 250 | | 1.2 | 3.6 |
| Nickel | | 12.9 | | 1.7 | 9.5 |
| Potassium | | 1640 | | 35.9 | 1190 |
| Selenium | | 4.7 | U | 1.6 | 4.7 |
| Silver | | 2.4 | U | 0.42 | 2.4 |
| Sodium | | 153 | J | 80.3 | 1190 |
| Thallium | | 4.7 | U N | 2.1 | 4.7 |
| Vanadium | | 21.2 | | 1.2 | 11.9 |
| Zinc | | 58.0 | | 1.7 | 7.1 |

7471B Mercury (CVAA)

Analysis Method: 7471B Analysis Batch: 460-426912 Instrument ID: LEEMAN5
Prep Method: 7471B Prep Batch: 460-426846 Lab File ID: 426839HG1.PRN
Dilution: 1.0 Initial Weight/Volume: 0.62 g
Analysis Date: 03/29/2017 0948 Final Weight/Volume: 50 mL
Prep Date: 03/29/2017 0447

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.19 | | 0.013 | 0.020 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

General Chemistry

Client Sample ID: SB-2 (1-2)-170327

Lab Sample ID: 460-130404-1

Client Matrix: Solid

Date Sampled: 03/27/2017 1010

Date Received: 03/27/2017 1820

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|------|-----|-----|--------------------|
| Percent Moisture | 16.0 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-426957 | Analysis Date: 03/29/2017 | | 1505 | | | DryWt Corrected: N |
| Percent Solids | 84.0 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-426957 | Analysis Date: 03/29/2017 | | 1505 | | | DryWt Corrected: N |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

General Chemistry

Client Sample ID: SB-2 (8-9)-170327

Lab Sample ID: 460-130404-2

Client Matrix: Solid

Date Sampled: 03/27/2017 1030

Date Received: 03/27/2017 1820

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|------|-----|-----|--------------------|
| Percent Moisture | 15.0 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-426957 | Analysis Date: 03/29/2017 | | 1505 | | | DryWt Corrected: N |
| Percent Solids | 85.0 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-426957 | Analysis Date: 03/29/2017 | | 1505 | | | DryWt Corrected: N |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

General Chemistry

Client Sample ID: SB-4 (5-6)-170327

Lab Sample ID: 460-130404-4

Date Sampled: 03/27/2017 1215

Client Matrix: Solid

Date Received: 03/27/2017 1820

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|------|-----|-----|--------------------|
| Percent Moisture | 20.4 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-426957 | Analysis Date: 03/29/2017 | | 1505 | | | DryWt Corrected: N |
| Percent Solids | 79.6 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-426957 | Analysis Date: 03/29/2017 | | 1505 | | | DryWt Corrected: N |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

General Chemistry

Client Sample ID: SB-4 (6-7)-170327

Lab Sample ID: 460-130404-5

Date Sampled: 03/27/2017 1230

Client Matrix: Solid

Date Received: 03/27/2017 1820

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|------|-----|-----|--------------------|
| Percent Moisture | 21.8 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-426957 | Analysis Date: 03/29/2017 | | 1505 | | | DryWt Corrected: N |
| Percent Solids | 78.2 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-426957 | Analysis Date: 03/29/2017 | | 1505 | | | DryWt Corrected: N |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

General Chemistry

Client Sample ID: SB-3 (1-2)-170327

Lab Sample ID: 460-130404-7

Date Sampled: 03/27/2017 1415

Client Matrix: Solid

Date Received: 03/27/2017 1820

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|------|-----|-----|--------------------|
| Percent Moisture | 11.4 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-426963 | Analysis Date: 03/29/2017 | | 1541 | | | DryWt Corrected: N |
| Percent Solids | 88.6 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-426963 | Analysis Date: 03/29/2017 | | 1541 | | | DryWt Corrected: N |

Analytical Data

Client: AKRF Inc

Job Number: 460-130404-1

General Chemistry

Client Sample ID: SB-3 (5-6)-170327

Lab Sample ID: 460-130404-8

Client Matrix: Solid

Date Sampled: 03/27/2017 1445

Date Received: 03/27/2017 1820

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|------|-----|-----|--------------------|
| Percent Moisture | 17.3 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-426963 | Analysis Date: 03/29/2017 | | 1541 | | | DryWt Corrected: N |
| Percent Solids | 82.7 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-426963 | Analysis Date: 03/29/2017 | | 1541 | | | DryWt Corrected: N |

DATA REPORTING QUALIFIERS

Client: AKRF Inc

Job Number: 460-130404-1

| Lab Section | Qualifier | Description |
|----------------|-----------|---|
| GC/MS VOA | | |
| | U | Analyzed for but not detected. |
| | J | Indicates an estimated value. |
| | * | LCS or LCSD is outside acceptance limits. |
| | * | MS or MSD is outside acceptance limits. |
| | B | The analyte was found in an associated blank, as well as in the sample. |
| GC/MS Semi VOA | | |
| | U | Analyzed for but not detected. |
| | * | Duplicate RPD exceeds control limits |
| | J | Indicates an estimated value. |
| | * | LCS or LCSD is outside acceptance limits. |
| | * | MS or MSD is outside acceptance limits. |
| | * | Surrogate is outside acceptance limits. |
| GC Semi VOA | | |
| | U | Analyzed for but not detected. |
| | * | Duplicate RPD exceeds control limits |
| | * | MS or MSD is outside acceptance limits. |
| | p | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported. |
| Metals | | |
| | * | Duplicate analysis not within control limits. |
| | U | Indicates analyzed for but not detected. |
| | 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| | J | Sample result is greater than the MDL but below the CRDL |
| | N | Spiked sample recovery is not within control limits. |

QUALITY CONTROL RESULTS

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|--|--------------|---------------|--------|------------|
| GC/MS VOA | | | | | |
| Prep Batch: 460-426725 | | | | | |
| LB3 460-426725/1-A | Neutral Leach or MeOH Extraction Blank | T | Solid | 5035 | |
| 460-130404-1 | SB-2 (1-2)-170327 | T | Solid | 5035 | |
| 460-130404-2 | SB-2 (8-9)-170327 | T | Solid | 5035 | |
| 460-130404-4 | SB-4 (5-6)-170327 | T | Solid | 5035 | |
| 460-130404-5 | SB-4 (6-7)-170327 | T | Solid | 5035 | |
| 460-130404-7 | SB-3 (1-2)-170327 | T | Solid | 5035 | |
| 460-130404-8 | SB-3 (5-6)-170327 | T | Solid | 5035 | |
| Analysis Batch:460-427072 | | | | | |
| LCS 460-427072/3 | Lab Control Sample | T | Water | 8260C | |
| MB 460-427072/6 | Method Blank | T | Water | 8260C | |
| 460-130404-3 | GW-2-170327 | T | Water | 8260C | |
| 460-130404-6 | GW-4-170327 | T | Water | 8260C | |
| 460-130404-9TB | TB-170327 | T | Water | 8260C | |
| 460-130538-D-19 MS | Matrix Spike | T | Water | 8260C | |
| 460-130538-D-19 MSD | Matrix Spike Duplicate | T | Water | 8260C | |
| Analysis Batch:460-427321 | | | | | |
| LCS 460-427321/3 | Lab Control Sample | T | Solid | 8260C | |
| LCSD 460-427321/4 | Lab Control Sample Duplicate | T | Solid | 8260C | |
| MB 460-427321/7 | Method Blank | T | Solid | 8260C | |
| LB3 460-426725/1-A | Neutral Leach or MeOH Extraction Blank | T | Solid | 8260C | 460-426725 |
| Analysis Batch:460-427483 | | | | | |
| LCS 460-427483/3 | Lab Control Sample | T | Solid | 8260C | |
| LCSD 460-427483/4 | Lab Control Sample Duplicate | T | Solid | 8260C | |
| MB 460-427483/7 | Method Blank | T | Solid | 8260C | |
| 460-130404-1 | SB-2 (1-2)-170327 | T | Solid | 8260C | 460-426725 |
| 460-130404-2 | SB-2 (8-9)-170327 | T | Solid | 8260C | 460-426725 |
| 460-130404-4 | SB-4 (5-6)-170327 | T | Solid | 8260C | 460-426725 |
| 460-130404-5 | SB-4 (6-7)-170327 | T | Solid | 8260C | 460-426725 |
| 460-130404-7 | SB-3 (1-2)-170327 | T | Solid | 8260C | 460-426725 |
| 460-130404-8 | SB-3 (5-6)-170327 | T | Solid | 8260C | 460-426725 |

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|------------------------------|-----------------|---------------|--------|------------|
| GC/MS Semi VOA | | | | | |
| Prep Batch: 460-426877 | | | | | |
| LCS 460-426877/2-A | Lab Control Sample | T | Water | 3510C | |
| LCS 460-426877/4-A | Lab Control Sample | T | Water | 3510C | |
| LCSD 460-426877/3-A | Lab Control Sample Duplicate | T | Water | 3510C | |
| LCSD 460-426877/5-A | Lab Control Sample Duplicate | T | Water | 3510C | |
| MB 460-426877/1-A | Method Blank | T | Water | 3510C | |
| 460-130404-3 | GW-2-170327 | T | Water | 3510C | |
| 460-130404-6 | GW-4-170327 | T | Water | 3510C | |
| Prep Batch: 460-426922 | | | | | |
| LCS 460-426922/2-A | Lab Control Sample | T | Solid | 3546 | |
| LCS 460-426922/3-A | Lab Control Sample | T | Solid | 3546 | |
| MB 460-426922/1-A | Method Blank | T | Solid | 3546 | |
| 460-130404-1 | SB-2 (1-2)-170327 | T | Solid | 3546 | |
| 460-130404-1MS | Matrix Spike | T | Solid | 3546 | |
| 460-130404-1MSD | Matrix Spike Duplicate | T | Solid | 3546 | |
| Prep Batch: 460-426923 | | | | | |
| LCS 460-426923/2-A | Lab Control Sample | T | Solid | 3546 | |
| LCS 460-426923/3-A | Lab Control Sample | T | Solid | 3546 | |
| MB 460-426923/1-A | Method Blank | T | Solid | 3546 | |
| 460-130404-2 | SB-2 (8-9)-170327 | T | Solid | 3546 | |
| 460-130404-4 | SB-4 (5-6)-170327 | T | Solid | 3546 | |
| 460-130404-4MS | Matrix Spike | T | Solid | 3546 | |
| 460-130404-4MSD | Matrix Spike Duplicate | T | Solid | 3546 | |
| 460-130404-5 | SB-4 (6-7)-170327 | T | Solid | 3546 | |
| 460-130404-8 | SB-3 (5-6)-170327 | T | Solid | 3546 | |
| Prep Batch: 460-426926 | | | | | |
| LCS 460-426926/2-A | Lab Control Sample | T | Solid | 3546 | |
| LCS 460-426926/3-A | Lab Control Sample | T | Solid | 3546 | |
| MB 460-426926/1-A | Method Blank | T | Solid | 3546 | |
| 460-130404-7 | SB-3 (1-2)-170327 | T | Solid | 3546 | |
| 460-130404-7MS | Matrix Spike | T | Solid | 3546 | |
| 460-130404-7MSD | Matrix Spike Duplicate | T | Solid | 3546 | |
| Analysis Batch:460-427021 | | | | | |
| LCS 460-426877/2-A | Lab Control Sample | T | Water | 8270D | 460-426877 |
| LCS 460-426877/4-A | Lab Control Sample | T | Water | 8270D | 460-426877 |
| LCSD 460-426877/3-A | Lab Control Sample Duplicate | T | Water | 8270D | 460-426877 |
| LCSD 460-426877/5-A | Lab Control Sample Duplicate | T | Water | 8270D | 460-426877 |
| MB 460-426877/1-A | Method Blank | T | Water | 8270D | 460-426877 |
| 460-130404-3 | GW-2-170327 | T | Water | 8270D | 460-426877 |
| 460-130404-6 | GW-4-170327 | T | Water | 8270D | 460-426877 |

TestAmerica Edison

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|------------------------|--------------|---------------|--------|------------|
| GC/MS Semi VOA | | | | | |
| Analysis Batch:460-427026 | | | | | |
| LCS 460-426922/3-A | Lab Control Sample | T | Solid | 8270D | 460-426922 |
| MB 460-426922/1-A | Method Blank | T | Solid | 8270D | 460-426922 |
| 460-130404-1 | SB-2 (1-2)-170327 | T | Solid | 8270D | 460-426922 |
| 460-130404-1MS | Matrix Spike | T | Solid | 8270D | 460-426922 |
| 460-130404-1MSD | Matrix Spike Duplicate | T | Solid | 8270D | 460-426922 |
| Analysis Batch:460-427031 | | | | | |
| LCS 460-426923/2-A | Lab Control Sample | T | Solid | 8270D | 460-426923 |
| LCS 460-426923/3-A | Lab Control Sample | T | Solid | 8270D | 460-426923 |
| MB 460-426923/1-A | Method Blank | T | Solid | 8270D | 460-426923 |
| 460-130404-2 | SB-2 (8-9)-170327 | T | Solid | 8270D | 460-426923 |
| 460-130404-4 | SB-4 (5-6)-170327 | T | Solid | 8270D | 460-426923 |
| 460-130404-4MS | Matrix Spike | T | Solid | 8270D | 460-426923 |
| 460-130404-4MSD | Matrix Spike Duplicate | T | Solid | 8270D | 460-426923 |
| 460-130404-8 | SB-3 (5-6)-170327 | T | Solid | 8270D | 460-426923 |
| Analysis Batch:460-427162 | | | | | |
| LCS 460-426922/2-A | Lab Control Sample | T | Solid | 8270D | 460-426922 |
| 460-130404-5 | SB-4 (6-7)-170327 | T | Solid | 8270D | 460-426923 |
| Analysis Batch:460-427323 | | | | | |
| LCS 460-426926/2-A | Lab Control Sample | T | Solid | 8270D | 460-426926 |
| LCS 460-426926/3-A | Lab Control Sample | T | Solid | 8270D | 460-426926 |
| MB 460-426926/1-A | Method Blank | T | Solid | 8270D | 460-426926 |
| 460-130404-7 | SB-3 (1-2)-170327 | T | Solid | 8270D | 460-426926 |
| 460-130404-7MS | Matrix Spike | T | Solid | 8270D | 460-426926 |
| 460-130404-7MSD | Matrix Spike Duplicate | T | Solid | 8270D | 460-426926 |

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|------------------------|-----------------|---------------|--------|------------|
| GC Semi VOA | | | | | |
| Prep Batch: 460-426820 | | | | | |
| LCS 460-426820/2-A | Lab Control Sample | T | Solid | 3546 | |
| MB 460-426820/1-A | Method Blank | T | Solid | 3546 | |
| 460-130404-1 | SB-2 (1-2)-170327 | T | Solid | 3546 | |
| 460-130404-1MS | Matrix Spike | T | Solid | 3546 | |
| 460-130404-1MSD | Matrix Spike Duplicate | T | Solid | 3546 | |
| 460-130404-2 | SB-2 (8-9)-170327 | T | Solid | 3546 | |
| 460-130404-4 | SB-4 (5-6)-170327 | T | Solid | 3546 | |
| 460-130404-5 | SB-4 (6-7)-170327 | T | Solid | 3546 | |
| 460-130404-7 | SB-3 (1-2)-170327 | T | Solid | 3546 | |
| 460-130404-8 | SB-3 (5-6)-170327 | T | Solid | 3546 | |
| Prep Batch: 460-426822 | | | | | |
| LCS 460-426822/2-A | Lab Control Sample | T | Solid | 3546 | |
| MB 460-426822/1-A | Method Blank | T | Solid | 3546 | |
| 460-130404-1 | SB-2 (1-2)-170327 | T | Solid | 3546 | |
| 460-130404-1MS | Matrix Spike | T | Solid | 3546 | |
| 460-130404-1MSD | Matrix Spike Duplicate | T | Solid | 3546 | |
| 460-130404-2 | SB-2 (8-9)-170327 | T | Solid | 3546 | |
| 460-130404-4 | SB-4 (5-6)-170327 | T | Solid | 3546 | |
| 460-130404-5 | SB-4 (6-7)-170327 | T | Solid | 3546 | |
| 460-130404-7 | SB-3 (1-2)-170327 | T | Solid | 3546 | |
| 460-130404-8 | SB-3 (5-6)-170327 | T | Solid | 3546 | |
| Analysis Batch:460-426902 | | | | | |
| LCS 460-426820/2-A | Lab Control Sample | T | Solid | 8081B | 460-426820 |
| MB 460-426820/1-A | Method Blank | T | Solid | 8081B | 460-426820 |
| 460-130404-1 | SB-2 (1-2)-170327 | T | Solid | 8081B | 460-426820 |
| 460-130404-1MS | Matrix Spike | T | Solid | 8081B | 460-426820 |
| 460-130404-1MSD | Matrix Spike Duplicate | T | Solid | 8081B | 460-426820 |
| 460-130404-2 | SB-2 (8-9)-170327 | T | Solid | 8081B | 460-426820 |
| 460-130404-4 | SB-4 (5-6)-170327 | T | Solid | 8081B | 460-426820 |
| 460-130404-5 | SB-4 (6-7)-170327 | T | Solid | 8081B | 460-426820 |
| 460-130404-7 | SB-3 (1-2)-170327 | T | Solid | 8081B | 460-426820 |
| 460-130404-8 | SB-3 (5-6)-170327 | T | Solid | 8081B | 460-426820 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|------------------------------|--------------|---------------|--------|------------|
| GC Semi VOA | | | | | |
| Analysis Batch:460-426943 | | | | | |
| LCS 460-426822/2-A | Lab Control Sample | T | Solid | 8082A | 460-426822 |
| MB 460-426822/1-A | Method Blank | T | Solid | 8082A | 460-426822 |
| 460-130404-1 | SB-2 (1-2)-170327 | T | Solid | 8082A | 460-426822 |
| 460-130404-1MS | Matrix Spike | T | Solid | 8082A | 460-426822 |
| 460-130404-1MSD | Matrix Spike Duplicate | T | Solid | 8082A | 460-426822 |
| 460-130404-2 | SB-2 (8-9)-170327 | T | Solid | 8082A | 460-426822 |
| 460-130404-4 | SB-4 (5-6)-170327 | T | Solid | 8082A | 460-426822 |
| 460-130404-5 | SB-4 (6-7)-170327 | T | Solid | 8082A | 460-426822 |
| 460-130404-7 | SB-3 (1-2)-170327 | T | Solid | 8082A | 460-426822 |
| 460-130404-8 | SB-3 (5-6)-170327 | T | Solid | 8082A | 460-426822 |
| Prep Batch: 460-426997 | | | | | |
| LCS 460-426997/2-A | Lab Control Sample | T | Water | 3510C | |
| LCSD 460-426997/3-A | Lab Control Sample Duplicate | T | Water | 3510C | |
| MB 460-426997/1-A | Method Blank | T | Water | 3510C | |
| 460-130404-3 | GW-2-170327 | T | Water | 3510C | |
| 460-130404-6 | GW-4-170327 | T | Water | 3510C | |
| Prep Batch: 460-426998 | | | | | |
| LCS 460-426998/2-A | Lab Control Sample | T | Water | 3510C | |
| LCSD 460-426998/3-A | Lab Control Sample Duplicate | T | Water | 3510C | |
| MB 460-426998/1-A | Method Blank | T | Water | 3510C | |
| 460-130404-3 | GW-2-170327 | T | Water | 3510C | |
| 460-130404-6 | GW-4-170327 | T | Water | 3510C | |
| Analysis Batch:460-427078 | | | | | |
| 460-130404-3 | GW-2-170327 | T | Water | 8082A | 460-426998 |
| 460-130404-6 | GW-4-170327 | T | Water | 8082A | 460-426998 |
| Analysis Batch:460-427093 | | | | | |
| LCS 460-426997/2-A | Lab Control Sample | T | Water | 8081B | 460-426997 |
| LCSD 460-426997/3-A | Lab Control Sample Duplicate | T | Water | 8081B | 460-426997 |
| MB 460-426997/1-A | Method Blank | T | Water | 8081B | 460-426997 |
| 460-130404-3 | GW-2-170327 | T | Water | 8081B | 460-426997 |
| 460-130404-6 | GW-4-170327 | T | Water | 8081B | 460-426997 |
| Analysis Batch:460-427113 | | | | | |
| LCS 460-426998/2-A | Lab Control Sample | T | Water | 8082A | 460-426998 |
| LCSD 460-426998/3-A | Lab Control Sample Duplicate | T | Water | 8082A | 460-426998 |
| MB 460-426998/1-A | Method Blank | T | Water | 8082A | 460-426998 |

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|-------------------------------------|--------------|---------------|--------|------------|
| Metals | | | | | |
| Prep Batch: 460-426839 | | | | | |
| LCSSRM 460-426839/11-A | ^2LCS-Certified Reference Material | T | Solid | 7471B | |
| MB 460-426839/10-A | Method Blank | T | Solid | 7471B | |
| 460-130404-1 | SB-2 (1-2)-170327 | T | Solid | 7471B | |
| 460-130404-2 | SB-2 (8-9)-170327 | T | Solid | 7471B | |
| 460-130404-4 | SB-4 (5-6)-170327 | T | Solid | 7471B | |
| 460-130404-5 | SB-4 (6-7)-170327 | T | Solid | 7471B | |
| 460-130440-A-3-F DU | Duplicate | T | Solid | 7471B | |
| 460-130440-A-3-G MS | Matrix Spike | T | Solid | 7471B | |
| Prep Batch: 460-426846 | | | | | |
| LCSSRM 460-426846/2-A | ^20LCS-Certified Reference Material | T | Solid | 7471B | |
| MB 460-426846/1-A | Method Blank | T | Solid | 7471B | |
| 460-130404-7 | SB-3 (1-2)-170327 | T | Solid | 7471B | |
| 460-130404-8 | SB-3 (5-6)-170327 | T | Solid | 7471B | |
| 460-130404-8DU | Duplicate | T | Solid | 7471B | |
| 460-130404-8MS | Matrix Spike | T | Solid | 7471B | |
| Analysis Batch:460-426912 | | | | | |
| LCSSRM 460-426839/11-A | ^2LCS-Certified Reference Material | T | Solid | 7471B | 460-426839 |
| MB 460-426839/10-A | Method Blank | T | Solid | 7471B | 460-426839 |
| LCSSRM 460-426846/2-A | ^20LCS-Certified Reference Material | T | Solid | 7471B | 460-426846 |
| MB 460-426846/1-A | Method Blank | T | Solid | 7471B | 460-426846 |
| 460-130404-1 | SB-2 (1-2)-170327 | T | Solid | 7471B | 460-426839 |
| 460-130404-2 | SB-2 (8-9)-170327 | T | Solid | 7471B | 460-426839 |
| 460-130404-4 | SB-4 (5-6)-170327 | T | Solid | 7471B | 460-426839 |
| 460-130404-5 | SB-4 (6-7)-170327 | T | Solid | 7471B | 460-426839 |
| 460-130404-7 | SB-3 (1-2)-170327 | T | Solid | 7471B | 460-426846 |
| 460-130404-8 | SB-3 (5-6)-170327 | T | Solid | 7471B | 460-426846 |
| 460-130404-8DU | Duplicate | T | Solid | 7471B | 460-426846 |
| 460-130404-8MS | Matrix Spike | T | Solid | 7471B | 460-426846 |
| 460-130440-A-3-F DU | Duplicate | T | Solid | 7471B | 460-426839 |
| 460-130440-A-3-G MS | Matrix Spike | T | Solid | 7471B | 460-426839 |
| Prep Batch: 460-427091 | | | | | |
| LCSSRM 460-427091/2-A | ^4 LCS-Certified Reference Material | T | Solid | 3050B | |
| MB 460-427091/1-A | ^2 Method Blank | T | Solid | 3050B | |
| 460-130404-1 | SB-2 (1-2)-170327 | T | Solid | 3050B | |
| 460-130404-1DU | Duplicate | T | Solid | 3050B | |
| 460-130404-1MS | Matrix Spike | T | Solid | 3050B | |
| 460-130404-2 | SB-2 (8-9)-170327 | T | Solid | 3050B | |
| 460-130404-4 | SB-4 (5-6)-170327 | T | Solid | 3050B | |
| 460-130404-5 | SB-4 (6-7)-170327 | T | Solid | 3050B | |
| 460-130404-7 | SB-3 (1-2)-170327 | T | Solid | 3050B | |
| 460-130404-8 | SB-3 (5-6)-170327 | T | Solid | 3050B | |

TestAmerica Edison

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|----------------------------------|--------------|---------------|--------|------------|
| Metals | | | | | |
| Prep Batch: 460-427165 | | | | | |
| LCS 460-427165/2-A | Lab Control Sample | T | Water | 7470A | |
| MB 460-427165/1-A | Method Blank | T | Water | 7470A | |
| 460-130404-3 | GW-2-170327 | T | Water | 7470A | |
| 460-130404-6 | GW-4-170327 | T | Water | 7470A | |
| 460-130527-B-2-A DU | Duplicate | T | Water | 7470A | |
| 460-130527-E-2-B MS | Matrix Spike | T | Water | 7470A | |
| 460-130527-E-2-C MSD | Matrix Spike Duplicate | T | Water | 7470A | |
| Prep Batch: 460-427178 | | | | | |
| LCS 460-427178/3-A | Lab Control Sample | T | Water | 7470A | |
| MB 460-427166/1-B | Method Blank | D | Water | 7470A | |
| 460-130331-A-3-A DU | Duplicate | D | Water | 7470A | |
| 460-130331-D-3-B MS | Matrix Spike | D | Water | 7470A | |
| 460-130404-3 | GW-2-170327 | D | Water | 7470A | |
| 460-130404-6 | GW-4-170327 | D | Water | 7470A | |
| Analysis Batch:460-427224 | | | | | |
| LCSSRM 460-427091/2-A ^4 | LCS-Certified Reference Material | T | Solid | 6010C | 460-427091 |
| MB 460-427091/1-A ^2 | Method Blank | T | Solid | 6010C | 460-427091 |
| 460-130404-1 | SB-2 (1-2)-170327 | T | Solid | 6010C | 460-427091 |
| 460-130404-1DU | Duplicate | T | Solid | 6010C | 460-427091 |
| 460-130404-1MS | Matrix Spike | T | Solid | 6010C | 460-427091 |
| 460-130404-2 | SB-2 (8-9)-170327 | T | Solid | 6010C | 460-427091 |
| 460-130404-4 | SB-4 (5-6)-170327 | T | Solid | 6010C | 460-427091 |
| 460-130404-5 | SB-4 (6-7)-170327 | T | Solid | 6010C | 460-427091 |
| 460-130404-7 | SB-3 (1-2)-170327 | T | Solid | 6010C | 460-427091 |
| 460-130404-8 | SB-3 (5-6)-170327 | T | Solid | 6010C | 460-427091 |
| Analysis Batch:460-427250 | | | | | |
| LCS 460-427165/2-A | Lab Control Sample | T | Water | 7470A | 460-427165 |
| MB 460-427165/1-A | Method Blank | T | Water | 7470A | 460-427165 |
| LCS 460-427178/3-A | Lab Control Sample | T | Water | 7470A | 460-427178 |
| MB 460-427166/1-B | Method Blank | D | Water | 7470A | 460-427178 |
| 460-130331-A-3-A DU | Duplicate | D | Water | 7470A | 460-427178 |
| 460-130331-D-3-B MS | Matrix Spike | D | Water | 7470A | 460-427178 |
| 460-130404-3 | GW-2-170327 | T | Water | 7470A | 460-427165 |
| 460-130404-3 | GW-2-170327 | D | Water | 7470A | 460-427178 |
| 460-130404-6 | GW-4-170327 | T | Water | 7470A | 460-427165 |
| 460-130404-6 | GW-4-170327 | D | Water | 7470A | 460-427178 |
| 460-130527-B-2-A DU | Duplicate | T | Water | 7470A | 460-427165 |
| 460-130527-E-2-B MS | Matrix Spike | T | Water | 7470A | 460-427165 |
| 460-130527-E-2-C MSD | Matrix Spike Duplicate | T | Water | 7470A | 460-427165 |

TestAmerica Edison

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|--------------------|--------------|---------------|--------|------------|
| Metals | | | | | |
| Prep Batch: 460-427422 | | | | | |
| LCS 460-427422/2-A ^2 | Lab Control Sample | T | Water | 3010A | |
| MB 460-427422/1-A ^2 | Method Blank | T | Water | 3010A | |
| 460-130404-3 | GW-2-170327 | T | Water | 3010A | |
| 460-130404-6 | GW-4-170327 | T | Water | 3010A | |
| 460-130404-6DU | Duplicate | T | Water | 3010A | |
| 460-130404-6MS | Matrix Spike | T | Water | 3010A | |
| Prep Batch: 460-427425 | | | | | |
| LCS 460-427425/2-A | Lab Control Sample | T | Water | 3010A | |
| MB 460-427425/1-A | Method Blank | T | Water | 3010A | |
| 460-130404-3 | GW-2-170327 | D | Water | 3010A | |
| 460-130404-3DU | Duplicate | D | Water | 3010A | |
| 460-130404-3MS | Matrix Spike | D | Water | 3010A | |
| 460-130404-6 | GW-4-170327 | D | Water | 3010A | |
| Analysis Batch:460-427617 | | | | | |
| LCS 460-427422/2-A ^2 | Lab Control Sample | T | Water | 6020A | 460-427422 |
| MB 460-427422/1-A ^2 | Method Blank | T | Water | 6020A | 460-427422 |
| LCS 460-427425/2-A | Lab Control Sample | T | Water | 6020A | 460-427425 |
| MB 460-427425/1-A | Method Blank | T | Water | 6020A | 460-427425 |
| 460-130404-3 | GW-2-170327 | T | Water | 6020A | 460-427422 |
| 460-130404-3 | GW-2-170327 | D | Water | 6020A | 460-427425 |
| 460-130404-3DU | Duplicate | D | Water | 6020A | 460-427425 |
| 460-130404-3MS | Matrix Spike | D | Water | 6020A | 460-427425 |
| 460-130404-6 | GW-4-170327 | T | Water | 6020A | 460-427422 |
| 460-130404-6DU | Duplicate | T | Water | 6020A | 460-427422 |
| 460-130404-6MS | Matrix Spike | T | Water | 6020A | 460-427422 |
| 460-130404-6 | GW-4-170327 | D | Water | 6020A | 460-427425 |
| Analysis Batch:460-427660 | | | | | |
| LCS 460-427425/2-A | Lab Control Sample | T | Water | 6020A | 460-427425 |
| MB 460-427425/1-A | Method Blank | T | Water | 6020A | 460-427425 |
| 460-130404-3 | GW-2-170327 | D | Water | 6020A | 460-427425 |
| 460-130404-3DU | Duplicate | D | Water | 6020A | 460-427425 |
| 460-130404-3MS | Matrix Spike | D | Water | 6020A | 460-427425 |
| 460-130404-6 | GW-4-170327 | D | Water | 6020A | 460-427425 |

Report Basis

D = Dissolved

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|-------------------|--------------|---------------|----------|------------|
| General Chemistry | | | | | |
| Analysis Batch:460-426957 | | | | | |
| 460-130404-1 | SB-2 (1-2)-170327 | T | Solid | Moisture | |
| 460-130404-2 | SB-2 (8-9)-170327 | T | Solid | Moisture | |
| 460-130404-4 | SB-4 (5-6)-170327 | T | Solid | Moisture | |
| 460-130404-5 | SB-4 (6-7)-170327 | T | Solid | Moisture | |
| 460-130404-5DU | Duplicate | T | Solid | Moisture | |
| Analysis Batch:460-426963 | | | | | |
| 460-130404-7 | SB-3 (1-2)-170327 | T | Solid | Moisture | |
| 460-130404-8 | SB-3 (5-6)-170327 | T | Solid | Moisture | |
| 460-130441-A-2 DU | Duplicate | T | Solid | Moisture | |

Report Basis

T = Total

Client: AKRF Inc

Job Number: 460-130404-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Solid

| Lab Sample ID | Client Sample ID | DCA %Rec | BFB %Rec | DBFM %Rec | TOL %Rec |
|--------------------|-------------------|-------------|-------------|--------------|-------------|
| 460-130404-1 | SB-2 (1-2)-170327 | 97 | 106 | 109 | 98 |
| 460-130404-2 | SB-2 (8-9)-170327 | 98 | 107 | 110 | 99 |
| 460-130404-4 | SB-4 (5-6)-170327 | 96 | 106 | 108 | 98 |
| 460-130404-5 | SB-4 (6-7)-170327 | 100 | 106 | 109 | 99 |
| 460-130404-7 | SB-3 (1-2)-170327 | 99 | 109 | 111 | 100 |
| 460-130404-8 | SB-3 (5-6)-170327 | 100 | 110 | 108 | 100 |
| MB 460-427321/7 | | 92 | 104 | 103 | 95 |
| MB 460-427483/7 | | 91 | 104 | 104 | 96 |
| LB3 460-426725/1-A | | 87 | 101 | 100 | 93 |
| LCS 460-427321/3 | | 96 | 105 | 105 | 99 |
| LCS 460-427483/3 | | 93 | 106 | 106 | 100 |
| LCSD 460-427321/4 | | 92 | 103 | 102 | 97 |
| LCSD 460-427483/4 | | 93 | 106 | 103 | 99 |

| Surrogate | Acceptance Limits |
|------------------------------------|-------------------|
| DCA = 1,2-Dichloroethane-d4 (Surr) | 78-135 |
| BFB = 4-Bromofluorobenzene | 67-126 |
| DBFM = Dibromofluoromethane (Surr) | 61-149 |
| TOL = Toluene-d8 (Surr) | 73-121 |

Client: AKRF Inc

Job Number: 460-130404-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Water

| Lab Sample ID | Client Sample ID | DCA %Rec | BFB %Rec | DBFM %Rec | TOL %Rec |
|------------------------|------------------|-------------|-------------|--------------|-------------|
| 460-130404-3 | GW-2-170327 | 108 | 85 | 92 | 95 |
| 460-130404-6 | GW-4-170327 | 111 | 87 | 94 | 97 |
| 460-130404-9 | TB-170327 | 111 | 86 | 91 | 95 |
| MB 460-427072/6 | | 110 | 86 | 92 | 95 |
| LCS 460-427072/3 | | 108 | 87 | 91 | 96 |
| 460-130538-D-19 MS | | 107 | 88 | 90 | 94 |
| 460-130538-D-19 MSD | | 108 | 87 | 90 | 94 |

| Surrogate | Acceptance Limits |
|------------------------------------|-------------------|
| DCA = 1,2-Dichloroethane-d4 (Surr) | 74-132 |
| BFB = 4-Bromofluorobenzene | 77-124 |
| DBFM = Dibromofluoromethane (Surr) | 72-131 |
| TOL = Toluene-d8 (Surr) | 80-120 |

Client: AKRF Inc

Job Number: 460-130404-1

Surrogate Recovery Report**8270D Semivolatile Organic Compounds (GC/MS)****Client Matrix: Solid**

| Lab Sample ID | Client Sample ID | TBP %Rec | FBP %Rec | 2FP %Rec | NBZ %Rec | PHL %Rec | TPHL %Rec |
|--------------------|--------------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| 460-130404-1 | SB-2 (1-2)-170327 | 31 | 72 | 33 | 78 | 46 | 80 |
| 460-130404-2 | SB-2 (8-9)-170327 | 52 | 76 | 63 | 70 | 74 | 91 |
| 460-130404-4 | SB-4 (5-6)-170327 | 41 | 76 | 61 | 69 | 68 | 93 |
| 460-130404-5 | SB-4 (6-7)-170327 | 73 | 84 | 66 | 73 | 64 | 52 |
| 460-130404-7 | SB-3 (1-2)-170327 | 41 | 79 | 59 | 80 | 65 | 57 |
| 460-130404-8 | SB-3 (5-6)-170327 | 82 | 66 | 62 | 63 | 63 | 81 |
| MB 460-426922/1-A | | 58 | 76 | 26 | 77 | 36 | 66 |
| MB 460-426923/1-A | | 79 | 73 | 71 | 70 | 69 | 88 |
| MB 460-426926/1-A | | 67 | 72 | 71 | 82 | 76 | 86 |
| LCS 460-426922/2-A | | 77 | 80 | 73 | 89 | 74 | 80 |
| LCS 460-426922/3-A | | 103 | 90 | 44 | 101* | 67 | 98 |
| LCS 460-426923/2-A | | 120* | 90 | 86 | 86 | 86 | 101 |
| LCS 460-426923/3-A | | 110* | 92 | 90 | 88 | 89 | 110* |
| LCS 460-426926/2-A | | 88 | 94 | 91 | 104* | 96* | 98 |
| LCS 460-426926/3-A | | 79 | 87 | 88 | 100* | 90 | 105 |
| 460-130404-1 MS | SB-2 (1-2)-170327 MS | 45 | 77 | 34 | 79 | 38 | 75 |
| 460-130404-4 MS | SB-4 (5-6)-170327 MS | 57 | 74 | 61 | 67 | 67 | 88 |
| 460-130404-7 MS | SB-3 (1-2)-170327 MS | 58 | 82 | 61 | 84 | 65 | 53 |
| 460-130404-1 MSD | SB-2 (1-2)-170327 MSD | 45 | 75 | 30 | 79 | 54 | 70 |
| 460-130404-4 MSD | SB-4 (5-6)-170327 MSD | 62 | 79 | 63 | 71 | 70 | 87 |
| 460-130404-7 MSD | SB-3 (1-2)-170327 MSD | 54 | 83 | 61 | 85 | 65 | 51 |

| Surrogate | Acceptance Limits |
|-----------------------------------|-------------------|
| TBP = 2,4,6-Tribromophenol (Surr) | 10-103 |
| FBP = 2-Fluorobiphenyl | 38-95 |
| 2FP = 2-Fluorophenol (Surr) | 25-92 |
| NBZ = Nitrobenzene-d5 (Surr) | 37-94 |
| PHL = Phenol-d5 (Surr) | 32-91 |
| TPHL = Terphenyl-d14 (Surr) | 24-109 |

Client: AKRF Inc

Job Number: 460-130404-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

| Lab Sample ID | Client Sample ID | TBP %Rec | FBP %Rec | 2FP %Rec | NBZ %Rec | PHL %Rec | TPHL %Rec |
|------------------------|------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| 460-130404-3 | GW-2-170327 | 87 | 85 | 41 | 87 | 25 | 82 |
| 460-130404-6 | GW-4-170327 | 89 | 83 | 41 | 88 | 26 | 83 |
| MB 460-426877/1-A | | 82 | 87 | 42 | 93 | 26 | 83 |
| LCS 460-426877/2-A | | 84 | 86 | 35 | 88 | 22 | 77 |
| LCS 460-426877/4-A | | 77 | 84 | 33 | 89 | 19 | 77 |
| LCSD 460-426877/3-A | | 84 | 88 | 33 | 92 | 21 | 78 |
| LCSD 460-426877/5-A | | 76 | 82 | 34 | 87 | 19 | 87 |

| Surrogate | Acceptance Limits |
|-----------------------------------|-------------------|
| TBP = 2,4,6-Tribromophenol (Surr) | 26-139 |
| FBP = 2-Fluorobiphenyl | 45-107 |
| 2FP = 2-Fluorophenol (Surr) | 25-58 |
| NBZ = Nitrobenzene-d5 (Surr) | 51-108 |
| PHL = Phenol-d5 (Surr) | 14-39 |
| TPHL = Terphenyl-d14 (Surr) | 40-148 |

Client: AKRF Inc

Job Number: 460-130404-1

Surrogate Recovery Report

8081B Organochlorine Pesticides (GC)

Client Matrix: Solid

| Lab Sample ID | Client Sample ID | DCBP1 %Rec | DCBP2 %Rec | TCX1 %Rec | TCX2 %Rec |
|--------------------|--------------------------|---------------|---------------|--------------|--------------|
| 460-130404-1 | SB-2 (1-2)-170327 | 91 | 96 | 90 | 95 |
| 460-130404-2 | SB-2 (8-9)-170327 | 90 | 93 | 90 | 96 |
| 460-130404-4 | SB-4 (5-6)-170327 | 90 | 89 | 89 | 92 |
| 460-130404-5 | SB-4 (6-7)-170327 | 96 | 97 | 94 | 103 |
| 460-130404-7 | SB-3 (1-2)-170327 | 95 | 94 | 94 | 107 |
| 460-130404-8 | SB-3 (5-6)-170327 | 92 | 93 | 91 | 101 |
| MB 460-426820/1-A | | 99 | 96 | 91 | 105 |
| LCS 460-426820/2-A | | 97 | 94 | 95 | 99 |
| 460-130404-1 MS | SB-2 (1-2)-170327 MS | 90 | 93 | 88 | 93 |
| 460-130404-1 MSD | SB-2 (1-2)-170327 MSD | 94 | 92 | 95 | 98 |

| Surrogate | Acceptance Limits |
|-------------------------------|-------------------|
| DCBP = DCB Decachlorobiphenyl | 50-150 |
| TCX = Tetrachloro-m-xylene | 47-150 |

Client: AKRF Inc

Job Number: 460-130404-1

Surrogate Recovery Report

8081B Organochlorine Pesticides (GC)

Client Matrix: Water

| Lab Sample ID | Client Sample ID | DCBP1 %Rec | DCBP2 %Rec | TCX1 %Rec | TCX2 %Rec |
|------------------------|------------------|---------------|---------------|--------------|--------------|
| 460-130404-3 | GW-2-170327 | 38 | 39 | 32 | 35 |
| 460-130404-6 | GW-4-170327 | 41 | 44 | 37 | 39 |
| MB 460-426997/1-A | | 95 | 100 | 79 | 82 |
| LCS 460-426997/2-A | | 70 | 74 | 84 | 84 |
| LCSD 460-426997/3-A | | 71 | 73 | 85 | 82 |

| Surrogate | Acceptance Limits |
|-------------------------------|-------------------|
| DCBP = DCB Decachlorobiphenyl | 10-150 |
| TCX = Tetrachloro-m-xylene | 16-150 |

Client: AKRF Inc

Job Number: 460-130404-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

| Lab Sample ID | Client Sample ID | DCBP1 %Rec | DCBP2 %Rec |
|--------------------|--------------------------|---------------|---------------|
| 460-130404-1 | SB-2 (1-2)-170327 | 147 | 138 |
| 460-130404-2 | SB-2 (8-9)-170327 | 115 | 117 |
| 460-130404-4 | SB-4 (5-6)-170327 | 104 | 111 |
| 460-130404-5 | SB-4 (6-7)-170327 | 109 | 110 |
| 460-130404-7 | SB-3 (1-2)-170327 | 112 | 117 |
| 460-130404-8 | SB-3 (5-6)-170327 | 107 | 116 |
| MB 460-426822/1-A | | 113 | 115 |
| LCS 460-426822/2-A | | 123 | 129 |
| 460-130404-1 MS | SB-2 (1-2)-170327 MS | 115 | 116 |
| 460-130404-1 MSD | SB-2 (1-2)-170327 MSD | 117 | 117 |

| | |
|-------------------------------|-------------------|
| Surrogate | Acceptance Limits |
| DCBP = DCB Decachlorobiphenyl | 35-150 |

Client: AKRF Inc

Job Number: 460-130404-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Water

| Lab Sample ID | Client Sample ID | DCBP1 %Rec | DCBP2 %Rec |
|------------------------|------------------|---------------|---------------|
| 460-130404-3 | GW-2-170327 | 74 | 78 |
| 460-130404-6 | GW-4-170327 | 65 | 70 |
| MB 460-426998/1-A | | 70 | 63 |
| LCS 460-426998/2-A | | 67 | 66 |
| LCSD 460-426998/3-A | | 68 | 63 |

| | |
|-------------------------------|-------------------|
| Surrogate | Acceptance Limits |
| DCBP = DCB Decachlorobiphenyl | 10-150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Neutral Leach or MeOH Extraction Blank - Batch: 460-426725

**Method: 8260C
Preparation: 5035**

| | | |
|-----------------------------------|----------------------------|----------------------------|
| Lab Sample ID: LB3 460-426725/1-A | Analysis Batch: 460-427321 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: 460-426725 | Lab File ID: K65783.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 g |
| Analysis Date: 03/31/2017 0800 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: 03/28/2017 1428 | | |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------------------|--------|------|------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.38 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.44 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.41 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.32 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.47 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | 20 | U | 6.4 | 20 |
| 2-Butanone (MEK) | 5.0 | U | 0.77 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.94 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 2.2 | 5.0 |
| Acetone | 2.85 | J | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.20 | 1.0 |
| Bromoform | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | 1.0 | U | 0.32 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.43 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.43 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | 1.0 | U | 0.35 | 1.0 |
| Chloroform | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | 1.0 | U | 0.38 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | 1.0 | U | 0.46 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.38 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.32 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | 5.0 | U | 0.90 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.50 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.32 | 1.0 |
| m-Xylene & p-Xylene | 0.210 | J | 0.11 | 1.0 |
| o-Xylene | 1.0 | U | 0.16 | 1.0 |
| Styrene | 1.0 | U | 0.15 | 1.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Neutral Leach or MeOH Extraction Blank - Batch: 460-426725

**Method: 8260C
Preparation: 5035**

| | | |
|-----------------------------------|----------------------------|----------------------------|
| Lab Sample ID: LB3 460-426725/1-A | Analysis Batch: 460-427321 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: 460-426725 | Lab File ID: K65783.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 g |
| Analysis Date: 03/31/2017 0800 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: 03/28/2017 1428 | | |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|------|-----|
| Tetrachloroethene | 1.0 | U | 0.28 | 1.0 |
| Toluene | 1.0 | U | 0.19 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.39 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.10 | 1.0 |
| Trichloroethene | 1.0 | U | 0.26 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.34 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.39 | 1.0 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------------|-------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 87 | 78 - 135 |
| 4-Bromofluorobenzene | 101 | 67 - 126 |
| Dibromofluoromethane (Surr) | 100 | 61 - 149 |
| Toluene-d8 (Surr) | 93 | 73 - 121 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-427072

**Method: 8260C
Preparation: 5030C**

Lab Sample ID: MB 460-427072/6
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/30/2017 1042
 Prep Date: 03/30/2017 1042
 Leach Date: N/A

Analysis Batch: 460-427072
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CVOAMS13
 Lab File ID: P25581.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------------------|--------|------|-------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.19 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.080 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.24 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.34 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.35 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.27 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.23 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.22 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.25 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.18 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dioxane | 50 | U | 8.7 | 50 |
| 2-Butanone (MEK) | 5.0 | U | 2.2 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.72 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 0.63 | 5.0 |
| Acetone | 1.25 | J | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.090 | 1.0 |
| Bromoform | 1.0 | U | 0.18 | 1.0 |
| Bromomethane | 1.0 | U | 0.18 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.22 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.33 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.24 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.30 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.22 | 1.0 |
| Chloroethane | 1.0 | U | 0.37 | 1.0 |
| Chloroform | 1.0 | U | 0.22 | 1.0 |
| Chloromethane | 1.0 | U | 0.22 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.26 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.16 | 1.0 |
| Cyclohexane | 1.0 | U | 0.26 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.15 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.14 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.30 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.19 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.32 | 1.0 |
| Methyl acetate | 5.0 | U | 0.58 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.13 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.22 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.21 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.28 | 1.0 |
| o-Xylene | 1.0 | U | 0.32 | 1.0 |
| Styrene | 1.0 | U | 0.17 | 1.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-427072

Method: 8260C
Preparation: 5030C

Lab Sample ID: MB 460-427072/6
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2017 1042
Prep Date: 03/30/2017 1042
Leach Date: N/A

Analysis Batch: 460-427072
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: CVOAMS13
Lab File ID: P25581.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|-------|-----|
| Tetrachloroethene | 1.0 | U | 0.12 | 1.0 |
| Toluene | 1.0 | U | 0.25 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.18 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.19 | 1.0 |
| Trichloroethene | 1.0 | U | 0.22 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.15 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.060 | 1.0 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------------|-------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 110 | 74 - 132 |
| 4-Bromofluorobenzene | 86 | 77 - 124 |
| Dibromofluoromethane (Surr) | 92 | 72 - 131 |
| Toluene-d8 (Surr) | 95 | 80 - 120 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample - Batch: 460-427072

Method: 8260C
Preparation: 5030C

Lab Sample ID: LCS 460-427072/3
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/30/2017 0926
 Prep Date: 03/30/2017 0926
 Leach Date: N/A

Analysis Batch: 460-427072
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CVOAMS13
 Lab File ID: P25578.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------------------------------------|--------------|--------|--------|----------|------|
| 1,1,1-Trichloroethane | 20.0 | 22.2 | 111 | 75 - 125 | |
| 1,1,2,2-Tetrachloroethane | 20.0 | 22.4 | 112 | 74 - 120 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 20.0 | 16.4 | 82 | 59 - 150 | |
| 1,1,2-Trichloroethane | 20.0 | 21.8 | 109 | 78 - 120 | |
| 1,1-Dichloroethane | 20.0 | 23.8 | 119 | 77 - 123 | |
| 1,1-Dichloroethene | 20.0 | 19.5 | 97 | 74 - 123 | |
| 1,2,3-Trichlorobenzene | 20.0 | 16.6 | 83 | 78 - 131 | |
| 1,2,4-Trichlorobenzene | 20.0 | 16.9 | 84 | 80 - 124 | |
| 1,2-Dibromo-3-Chloropropane | 20.0 | 15.6 | 78 | 55 - 134 | |
| 1,2-Dichlorobenzene | 20.0 | 20.2 | 101 | 80 - 120 | |
| 1,2-Dichloroethane | 20.0 | 24.1 | 121 | 76 - 121 | |
| 1,2-Dichloropropane | 20.0 | 22.7 | 113 | 77 - 123 | |
| 1,3-Dichlorobenzene | 20.0 | 20.2 | 101 | 80 - 120 | |
| 1,4-Dichlorobenzene | 20.0 | 19.9 | 99 | 80 - 120 | |
| 1,4-Dioxane | 400 | 452 | 113 | 10 - 150 | |
| 2-Butanone (MEK) | 100 | 95.8 | 96 | 64 - 120 | |
| 2-Hexanone | 100 | 107 | 107 | 71 - 125 | |
| 4-Methyl-2-pentanone (MIBK) | 100 | 108 | 108 | 78 - 124 | |
| Acetone | 100 | 101 | 101 | 39 - 150 | |
| Benzene | 20.0 | 23.5 | 117 | 77 - 121 | |
| Bromoform | 20.0 | 16.3 | 81 | 53 - 120 | |
| Bromomethane | 20.0 | 24.1 | 120 | 10 - 150 | |
| Carbon disulfide | 20.0 | 19.3 | 97 | 69 - 133 | |
| Carbon tetrachloride | 20.0 | 20.5 | 102 | 70 - 132 | |
| Chlorobenzene | 20.0 | 19.9 | 99 | 80 - 120 | |
| Chlorobromomethane | 20.0 | 18.8 | 94 | 77 - 127 | |
| Chlorodibromomethane | 20.0 | 19.6 | 98 | 73 - 120 | |
| Chloroethane | 20.0 | 33.9 | 170 | 52 - 150 | * |
| Chloroform | 20.0 | 22.3 | 111 | 80 - 120 | |
| Chloromethane | 20.0 | 20.1 | 101 | 56 - 131 | |
| cis-1,2-Dichloroethene | 20.0 | 20.6 | 103 | 80 - 120 | |
| cis-1,3-Dichloropropene | 20.0 | 22.9 | 115 | 77 - 120 | |
| Cyclohexane | 20.0 | 18.8 | 94 | 56 - 150 | |
| Dichlorobromomethane | 20.0 | 21.9 | 109 | 76 - 120 | |
| Dichlorodifluoromethane | 20.0 | 17.0 | 85 | 50 - 131 | |
| Ethylbenzene | 20.0 | 20.1 | 100 | 80 - 120 | |
| Ethylene Dibromide | 20.0 | 20.5 | 103 | 80 - 120 | |
| Isopropylbenzene | 20.0 | 20.9 | 105 | 80 - 123 | |
| Methyl acetate | 100 | 112 | 112 | 66 - 144 | |
| Methyl tert-butyl ether | 20.0 | 22.2 | 111 | 79 - 122 | |
| Methylcyclohexane | 20.0 | 15.7 | 78 | 61 - 145 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample - Batch: 460-427072

Method: 8260C
Preparation: 5030C

Lab Sample ID: LCS 460-427072/3
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/30/2017 0926
 Prep Date: 03/30/2017 0926
 Leach Date: N/A

Analysis Batch: 460-427072
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CVOAMS13
 Lab File ID: P25578.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------------|--------------|--------|--------|-------------------|------|
| Methylene Chloride | 20.0 | 19.9 | 100 | 77 - 123 | |
| m-Xylene & p-Xylene | 20.0 | 20.0 | 100 | 80 - 120 | |
| o-Xylene | 20.0 | 20.0 | 100 | 80 - 120 | |
| Styrene | 20.0 | 20.3 | 101 | 80 - 120 | |
| Tetrachloroethene | 20.0 | 18.0 | 90 | 78 - 122 | |
| Toluene | 20.0 | 21.7 | 109 | 80 - 120 | |
| trans-1,2-Dichloroethene | 20.0 | 19.8 | 99 | 79 - 120 | |
| trans-1,3-Dichloropropene | 20.0 | 23.2 | 116 | 76 - 120 | |
| Trichloroethene | 20.0 | 18.0 | 90 | 77 - 120 | |
| Trichlorofluoromethane | 20.0 | 22.9 | 114 | 71 - 143 | |
| Vinyl chloride | 20.0 | 19.0 | 95 | 62 - 138 | |
| Surrogate | | % Rec | | Acceptance Limits | |
| 1,2-Dichloroethane-d4 (Surr) | | 108 | | 74 - 132 | |
| 4-Bromofluorobenzene | | 87 | | 77 - 124 | |
| Dibromofluoromethane (Surr) | | 91 | | 72 - 131 | |
| Toluene-d8 (Surr) | | 96 | | 80 - 120 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427072**

**Method: 8260C
Preparation: 5030C**

| | | |
|--------------------------------------|----------------------------|-----------------------------|
| MS Lab Sample ID: 460-130538-D-19 MS | Analysis Batch: 460-427072 | Instrument ID: CVOAMS13 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: P25584.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/30/2017 1158 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 1158 | | 5 mL |
| Leach Date: N/A | | |

| | | |
|--|----------------------------|-----------------------------|
| MSD Lab Sample ID: 460-130538-D-19 MSD | Analysis Batch: 460-427072 | Instrument ID: CVOAMS13 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: P25585.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/30/2017 1223 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 1223 | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---------------------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| 1,1,1-Trichloroethane | 101 | 104 | 75 - 125 | 3 | 30 | | |
| 1,1,2,2-Tetrachloroethane | 103 | 106 | 74 - 120 | 3 | 30 | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 79 | 77 | 59 - 150 | 2 | 30 | | |
| 1,1,2-Trichloroethane | 97 | 102 | 78 - 120 | 5 | 30 | | |
| 1,1-Dichloroethane | 109 | 110 | 77 - 123 | 1 | 30 | | |
| 1,1-Dichloroethene | 87 | 89 | 74 - 123 | 3 | 30 | | |
| 1,2,3-Trichlorobenzene | 72 | 76 | 78 - 131 | 5 | 30 | * | * |
| 1,2,4-Trichlorobenzene | 75 | 78 | 80 - 124 | 5 | 30 | * | * |
| 1,2-Dibromo-3-Chloropropane | 70 | 74 | 55 - 134 | 6 | 30 | | |
| 1,2-Dichlorobenzene | 92 | 95 | 80 - 120 | 3 | 30 | | |
| 1,2-Dichloroethane | 110 | 113 | 76 - 121 | 3 | 30 | | |
| 1,2-Dichloropropane | 103 | 105 | 77 - 123 | 2 | 30 | | |
| 1,3-Dichlorobenzene | 92 | 94 | 80 - 120 | 2 | 30 | | |
| 1,4-Dichlorobenzene | 91 | 93 | 80 - 120 | 1 | 30 | | |
| 1,4-Dioxane | 93 | 102 | 10 - 150 | 10 | 30 | | |
| 2-Butanone (MEK) | 84 | 84 | 64 - 120 | 0 | 30 | | |
| 2-Hexanone | 95 | 97 | 71 - 125 | 2 | 30 | | |
| 4-Methyl-2-pentanone (MIBK) | 100 | 101 | 78 - 124 | 0 | 30 | | |
| Acetone | 75 | 75 | 39 - 150 | 0 | 30 | | |
| Benzene | 106 | 109 | 77 - 121 | 3 | 30 | | |
| Bromoform | 72 | 76 | 53 - 120 | 5 | 30 | | |
| Bromomethane | 126 | 153 | 10 - 150 | 19 | 30 | | * |
| Carbon disulfide | 85 | 88 | 69 - 133 | 3 | 30 | | |
| Carbon tetrachloride | 93 | 95 | 70 - 132 | 3 | 30 | | |
| Chlorobenzene | 89 | 92 | 80 - 120 | 3 | 30 | | |
| Chlorobromomethane | 86 | 87 | 77 - 127 | 1 | 30 | | |
| Chlorodibromomethane | 87 | 90 | 73 - 120 | 3 | 30 | | |
| Chloroethane | 166 | 150 | 52 - 150 | 10 | 30 | * | |
| Chloroform | 104 | 104 | 80 - 120 | 0 | 30 | | |
| Chloromethane | 88 | 91 | 56 - 131 | 3 | 30 | | |
| cis-1,2-Dichloroethene | 91 | 97 | 80 - 120 | 6 | 30 | | |
| cis-1,3-Dichloropropene | 103 | 105 | 77 - 120 | 2 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427072**

**Method: 8260C
Preparation: 5030C**

| | | |
|--------------------------------------|----------------------------|-----------------------------|
| MS Lab Sample ID: 460-130538-D-19 MS | Analysis Batch: 460-427072 | Instrument ID: CVOAMS13 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: P25584.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/30/2017 1158 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 1158 | | 5 mL |
| Leach Date: N/A | | |

| | | |
|--|----------------------------|-----------------------------|
| MSD Lab Sample ID: 460-130538-D-19 MSD | Analysis Batch: 460-427072 | Instrument ID: CVOAMS13 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: P25585.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/30/2017 1223 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 1223 | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Cyclohexane | 87 | 87 | 56 - 150 | 0 | 30 | | |
| Dichlorobromomethane | 98 | 101 | 76 - 120 | 3 | 30 | | |
| Dichlorodifluoromethane | 54 | 55 | 50 - 131 | 2 | 30 | | |
| Ethylbenzene | 92 | 92 | 80 - 120 | 0 | 30 | | |
| Ethylene Dibromide | 92 | 93 | 80 - 120 | 1 | 30 | | |
| Isopropylbenzene | 94 | 97 | 80 - 123 | 3 | 30 | | |
| Methyl acetate | 102 | 104 | 66 - 144 | 3 | 30 | | |
| Methyl tert-butyl ether | 102 | 106 | 79 - 122 | 4 | 30 | | |
| Methylcyclohexane | 76 | 78 | 61 - 145 | 2 | 30 | | |
| Methylene Chloride | 90 | 92 | 77 - 123 | 2 | 30 | | |
| m-Xylene & p-Xylene | 91 | 93 | 80 - 120 | 2 | 30 | | |
| o-Xylene | 91 | 92 | 80 - 120 | 1 | 30 | | |
| Styrene | 92 | 93 | 80 - 120 | 1 | 30 | | |
| Tetrachloroethene | 78 | 80 | 78 - 122 | 2 | 30 | | |
| Toluene | 99 | 101 | 80 - 120 | 2 | 30 | | |
| trans-1,2-Dichloroethene | 89 | 91 | 79 - 120 | 1 | 30 | | |
| trans-1,3-Dichloropropene | 105 | 107 | 76 - 120 | 2 | 30 | | |
| Trichloroethene | 83 | 83 | 77 - 120 | 1 | 30 | | |
| Trichlorofluoromethane | 91 | 92 | 71 - 143 | 1 | 30 | | |
| Vinyl chloride | 85 | 87 | 62 - 138 | 2 | 30 | | |

| Surrogate | MS % Rec | MSD % Rec | Acceptance Limits |
|------------------------------|----------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 107 | 108 | 74 - 132 |
| 4-Bromofluorobenzene | 88 | 87 | 77 - 124 |
| Dibromofluoromethane (Surr) | 90 | 90 | 72 - 131 |
| Toluene-d8 (Surr) | 94 | 94 | 80 - 120 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-427321

**Method: 8260C
Preparation: N/A**

Lab Sample ID: MB 460-427321/7
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/31/2017 0736
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 460-427321
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CVOAMS9
 Lab File ID: K65782.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------------------|--------|------|------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.38 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.44 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.41 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.32 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.47 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | 20 | U | 6.4 | 20 |
| 2-Butanone (MEK) | 5.0 | U | 0.77 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.94 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 2.2 | 5.0 |
| Acetone | 2.56 | J | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.20 | 1.0 |
| Bromoform | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | 1.0 | U | 0.32 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.43 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.43 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | 1.0 | U | 0.35 | 1.0 |
| Chloroform | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | 1.0 | U | 0.38 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | 1.0 | U | 0.46 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.38 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.32 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | 5.0 | U | 0.90 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.50 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.32 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.11 | 1.0 |
| o-Xylene | 1.0 | U | 0.16 | 1.0 |
| Styrene | 1.0 | U | 0.15 | 1.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-427321

**Method: 8260C
Preparation: N/A**

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Lab Sample ID: MB 460-427321/7 | Analysis Batch: 460-427321 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65782.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 0736 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|------|-----|
| Tetrachloroethene | 1.0 | U | 0.28 | 1.0 |
| Toluene | 1.0 | U | 0.19 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.39 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.10 | 1.0 |
| Trichloroethene | 1.0 | U | 0.26 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.34 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.39 | 1.0 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------------|-------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 92 | 78 - 135 |
| 4-Bromofluorobenzene | 104 | 67 - 126 |
| Dibromofluoromethane (Surr) | 103 | 61 - 149 |
| Toluene-d8 (Surr) | 95 | 73 - 121 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427321 **Method: 8260C**
Preparation: N/A

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-427321/3 | Analysis Batch: 460-427321 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65778.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 0554 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-427321/4 | Analysis Batch: 460-427321 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65779.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 0619 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|---------------------------------------|--------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 1,1,1-Trichloroethane | 99 | 100 | 80 - 125 | 1 | 30 | | |
| 1,1,2,2-Tetrachloroethane | 101 | 98 | 72 - 131 | 3 | 30 | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 107 | 110 | 78 - 132 | 3 | 30 | | |
| 1,1,2-Trichloroethane | 99 | 100 | 76 - 124 | 0 | 30 | | |
| 1,1-Dichloroethane | 94 | 95 | 80 - 124 | 1 | 30 | | |
| 1,1-Dichloroethene | 100 | 99 | 79 - 132 | 1 | 30 | | |
| 1,2,3-Trichlorobenzene | 105 | 101 | 75 - 123 | 4 | 30 | | |
| 1,2,4-Trichlorobenzene | 103 | 102 | 74 - 124 | 1 | 30 | | |
| 1,2-Dibromo-3-Chloropropane | 90 | 87 | 65 - 129 | 3 | 30 | | |
| 1,2-Dichlorobenzene | 101 | 99 | 80 - 121 | 2 | 30 | | |
| 1,2-Dichloroethane | 97 | 95 | 68 - 120 | 2 | 30 | | |
| 1,2-Dichloropropane | 97 | 98 | 77 - 124 | 1 | 30 | | |
| 1,3-Dichlorobenzene | 97 | 99 | 79 - 124 | 2 | 30 | | |
| 1,4-Dichlorobenzene | 98 | 98 | 79 - 121 | 1 | 30 | | |
| 1,4-Dioxane | 104 | 107 | 67 - 150 | 4 | 30 | | |
| 2-Butanone (MEK) | 112 | 114 | 61 - 140 | 2 | 30 | | |
| 2-Hexanone | 101 | 105 | 78 - 120 | 4 | 30 | | |
| 4-Methyl-2-pentanone (MIBK) | 106 | 109 | 80 - 120 | 3 | 30 | | |
| Acetone | 108 | 105 | 75 - 120 | 3 | 30 | | |
| Benzene | 96 | 96 | 75 - 127 | 0 | 30 | | |
| Bromoform | 101 | 97 | 19 - 150 | 4 | 30 | | |
| Bromomethane | 87 | 87 | 59 - 136 | 0 | 30 | | |
| Carbon disulfide | 99 | 98 | 74 - 130 | 1 | 30 | | |
| Carbon tetrachloride | 95 | 99 | 77 - 138 | 5 | 30 | | |
| Chlorobenzene | 98 | 100 | 80 - 120 | 2 | 30 | | |
| Chlorobromomethane | 102 | 104 | 80 - 125 | 2 | 30 | | |
| Chlorodibromomethane | 97 | 96 | 67 - 143 | 1 | 30 | | |
| Chloroethane | 86 | 85 | 50 - 139 | 1 | 30 | | |
| Chloroform | 97 | 99 | 80 - 122 | 2 | 30 | | |
| Chloromethane | 86 | 83 | 66 - 128 | 3 | 30 | | |
| cis-1,2-Dichloroethene | 101 | 101 | 80 - 123 | 1 | 30 | | |
| cis-1,3-Dichloropropene | 92 | 91 | 75 - 124 | 1 | 30 | | |
| Cyclohexane | 105 | 107 | 67 - 135 | 2 | 30 | | |
| Dichlorobromomethane | 97 | 99 | 76 - 129 | 2 | 30 | | |
| Dichlorodifluoromethane | 102 | 92 | 72 - 127 | 10 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427321 **Method: 8260C**
Preparation: N/A

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-427321/3 | Analysis Batch: 460-427321 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65778.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 0554 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-427321/4 | Analysis Batch: 460-427321 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65779.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 0619 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------------|------------------|-------------------|--------------------------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Ethylbenzene | 101 | 101 | 79 - 124 | 0 | 30 | | |
| Ethylene Dibromide | 102 | 99 | 80 - 122 | 3 | 30 | | |
| Isopropylbenzene | 105 | 106 | 80 - 125 | 1 | 30 | | |
| Methyl acetate | 100 | 96 | 73 - 123 | 4 | 30 | | |
| Methyl tert-butyl ether | 104 | 102 | 80 - 120 | 2 | 30 | | |
| Methylcyclohexane | 102 | 101 | 71 - 137 | 0 | 30 | | |
| Methylene Chloride | 102 | 100 | 79 - 128 | 2 | 30 | | |
| m-Xylene & p-Xylene | 101 | 103 | 79 - 121 | 2 | 30 | | |
| o-Xylene | 105 | 106 | 79 - 123 | 1 | 30 | | |
| Styrene | 102 | 104 | 78 - 123 | 1 | 30 | | |
| Tetrachloroethene | 107 | 107 | 73 - 130 | 0 | 30 | | |
| Toluene | 98 | 99 | 75 - 122 | 1 | 30 | | |
| trans-1,2-Dichloroethene | 101 | 101 | 80 - 129 | 0 | 30 | | |
| trans-1,3-Dichloropropene | 90 | 92 | 72 - 121 | 1 | 30 | | |
| Trichloroethene | 99 | 103 | 79 - 122 | 4 | 30 | | |
| Trichlorofluoromethane | 96 | 95 | 68 - 136 | 1 | 30 | | |
| Vinyl chloride | 86 | 87 | 70 - 134 | 1 | 30 | | |
| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 96 | 92 | 78 - 135 | | | | |
| 4-Bromofluorobenzene | 105 | 103 | 67 - 126 | | | | |
| Dibromofluoromethane (Surr) | 105 | 102 | 61 - 149 | | | | |
| Toluene-d8 (Surr) | 99 | 97 | 73 - 121 | | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-427483

**Method: 8260C
Preparation: N/A**

Lab Sample ID: MB 460-427483/7
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/31/2017 1950
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 460-427483
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CVOAMS9
 Lab File ID: K65812.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------------------|--------|------|------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.38 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.44 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.41 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.32 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.47 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | 20 | U | 6.4 | 20 |
| 2-Butanone (MEK) | 5.0 | U | 0.77 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.94 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 2.2 | 5.0 |
| Acetone | 2.67 | J | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.20 | 1.0 |
| Bromoform | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | 1.0 | U | 0.32 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.43 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.43 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | 1.0 | U | 0.35 | 1.0 |
| Chloroform | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | 1.0 | U | 0.38 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | 1.0 | U | 0.46 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.38 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.32 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | 5.0 | U | 0.90 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.50 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.32 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.11 | 1.0 |
| o-Xylene | 1.0 | U | 0.16 | 1.0 |
| Styrene | 1.0 | U | 0.15 | 1.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-427483

**Method: 8260C
Preparation: N/A**

Lab Sample ID: MB 460-427483/7
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/31/2017 1950
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 460-427483
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CVOAMS9
 Lab File ID: K65812.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|------|-----|
| Tetrachloroethene | 1.0 | U | 0.28 | 1.0 |
| Toluene | 1.0 | U | 0.19 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.39 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.10 | 1.0 |
| Trichloroethene | 1.0 | U | 0.26 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.34 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.39 | 1.0 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------------|-------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 91 | 78 - 135 |
| 4-Bromofluorobenzene | 104 | 67 - 126 |
| Dibromofluoromethane (Surr) | 104 | 61 - 149 |
| Toluene-d8 (Surr) | 96 | 73 - 121 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427483 **Method: 8260C**
Preparation: N/A

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-427483/3 | Analysis Batch: 460-427483 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65808.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 1802 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-427483/4 | Analysis Batch: 460-427483 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65809.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 1837 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|---------------------------------------|--------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 1,1,1-Trichloroethane | 112 | 96 | 80 - 125 | 15 | 30 | | |
| 1,1,2,2-Tetrachloroethane | 99 | 94 | 72 - 131 | 6 | 30 | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 120 | 103 | 78 - 132 | 15 | 30 | | |
| 1,1,2-Trichloroethane | 101 | 92 | 76 - 124 | 9 | 30 | | |
| 1,1-Dichloroethane | 101 | 86 | 80 - 124 | 16 | 30 | | |
| 1,1-Dichloroethene | 107 | 92 | 79 - 132 | 15 | 30 | | |
| 1,2,3-Trichlorobenzene | 106 | 95 | 75 - 123 | 11 | 30 | | |
| 1,2,4-Trichlorobenzene | 107 | 95 | 74 - 124 | 12 | 30 | | |
| 1,2-Dibromo-3-Chloropropane | 96 | 88 | 65 - 129 | 8 | 30 | | |
| 1,2-Dichlorobenzene | 103 | 92 | 80 - 121 | 12 | 30 | | |
| 1,2-Dichloroethane | 99 | 87 | 68 - 120 | 13 | 30 | | |
| 1,2-Dichloropropane | 102 | 88 | 77 - 124 | 15 | 30 | | |
| 1,3-Dichlorobenzene | 104 | 91 | 79 - 124 | 13 | 30 | | |
| 1,4-Dichlorobenzene | 104 | 91 | 79 - 121 | 14 | 30 | | |
| 1,4-Dioxane | 105 | 95 | 67 - 150 | 10 | 30 | | |
| 2-Butanone (MEK) | 116 | 101 | 61 - 140 | 13 | 30 | | |
| 2-Hexanone | 107 | 95 | 78 - 120 | 11 | 30 | | |
| 4-Methyl-2-pentanone (MIBK) | 112 | 98 | 80 - 120 | 13 | 30 | | |
| Acetone | 108 | 97 | 75 - 120 | 11 | 30 | | |
| Benzene | 103 | 90 | 75 - 127 | 13 | 30 | | |
| Bromoform | 105 | 97 | 19 - 150 | 8 | 30 | | |
| Bromomethane | 85 | 87 | 59 - 136 | 3 | 30 | | |
| Carbon disulfide | 107 | 92 | 74 - 130 | 15 | 30 | | |
| Carbon tetrachloride | 109 | 93 | 77 - 138 | 15 | 30 | | |
| Chlorobenzene | 106 | 91 | 80 - 120 | 15 | 30 | | |
| Chlorobromomethane | 111 | 97 | 80 - 125 | 13 | 30 | | |
| Chlorodibromomethane | 103 | 91 | 67 - 143 | 12 | 30 | | |
| Chloroethane | 88 | 89 | 50 - 139 | 1 | 30 | | |
| Chloroform | 106 | 92 | 80 - 122 | 15 | 30 | | |
| Chloromethane | 81 | 85 | 66 - 128 | 5 | 30 | | |
| cis-1,2-Dichloroethene | 107 | 94 | 80 - 123 | 13 | 30 | | |
| cis-1,3-Dichloropropene | 97 | 86 | 75 - 124 | 12 | 30 | | |
| Cyclohexane | 116 | 97 | 67 - 135 | 18 | 30 | | |
| Dichlorobromomethane | 104 | 90 | 76 - 129 | 14 | 30 | | |
| Dichlorodifluoromethane | 101 | 99 | 72 - 127 | 2 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427483 **Method: 8260C**
Preparation: N/A

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-427483/3 | Analysis Batch: 460-427483 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65808.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 1802 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-427483/4 | Analysis Batch: 460-427483 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65809.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 1837 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------------|------------------|-------------------|--------------------------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Ethylbenzene | 107 | 96 | 79 - 124 | 11 | 30 | | |
| Ethylene Dibromide | 109 | 95 | 80 - 122 | 14 | 30 | | |
| Isopropylbenzene | 111 | 100 | 80 - 125 | 11 | 30 | | |
| Methyl acetate | 95 | 90 | 73 - 123 | 5 | 30 | | |
| Methyl tert-butyl ether | 108 | 95 | 80 - 120 | 12 | 30 | | |
| Methylcyclohexane | 111 | 92 | 71 - 137 | 19 | 30 | | |
| Methylene Chloride | 105 | 90 | 79 - 128 | 15 | 30 | | |
| m-Xylene & p-Xylene | 109 | 95 | 79 - 121 | 13 | 30 | | |
| o-Xylene | 110 | 97 | 79 - 123 | 12 | 30 | | |
| Styrene | 108 | 95 | 78 - 123 | 13 | 30 | | |
| Tetrachloroethene | 117 | 101 | 73 - 130 | 15 | 30 | | |
| Toluene | 105 | 92 | 75 - 122 | 13 | 30 | | |
| trans-1,2-Dichloroethene | 107 | 93 | 80 - 129 | 14 | 30 | | |
| trans-1,3-Dichloropropene | 97 | 86 | 72 - 121 | 13 | 30 | | |
| Trichloroethene | 107 | 93 | 79 - 122 | 14 | 30 | | |
| Trichlorofluoromethane | 99 | 104 | 68 - 136 | 5 | 30 | | |
| Vinyl chloride | 87 | 89 | 70 - 134 | 3 | 30 | | |
| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 93 | 93 | 78 - 135 | | | | |
| 4-Bromofluorobenzene | 106 | 106 | 67 - 126 | | | | |
| Dibromofluoromethane (Surr) | 106 | 103 | 61 - 149 | | | | |
| Toluene-d8 (Surr) | 100 | 99 | 73 - 121 | | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-426877

**Method: 8270D
Preparation: 3510C**

Lab Sample ID: MB 460-426877/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/30/2017 0442
 Prep Date: 03/29/2017 0902
 Leach Date: N/A

Analysis Batch: 460-427021
 Prep Batch: 460-426877
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CBNAMS4
 Lab File ID: U333919.D
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 2 mL
 Injection Volume: 5 uL

| Analyte | Result | Qual | MDL | RL |
|------------------------------|--------|------|------|-----|
| 1,1'-Biphenyl | 10 | U | 0.63 | 10 |
| 1,2,4,5-Tetrachlorobenzene | 10 | U | 0.43 | 10 |
| 2,2'-oxybis[1-chloropropane] | 10 | U | 0.93 | 10 |
| 2,3,4,6-Tetrachlorophenol | 10 | U | 0.69 | 10 |
| 2,4,5-Trichlorophenol | 10 | U | 0.49 | 10 |
| 2,4,6-Trichlorophenol | 10 | U | 0.53 | 10 |
| 2,4-Dichlorophenol | 10 | U | 0.63 | 10 |
| 2,4-Dimethylphenol | 10 | U | 0.91 | 10 |
| 2,4-Dinitrophenol | 20 | U | 2.4 | 20 |
| 2,4-Dinitrotoluene | 2.0 | U | 1.0 | 2.0 |
| 2,6-Dinitrotoluene | 2.0 | U | 0.88 | 2.0 |
| 2-Chloronaphthalene | 10 | U | 0.61 | 10 |
| 2-Chlorophenol | 10 | U | 0.74 | 10 |
| 2-Methylnaphthalene | 10 | U | 0.88 | 10 |
| 2-Methylphenol | 10 | U | 1.3 | 10 |
| 2-Nitroaniline | 10 | U | 0.65 | 10 |
| 2-Nitrophenol | 10 | U | 0.59 | 10 |
| 3,3'-Dichlorobenzidine | 10 | U | 1.0 | 10 |
| 3-Nitroaniline | 10 | U | 0.82 | 10 |
| 4,6-Dinitro-2-methylphenol | 20 | U | 2.0 | 20 |
| 4-Bromophenyl phenyl ether | 10 | U | 1.0 | 10 |
| 4-Chloro-3-methylphenol | 10 | U | 0.76 | 10 |
| 4-Chloroaniline | 10 | U | 0.73 | 10 |
| 4-Chlorophenyl phenyl ether | 10 | U | 0.96 | 10 |
| 4-Methylphenol | 10 | U | 0.87 | 10 |
| 4-Nitroaniline | 10 | U | 0.48 | 10 |
| 4-Nitrophenol | 20 | U | 4.7 | 20 |
| Acenaphthene | 10 | U | 0.88 | 10 |
| Acenaphthylene | 10 | U | 0.65 | 10 |
| Acetophenone | 10 | U | 1.0 | 10 |
| Anthracene | 10 | U | 0.57 | 10 |
| Atrazine | 2.0 | U | 0.77 | 2.0 |
| Benzaldehyde | 10 | U | 0.86 | 10 |
| Benzo[a]anthracene | 1.0 | U | 0.55 | 1.0 |
| Benzo[a]pyrene | 1.0 | U | 0.16 | 1.0 |
| Benzo[b]fluoranthene | 1.0 | U | 0.44 | 1.0 |
| Benzo[g,h,i]perylene | 10 | U | 0.75 | 10 |
| Benzo[k]fluoranthene | 1.0 | U | 0.18 | 1.0 |
| Bis(2-chloroethoxy)methane | 10 | U | 0.69 | 10 |
| Bis(2-chloroethyl)ether | 1.0 | U | 0.12 | 1.0 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 0.72 | 2.0 |
| Butyl benzyl phthalate | 10 | U | 0.60 | 10 |
| Caprolactam | 10 | U | 1.1 | 10 |
| Carbazole | 10 | U | 0.85 | 10 |
| Chrysene | 2.0 | U | 0.67 | 2.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-426877

**Method: 8270D
Preparation: 3510C**

Lab Sample ID: MB 460-426877/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/30/2017 0442
 Prep Date: 03/29/2017 0902
 Leach Date: N/A

Analysis Batch: 460-427021
 Prep Batch: 460-426877
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CBNAMS4
 Lab File ID: U333919.D
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 2 mL
 Injection Volume: 5 uL

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|-------|-----|
| Dibenz(a,h)anthracene | 1.0 | U | 0.090 | 1.0 |
| Dibenzofuran | 10 | U | 0.85 | 10 |
| Diethyl phthalate | 10 | U | 1.0 | 10 |
| Dimethyl phthalate | 10 | U | 0.98 | 10 |
| Di-n-butyl phthalate | 10 | U | 0.82 | 10 |
| Di-n-octyl phthalate | 10 | U | 0.69 | 10 |
| Fluoranthene | 10 | U | 0.72 | 10 |
| Fluorene | 10 | U | 0.80 | 10 |
| Hexachlorobenzene | 1.0 | U | 0.47 | 1.0 |
| Hexachlorobutadiene | 1.0 | U | 0.76 | 1.0 |
| Hexachlorocyclopentadiene | 10 | U | 0.61 | 10 |
| Hexachloroethane | 1.0 | U | 0.090 | 1.0 |
| Indeno[1,2,3-cd]pyrene | 1.0 | U | 0.21 | 1.0 |
| Isophorone | 10 | U | 0.67 | 10 |
| Naphthalene | 10 | U | 0.80 | 10 |
| Nitrobenzene | 1.0 | U | 0.49 | 1.0 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 0.83 | 1.0 |
| N-Nitrosodiphenylamine | 10 | U | 0.74 | 10 |
| Pentachlorophenol | 20 | U | 2.2 | 20 |
| Phenanthrene | 10 | U | 0.65 | 10 |
| Phenol | 10 | U | 0.41 | 10 |
| Pyrene | 10 | U | 0.83 | 10 |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 82 | 26 - 139 |
| 2-Fluorobiphenyl | 87 | 45 - 107 |
| 2-Fluorophenol (Surr) | 42 | 25 - 58 |
| Nitrobenzene-d5 (Surr) | 93 | 51 - 108 |
| Phenol-d5 (Surr) | 26 | 14 - 39 |
| Terphenyl-d14 (Surr) | 83 | 40 - 148 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-426877

Method: 8270D

Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-426877/2-A | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-426877 | Lab File ID: U333920.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 0503 | Units: ug/L | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-426877/3-A | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-426877 | Lab File ID: U333921.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 0524 | Units: ug/L | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------------|--------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 1,1'-Biphenyl | 95 | 84 | 54 - 108 | 12 | 30 | | |
| 1,2,4,5-Tetrachlorobenzene | 95 | 91 | 46 - 105 | 4 | 30 | | |
| 2,2'-oxybis[1-chloropropane] | 83 | 86 | 50 - 108 | 3 | 30 | | |
| 2,3,4,6-Tetrachlorophenol | 93 | 92 | 57 - 122 | 1 | 30 | | |
| 2,4,5-Trichlorophenol | 93 | 90 | 59 - 117 | 3 | 30 | | |
| 2,4,6-Trichlorophenol | 100 | 89 | 62 - 120 | 12 | 30 | | |
| 2,4-Dichlorophenol | 85 | 85 | 62 - 102 | 1 | 30 | | |
| 2,4-Dimethylphenol | 75 | 75 | 61 - 95 | 0 | 30 | | |
| 2,4-Dinitrophenol | 73 | 81 | 45 - 125 | 10 | 30 | | |
| 2,4-Dinitrotoluene | 97 | 90 | 70 - 123 | 8 | 30 | | |
| 2,6-Dinitrotoluene | 95 | 98 | 68 - 121 | 3 | 30 | | |
| 2-Chloronaphthalene | 90 | 92 | 54 - 105 | 2 | 30 | | |
| 2-Chlorophenol | 75 | 72 | 54 - 92 | 4 | 30 | | |
| 2-Methylnaphthalene | 84 | 82 | 47 - 104 | 2 | 30 | | |
| 2-Methylphenol | 55 | 54 | 43 - 80 | 0 | 30 | | |
| 2-Nitroaniline | 93 | 89 | 46 - 124 | 5 | 30 | | |
| 2-Nitrophenol | 84 | 87 | 58 - 109 | 3 | 30 | | |
| 3,3'-Dichlorobenzidine | 94 | 98 | 68 - 123 | 4 | 30 | | |
| 3-Nitroaniline | 75 | 74 | 60 - 117 | 1 | 30 | | |
| 4,6-Dinitro-2-methylphenol | 86 | 98 | 59 - 132 | 13 | 30 | | |
| 4-Bromophenyl phenyl ether | 94 | 90 | 57 - 126 | 4 | 30 | | |
| 4-Chloro-3-methylphenol | 72 | 74 | 58 - 98 | 3 | 30 | | |
| 4-Chloroaniline | 71 | 73 | 51 - 108 | 4 | 30 | | |
| 4-Chlorophenyl phenyl ether | 94 | 99 | 60 - 114 | 5 | 30 | | |
| 4-Methylphenol | 51 | 41 | 34 - 78 | 20 | 30 | | |
| 4-Nitroaniline | 80 | 80 | 48 - 135 | 1 | 30 | | |
| 4-Nitrophenol | 25 | 25 | 11 - 47 | 2 | 30 | | |
| Acenaphthene | 81 | 85 | 58 - 107 | 5 | 30 | | |
| Acenaphthylene | 97 | 87 | 61 - 106 | 11 | 30 | | |
| Acetophenone | 92 | 93 | 54 - 115 | 1 | 30 | | |
| Anthracene | 93 | 102 | 70 - 118 | 9 | 30 | | |
| Benzo[a]anthracene | 99 | 98 | 73 - 119 | 2 | 30 | | |
| Benzo[a]pyrene | 101 | 102 | 76 - 125 | 1 | 30 | | |
| Benzo[b]fluoranthene | 99 | 108 | 78 - 123 | 9 | 30 | | |
| Benzo[g,h,i]perylene | 116 | 119 | 63 - 133 | 3 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-426877 **Method: 8270D**
Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-426877/2-A | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-426877 | Lab File ID: U333920.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 0503 | Units: ug/L | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-426877/3-A | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-426877 | Lab File ID: U333921.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 0524 | Units: ug/L | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|-----------------------------|--------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Benzo[k]fluoranthene | 97 | 93 | 71 - 126 | 4 | 30 | | |
| Bis(2-chloroethoxy)methane | 90 | 89 | 67 - 104 | 0 | 30 | | |
| Bis(2-chloroethyl)ether | 88 | 88 | 63 - 106 | 0 | 30 | | |
| Bis(2-ethylhexyl) phthalate | 101 | 99 | 63 - 135 | 2 | 30 | | |
| Butyl benzyl phthalate | 90 | 92 | 66 - 129 | 2 | 30 | | |
| Carbazole | 92 | 91 | 68 - 121 | 1 | 30 | | |
| Chrysene | 104 | 105 | 73 - 121 | 1 | 30 | | |
| Dibenz(a,h)anthracene | 112 | 115 | 59 - 136 | 2 | 30 | | |
| Dibenzofuran | 89 | 88 | 67 - 108 | 1 | 30 | | |
| Diethyl phthalate | 93 | 96 | 61 - 129 | 3 | 30 | | |
| Dimethyl phthalate | 88 | 92 | 65 - 121 | 5 | 30 | | |
| Di-n-butyl phthalate | 96 | 99 | 64 - 130 | 4 | 30 | | |
| Di-n-octyl phthalate | 106 | 108 | 64 - 131 | 2 | 30 | | |
| Fluoranthene | 96 | 99 | 66 - 123 | 3 | 30 | | |
| Fluorene | 95 | 86 | 67 - 112 | 9 | 30 | | |
| Hexachlorobenzene | 93 | 87 | 63 - 125 | 7 | 30 | | |
| Hexachlorobutadiene | 73 | 76 | 34 - 99 | 4 | 30 | | |
| Hexachlorocyclopentadiene | 97 | 88 | 18 - 99 | 9 | 30 | | |
| Hexachloroethane | 77 | 76 | 39 - 92 | 1 | 30 | | |
| Indeno[1,2,3-cd]pyrene | 128 | 133 | 57 - 142 | 4 | 30 | | |
| Isophorone | 82 | 84 | 55 - 105 | 2 | 30 | | |
| Naphthalene | 85 | 83 | 51 - 98 | 3 | 30 | | |
| Nitrobenzene | 83 | 92 | 56 - 106 | 9 | 30 | | |
| N-Nitrosodi-n-propylamine | 87 | 89 | 48 - 118 | 2 | 30 | | |
| N-Nitrosodiphenylamine | 93 | 88 | 69 - 118 | 5 | 30 | | |
| Pentachlorophenol | 83 | 87 | 54 - 120 | 5 | 30 | | |
| Phenanthrene | 95 | 94 | 70 - 117 | 0 | 30 | | |
| Phenol | 24 | 24 | 16 - 43 | 0 | 30 | | |
| Pyrene | 83 | 83 | 63 - 129 | 0 | 30 | | |

| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits |
|-----------------------------|-----------|------------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 84 | 84 | 26 - 139 |
| 2-Fluorobiphenyl | 86 | 88 | 45 - 107 |
| 2-Fluorophenol (Surr) | 35 | 33 | 25 - 58 |
| Nitrobenzene-d5 (Surr) | 88 | 92 | 51 - 108 |
| Phenol-d5 (Surr) | 22 | 21 | 14 - 39 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits |
|----------------------|-----------|------------|-------------------|
| Terphenyl-d14 (Surr) | 77 | 78 | 40 - 148 |

Lab Control Sample/ Method: 8270D
Lab Control Sample Duplicate Recovery Report - Batch: 460-426877 Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-426877/4-A | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-426877 | Lab File ID: U333922.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 0546 | Units: ug/L | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-426877/5-A | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-426877 | Lab File ID: U333923.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 0607 | Units: ug/L | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| Analyte | <u>% Rec.</u> | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|--------------|---------------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Atrazine | 93 | 104 | 38 - 146 | 11 | 30 | | |
| Benzaldehyde | 86 | 87 | 46 - 111 | 1 | 30 | | |
| Caprolactam | 11 | 12 | 10 - 43 | 10 | 30 | | |

| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits |
|-----------------------------|-----------|------------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 77 | 76 | 26 - 139 |
| 2-Fluorobiphenyl | 84 | 82 | 45 - 107 |
| 2-Fluorophenol (Surr) | 33 | 34 | 25 - 58 |
| Nitrobenzene-d5 (Surr) | 89 | 87 | 51 - 108 |
| Phenol-d5 (Surr) | 19 | 19 | 14 - 39 |
| Terphenyl-d14 (Surr) | 77 | 87 | 40 - 148 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-426922

**Method: 8270D
Preparation: 3546**

Lab Sample ID: MB 460-426922/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/30/2017 0846
 Prep Date: 03/29/2017 1217
 Leach Date: N/A

Analysis Batch: 460-427026
 Prep Batch: 460-426922
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CBNAMS5
 Lab File ID: x24112.D
 Initial Weight/Volume: 15.0000 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

| Analyte | Result | Qual | MDL | RL |
|------------------------------|--------|------|-----|-----|
| 1,1'-Biphenyl | 330 | U | 28 | 330 |
| 1,2,4,5-Tetrachlorobenzene | 330 | U | 25 | 330 |
| 2,2'-oxybis[1-chloropropane] | 330 | U | 14 | 330 |
| 2,3,4,6-Tetrachlorophenol | 330 | U | 31 | 330 |
| 2,4,5-Trichlorophenol | 330 | U | 33 | 330 |
| 2,4,6-Trichlorophenol | 130 | U | 9.4 | 130 |
| 2,4-Dichlorophenol | 130 | U | 7.8 | 130 |
| 2,4-Dimethylphenol | 330 | U | 73 | 330 |
| 2,4-Dinitrophenol | 270 | U | 250 | 270 |
| 2,4-Dinitrotoluene | 67 | U | 13 | 67 |
| 2,6-Dinitrotoluene | 67 | U | 18 | 67 |
| 2-Chloronaphthalene | 330 | U | 7.5 | 330 |
| 2-Chlorophenol | 330 | U | 8.4 | 330 |
| 2-Methylnaphthalene | 330 | U | 7.3 | 330 |
| 2-Methylphenol | 330 | U | 14 | 330 |
| 2-Nitroaniline | 330 | U | 11 | 330 |
| 2-Nitrophenol | 330 | U | 11 | 330 |
| 3,3'-Dichlorobenzidine | 130 | U | 37 | 130 |
| 3-Nitroaniline | 330 | U | 9.8 | 330 |
| 4,6-Dinitro-2-methylphenol | 270 | U | 88 | 270 |
| 4-Bromophenyl phenyl ether | 330 | U | 10 | 330 |
| 4-Chloro-3-methylphenol | 330 | U | 14 | 330 |
| 4-Chloroaniline | 330 | U | 8.5 | 330 |
| 4-Chlorophenyl phenyl ether | 330 | U | 9.9 | 330 |
| 4-Methylphenol | 330 | U | 9.0 | 330 |
| 4-Nitroaniline | 330 | U | 13 | 330 |
| 4-Nitrophenol | 670 | U | 160 | 670 |
| Acenaphthene | 330 | U | 8.0 | 330 |
| Acenaphthylene | 330 | U | 8.5 | 330 |
| Acetophenone | 330 | U | 7.2 | 330 |
| Anthracene | 330 | U | 31 | 330 |
| Atrazine | 130 | U | 15 | 130 |
| Benzaldehyde | 330 | U | 25 | 330 |
| Benzo[a]anthracene | 33 | U | 28 | 33 |
| Benzo[a]pyrene | 33 | U | 10 | 33 |
| Benzo[b]fluoranthene | 33 | U | 13 | 33 |
| Benzo[g,h,i]perylene | 330 | U | 19 | 330 |
| Benzo[k]fluoranthene | 33 | U | 14 | 33 |
| Bis(2-chloroethoxy)methane | 330 | U | 10 | 330 |
| Bis(2-chloroethyl)ether | 33 | U | 7.8 | 33 |
| Bis(2-ethylhexyl) phthalate | 330 | U | 13 | 330 |
| Butyl benzyl phthalate | 330 | U | 10 | 330 |
| Caprolactam | 330 | U | 24 | 330 |
| Carbazole | 330 | U | 8.2 | 330 |
| Chrysene | 330 | U | 9.0 | 330 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-426922

**Method: 8270D
Preparation: 3546**

| | | |
|----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: MB 460-426922/1-A | Analysis Batch: 460-427026 | Instrument ID: CBNAMS5 |
| Client Matrix: Solid | Prep Batch: 460-426922 | Lab File ID: x24112.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 03/30/2017 0846 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1217 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|-----|-----|
| Dibenz(a,h)anthracene | 33 | U | 17 | 33 |
| Dibenzofuran | 330 | U | 10 | 330 |
| Diethyl phthalate | 330 | U | 9.4 | 330 |
| Dimethyl phthalate | 330 | U | 9.6 | 330 |
| Di-n-butyl phthalate | 330 | U | 9.9 | 330 |
| Di-n-octyl phthalate | 330 | U | 17 | 330 |
| Fluoranthene | 330 | U | 9.8 | 330 |
| Fluorene | 330 | U | 7.2 | 330 |
| Hexachlorobenzene | 33 | U | 13 | 33 |
| Hexachlorobutadiene | 67 | U | 9.3 | 67 |
| Hexachlorocyclopentadiene | 330 | U | 21 | 330 |
| Hexachloroethane | 33 | U | 12 | 33 |
| Indeno[1,2,3-cd]pyrene | 33 | U | 22 | 33 |
| Isophorone | 130 | U | 7.1 | 130 |
| Naphthalene | 330 | U | 8.4 | 330 |
| Nitrobenzene | 33 | U | 10 | 33 |
| N-Nitrosodi-n-propylamine | 33 | U | 11 | 33 |
| N-Nitrosodiphenylamine | 330 | U | 30 | 330 |
| Pentachlorophenol | 270 | U | 40 | 270 |
| Phenanthrene | 330 | U | 8.8 | 330 |
| Phenol | 330 | U | 11 | 330 |
| Pyrene | 330 | U | 15 | 330 |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 58 | 10 - 103 |
| 2-Fluorobiphenyl | 76 | 38 - 95 |
| 2-Fluorophenol (Surr) | 26 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 77 | 37 - 94 |
| Phenol-d5 (Surr) | 36 | 32 - 91 |
| Terphenyl-d14 (Surr) | 66 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample - Batch: 460-426922

Method: 8270D
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-426922/3-A | Analysis Batch: 460-427026 | Instrument ID: CBNAMS5 |
| Client Matrix: Solid | Prep Batch: 460-426922 | Lab File ID: x24099.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 03/30/2017 0405 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1217 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|--------------|--------------|--------|--------|----------|------|
| Atrazine | 6670 | 6650 | 100 | 62 - 137 | |
| Benzaldehyde | 6670 | 4460 | 67 | 52 - 113 | |
| Caprolactam | 6670 | 7850 | 118 | 53 - 148 | |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 103 | 10 - 103 |
| 2-Fluorobiphenyl | 90 | 38 - 95 |
| 2-Fluorophenol (Surr) | 44 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 101 * | 37 - 94 |
| Phenol-d5 (Surr) | 67 | 32 - 91 |
| Terphenyl-d14 (Surr) | 98 | 24 - 109 |

Lab Control Sample - Batch: 460-426922

Method: 8270D
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-426922/2-A | Analysis Batch: 460-427162 | Instrument ID: CBNAMS12 |
| Client Matrix: Solid | Prep Batch: 460-426922 | Lab File ID: L138567.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 03/30/2017 1726 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1217 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------------|--------------|--------|--------|----------|------|
| 1,1'-Biphenyl | 3330 | 2840 | 85 | 64 - 108 | |
| 1,2,4,5-Tetrachlorobenzene | 3330 | 3090 | 93 | 57 - 112 | |
| 2,2'-oxybis[1-chloropropane] | 3330 | 2010 | 60 | 39 - 122 | |
| 2,3,4,6-Tetrachlorophenol | 3330 | 2630 | 79 | 60 - 114 | |
| 2,4,5-Trichlorophenol | 3330 | 2690 | 81 | 60 - 106 | |
| 2,4,6-Trichlorophenol | 3330 | 2800 | 84 | 62 - 110 | |
| 2,4-Dichlorophenol | 3330 | 2490 | 75 | 61 - 103 | |
| 2,4-Dimethylphenol | 3330 | 2490 | 75 | 63 - 101 | |
| 2,4-Dinitrophenol | 6670 | 5590 | 84 | 56 - 122 | |
| 2,4-Dinitrotoluene | 3330 | 2670 | 80 | 66 - 122 | |
| 2,6-Dinitrotoluene | 3330 | 2610 | 78 | 70 - 114 | |
| 2-Chloronaphthalene | 3330 | 2660 | 80 | 63 - 107 | |
| 2-Chlorophenol | 3330 | 2280 | 68 | 62 - 97 | |
| 2-Methylnaphthalene | 3330 | 2570 | 77 | 65 - 104 | |
| 2-Methylphenol | 3330 | 2420 | 73 | 61 - 103 | |
| 2-Nitroaniline | 3330 | 2460 | 74 | 57 - 114 | |
| 2-Nitrophenol | 3330 | 2620 | 78 | 65 - 104 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample - Batch: 460-426922

**Method: 8270D
Preparation: 3546**

| | | | | | |
|----------------|--------------------|-----------------|------------|------------------------|-----------|
| Lab Sample ID: | LCS 460-426922/2-A | Analysis Batch: | 460-427162 | Instrument ID: | CBNAMS12 |
| Client Matrix: | Solid | Prep Batch: | 460-426922 | Lab File ID: | L138567.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 15.0000 g |
| Analysis Date: | 03/30/2017 1726 | Units: | ug/Kg | Final Weight/Volume: | 1 mL |
| Prep Date: | 03/29/2017 1217 | | | Injection Volume: | 1 uL |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------------------------|--------------|--------|--------|----------|------|
| 3,3'-Dichlorobenzidine | 3330 | 895 | 27 | 18 - 88 | |
| 3-Nitroaniline | 3330 | 1010 | 30 | 30 - 94 | |
| 4,6-Dinitro-2-methylphenol | 6670 | 5170 | 78 | 67 - 120 | |
| 4-Bromophenyl phenyl ether | 3330 | 2720 | 81 | 59 - 122 | |
| 4-Chloro-3-methylphenol | 3330 | 2720 | 82 | 62 - 111 | |
| 4-Chloroaniline | 3330 | 539 | 16 | 18 - 94 | * |
| 4-Chlorophenyl phenyl ether | 3330 | 2820 | 85 | 66 - 110 | |
| 4-Methylphenol | 3330 | 2120 | 64 | 61 - 105 | |
| 4-Nitroaniline | 3330 | 1810 | 54 | 49 - 118 | |
| 4-Nitrophenol | 6670 | 5850 | 88 | 43 - 141 | |
| Acenaphthene | 3330 | 2610 | 78 | 62 - 108 | |
| Acenaphthylene | 3330 | 2800 | 84 | 67 - 107 | |
| Acetophenone | 3330 | 2600 | 78 | 60 - 109 | |
| Anthracene | 3330 | 2570 | 77 | 69 - 111 | |
| Benzo[a]anthracene | 3330 | 2610 | 78 | 68 - 110 | |
| Benzo[a]pyrene | 3330 | 2680 | 81 | 72 - 115 | |
| Benzo[b]fluoranthene | 3330 | 2560 | 77 | 69 - 119 | |
| Benzo[g,h,i]perylene | 3330 | 2780 | 84 | 54 - 128 | |
| Benzo[k]fluoranthene | 3330 | 2670 | 80 | 70 - 115 | |
| Bis(2-chloroethoxy)methane | 3330 | 2720 | 81 | 65 - 106 | |
| Bis(2-chloroethyl)ether | 3330 | 2540 | 76 | 64 - 105 | |
| Bis(2-ethylhexyl) phthalate | 3330 | 2850 | 86 | 63 - 125 | |
| Butyl benzyl phthalate | 3330 | 2860 | 86 | 65 - 125 | |
| Carbazole | 3330 | 2440 | 73 | 66 - 115 | |
| Chrysene | 3330 | 2720 | 82 | 70 - 111 | |
| Dibenz(a,h)anthracene | 3330 | 2870 | 86 | 60 - 130 | |
| Dibenzofuran | 3330 | 2710 | 81 | 67 - 107 | |
| Diethyl phthalate | 3330 | 2620 | 79 | 66 - 117 | |
| Dimethyl phthalate | 3330 | 2620 | 79 | 68 - 112 | |
| Di-n-butyl phthalate | 3330 | 2530 | 76 | 67 - 119 | |
| Di-n-octyl phthalate | 3330 | 2860 | 86 | 57 - 138 | |
| Fluoranthene | 3330 | 2560 | 77 | 64 - 114 | |
| Fluorene | 3330 | 2650 | 80 | 66 - 110 | |
| Hexachlorobenzene | 3330 | 2740 | 82 | 57 - 128 | |
| Hexachlorobutadiene | 3330 | 2920 | 87 | 60 - 108 | |
| Hexachlorocyclopentadiene | 3330 | 3440 | 103 | 50 - 129 | |
| Hexachloroethane | 3330 | 2500 | 75 | 63 - 99 | |
| Indeno[1,2,3-cd]pyrene | 3330 | 2910 | 87 | 53 - 137 | |
| Isophorone | 3330 | 3110 | 93 | 68 - 111 | |
| Naphthalene | 3330 | 2540 | 76 | 65 - 102 | |
| Nitrobenzene | 3330 | 3140 | 94 | 66 - 108 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample - Batch: 460-426922

Method: 8270D
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-426922/2-A | Analysis Batch: 460-427162 | Instrument ID: CBNAMS12 |
| Client Matrix: Solid | Prep Batch: 460-426922 | Lab File ID: L138567.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 03/30/2017 1726 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1217 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------------------------|--------------|--------|--------|----------|------|
| N-Nitrosodi-n-propylamine | 3330 | 3000 | 90 | 63 - 117 | |
| N-Nitrosodiphenylamine | 3330 | 2640 | 79 | 65 - 114 | |
| Pentachlorophenol | 6670 | 4320 | 65 | 56 - 116 | |
| Phenanthrene | 3330 | 2540 | 76 | 68 - 111 | |
| Phenol | 3330 | 2640 | 79 | 58 - 103 | |
| Pyrene | 3330 | 2820 | 85 | 64 - 121 | |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 77 | 10 - 103 |
| 2-Fluorobiphenyl | 80 | 38 - 95 |
| 2-Fluorophenol (Surr) | 73 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 89 | 37 - 94 |
| Phenol-d5 (Surr) | 74 | 32 - 91 |
| Terphenyl-d14 (Surr) | 80 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-426922**

**Method: 8270D
Preparation: 3546**

MS Lab Sample ID: 460-130404-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/30/2017 0510
Prep Date: 03/29/2017 1217
Leach Date: N/A

Analysis Batch: 460-427026
Prep Batch: 460-426922
Leach Batch: N/A

Instrument ID: CBNAMS5
Lab File ID: x24102.D
Initial Weight/Volume: 15.0232 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

MSD Lab Sample ID: 460-130404-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/30/2017 0531
Prep Date: 03/29/2017 1217
Leach Date: N/A

Analysis Batch: 460-427026
Prep Batch: 460-426922
Leach Batch: N/A

Instrument ID: CBNAMS5
Lab File ID: x24103.D
Initial Weight/Volume: 15.0258 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| 1,1'-Biphenyl | 83 | 80 | 64 - 108 | 3 | 30 | | |
| 1,2,4,5-Tetrachlorobenzene | 79 | 78 | 57 - 112 | 1 | 30 | | |
| 2,2'-oxybis[1-chloropropane] | 88 | 83 | 39 - 122 | 5 | 30 | | |
| 2,3,4,6-Tetrachlorophenol | 22 | 24 | 60 - 114 | 9 | 30 | * | * |
| 2,4,5-Trichlorophenol | 46 | 47 | 60 - 106 | 1 | 30 | * | * |
| 2,4,6-Trichlorophenol | 50 | 49 | 62 - 110 | 1 | 30 | * | * |
| 2,4-Dichlorophenol | 62 | 61 | 61 - 103 | 1 | 30 | | |
| 2,4-Dimethylphenol | 65 | 63 | 63 - 101 | 4 | 30 | | |
| 2,4-Dinitrophenol | 0 | 0 | 56 - 122 | NC | 30 | U * | U * |
| 2,4-Dinitrotoluene | 84 | 81 | 66 - 122 | 4 | 30 | | |
| 2,6-Dinitrotoluene | 84 | 82 | 70 - 114 | 2 | 30 | | |
| 2-Chloronaphthalene | 80 | 79 | 63 - 107 | 2 | 30 | | |
| 2-Chlorophenol | 42 | 60 | 62 - 97 | 35 | 30 | * | * |
| 2-Methylnaphthalene | 84 | 83 | 65 - 104 | 2 | 30 | | |
| 2-Methylphenol | 75 | 68 | 61 - 103 | 9 | 30 | | |
| 2-Nitroaniline | 85 | 82 | 57 - 114 | 3 | 30 | | |
| 2-Nitrophenol | 42 | 44 | 65 - 104 | 4 | 30 | * | * |
| 3,3'-Dichlorobenzidine | 62 | 59 | 18 - 88 | 5 | 30 | | |
| 3-Nitroaniline | 72 | 70 | 30 - 94 | 4 | 30 | | |
| 4,6-Dinitro-2-methylphenol | 4 | 5 | 67 - 120 | 9 | 30 | * | * |
| 4-Bromophenyl phenyl ether | 83 | 79 | 59 - 122 | 6 | 30 | | |
| 4-Chloro-3-methylphenol | 75 | 75 | 62 - 111 | 0 | 30 | | |
| 4-Chloroaniline | 57 | 54 | 18 - 94 | 5 | 30 | | |
| 4-Chlorophenyl phenyl ether | 84 | 81 | 66 - 110 | 4 | 30 | | |
| 4-Methylphenol | 77 | 72 | 61 - 105 | 8 | 30 | | |
| 4-Nitroaniline | 82 | 76 | 49 - 118 | 8 | 30 | | |
| 4-Nitrophenol | 66 | 62 | 43 - 141 | 7 | 30 | | |
| Acenaphthene | 86 | 84 | 62 - 108 | 2 | 30 | | |
| Acenaphthylene | 85 | 83 | 67 - 107 | 2 | 30 | | |
| Acetophenone | 87 | 84 | 60 - 109 | 4 | 30 | | |
| Anthracene | 85 | 82 | 69 - 111 | 4 | 30 | | |
| Atrazine | 88 | 83 | 62 - 137 | 6 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-426922**

**Method: 8270D
Preparation: 3546**

MS Lab Sample ID: 460-130404-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/30/2017 0510
Prep Date: 03/29/2017 1217
Leach Date: N/A

Analysis Batch: 460-427026
Prep Batch: 460-426922
Leach Batch: N/A

Instrument ID: CBNAMS5
Lab File ID: x24102.D
Initial Weight/Volume: 15.0232 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

MSD Lab Sample ID: 460-130404-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/30/2017 0531
Prep Date: 03/29/2017 1217
Leach Date: N/A

Analysis Batch: 460-427026
Prep Batch: 460-426922
Leach Batch: N/A

Instrument ID: CBNAMS5
Lab File ID: x24103.D
Initial Weight/Volume: 15.0258 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|-----------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Benzaldehyde | 36 | 46 | 52 - 113 | 24 | 30 | * | * |
| Benzo[a]anthracene | 85 | 78 | 68 - 110 | 8 | 30 | | |
| Benzo[a]pyrene | 84 | 78 | 72 - 115 | 7 | 30 | | |
| Benzo[b]fluoranthene | 82 | 82 | 69 - 119 | 0 | 30 | | |
| Benzo[g,h,i]perylene | 88 | 81 | 54 - 128 | 8 | 30 | | |
| Benzo[k]fluoranthene | 84 | 76 | 70 - 115 | 11 | 30 | | |
| Bis(2-chloroethoxy)methane | 83 | 83 | 65 - 106 | 0 | 30 | | |
| Bis(2-chloroethyl)ether | 45 | 65 | 64 - 105 | 37 | 30 | * | * |
| Bis(2-ethylhexyl) phthalate | 85 | 83 | 63 - 125 | 3 | 30 | | |
| Butyl benzyl phthalate | 87 | 83 | 65 - 125 | 4 | 30 | | |
| Caprolactam | 48 | 47 | 53 - 148 | 3 | 30 | * | * |
| Carbazole | 82 | 80 | 66 - 115 | 3 | 30 | | |
| Chrysene | 88 | 82 | 70 - 111 | 7 | 30 | | |
| Dibenz(a,h)anthracene | 92 | 87 | 60 - 130 | 6 | 30 | | |
| Dibenzofuran | 84 | 80 | 67 - 107 | 4 | 30 | | |
| Diethyl phthalate | 90 | 87 | 66 - 117 | 4 | 30 | | |
| Dimethyl phthalate | 88 | 84 | 68 - 112 | 5 | 30 | | |
| Di-n-butyl phthalate | 88 | 85 | 67 - 119 | 4 | 30 | | |
| Di-n-octyl phthalate | 81 | 79 | 57 - 138 | 2 | 30 | | |
| Fluoranthene | 92 | 86 | 64 - 114 | 7 | 30 | | |
| Fluorene | 85 | 83 | 66 - 110 | 2 | 30 | | |
| Hexachlorobenzene | 85 | 84 | 57 - 128 | 1 | 30 | | |
| Hexachlorobutadiene | 81 | 82 | 60 - 108 | 0 | 30 | | |
| Hexachlorocyclopentadiene | 79 | 77 | 50 - 129 | 3 | 30 | | |
| Hexachloroethane | 87 | 81 | 63 - 99 | 8 | 30 | | |
| Indeno[1,2,3-cd]pyrene | 90 | 87 | 53 - 137 | 3 | 30 | | |
| Isophorone | 88 | 87 | 68 - 111 | 1 | 30 | | |
| Naphthalene | 85 | 86 | 65 - 102 | 0 | 30 | | |
| Nitrobenzene | 78 | 77 | 66 - 108 | 1 | 30 | | |
| N-Nitrosodi-n-propylamine | 94 | 88 | 63 - 117 | 6 | 30 | | |
| N-Nitrosodiphenylamine | 81 | 78 | 65 - 114 | 3 | 30 | | |
| Pentachlorophenol | 8 | 9 | 56 - 116 | 6 | 30 | * | * |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-426922**

**Method: 8270D
Preparation: 3546**

MS Lab Sample ID: 460-130404-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/30/2017 0510
Prep Date: 03/29/2017 1217
Leach Date: N/A

Analysis Batch: 460-427026
Prep Batch: 460-426922
Leach Batch: N/A

Instrument ID: CBNAMS5
Lab File ID: x24102.D
Initial Weight/Volume: 15.0232 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

MSD Lab Sample ID: 460-130404-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/30/2017 0531
Prep Date: 03/29/2017 1217
Leach Date: N/A

Analysis Batch: 460-427026
Prep Batch: 460-426922
Leach Batch: N/A

Instrument ID: CBNAMS5
Lab File ID: x24103.D
Initial Weight/Volume: 15.0258 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|--------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Phenanthrene | 90 | 84 | 68 - 111 | 7 | 30 | | |
| Phenol | 39 | 56 | 58 - 103 | 37 | 30 | * | * |
| Pyrene | 89 | 77 | 64 - 121 | 14 | 30 | | |

| Surrogate | MS % Rec | MSD % Rec | Acceptance Limits |
|-----------------------------|----------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 45 | 45 | 10 - 103 |
| 2-Fluorobiphenyl | 77 | 75 | 38 - 95 |
| 2-Fluorophenol (Surr) | 34 | 30 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 79 | 79 | 37 - 94 |
| Phenol-d5 (Surr) | 38 | 54 | 32 - 91 |
| Terphenyl-d14 (Surr) | 75 | 70 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-426923

**Method: 8270D
Preparation: 3546**

Lab Sample ID: MB 460-426923/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/30/2017 0711
 Prep Date: 03/29/2017 1222
 Leach Date: N/A

Analysis Batch: 460-427031
 Prep Batch: 460-426923
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CBNAMS12
 Lab File ID: L138552.D
 Initial Weight/Volume: 15.0000 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

| Analyte | Result | Qual | MDL | RL |
|------------------------------|--------|------|-----|-----|
| 1,1'-Biphenyl | 330 | U | 28 | 330 |
| 1,2,4,5-Tetrachlorobenzene | 330 | U | 25 | 330 |
| 2,2'-oxybis[1-chloropropane] | 330 | U | 14 | 330 |
| 2,3,4,6-Tetrachlorophenol | 330 | U | 31 | 330 |
| 2,4,5-Trichlorophenol | 330 | U | 33 | 330 |
| 2,4,6-Trichlorophenol | 130 | U | 9.4 | 130 |
| 2,4-Dichlorophenol | 130 | U | 7.8 | 130 |
| 2,4-Dimethylphenol | 330 | U | 73 | 330 |
| 2,4-Dinitrophenol | 270 | U | 250 | 270 |
| 2,4-Dinitrotoluene | 67 | U | 13 | 67 |
| 2,6-Dinitrotoluene | 67 | U | 18 | 67 |
| 2-Chloronaphthalene | 330 | U | 7.5 | 330 |
| 2-Chlorophenol | 330 | U | 8.4 | 330 |
| 2-Methylnaphthalene | 330 | U | 7.3 | 330 |
| 2-Methylphenol | 330 | U | 14 | 330 |
| 2-Nitroaniline | 330 | U | 11 | 330 |
| 2-Nitrophenol | 330 | U | 11 | 330 |
| 3,3'-Dichlorobenzidine | 130 | U | 37 | 130 |
| 3-Nitroaniline | 330 | U | 9.8 | 330 |
| 4,6-Dinitro-2-methylphenol | 270 | U | 88 | 270 |
| 4-Bromophenyl phenyl ether | 330 | U | 10 | 330 |
| 4-Chloro-3-methylphenol | 330 | U | 14 | 330 |
| 4-Chloroaniline | 330 | U | 8.5 | 330 |
| 4-Chlorophenyl phenyl ether | 330 | U | 9.9 | 330 |
| 4-Methylphenol | 330 | U | 9.0 | 330 |
| 4-Nitroaniline | 330 | U | 13 | 330 |
| 4-Nitrophenol | 670 | U | 160 | 670 |
| Acenaphthene | 330 | U | 8.0 | 330 |
| Acenaphthylene | 330 | U | 8.5 | 330 |
| Acetophenone | 330 | U | 7.2 | 330 |
| Anthracene | 330 | U | 31 | 330 |
| Atrazine | 130 | U | 15 | 130 |
| Benzaldehyde | 330 | U | 25 | 330 |
| Benzo[a]anthracene | 33 | U | 28 | 33 |
| Benzo[a]pyrene | 33 | U | 10 | 33 |
| Benzo[b]fluoranthene | 33 | U | 13 | 33 |
| Benzo[g,h,i]perylene | 330 | U | 19 | 330 |
| Benzo[k]fluoranthene | 33 | U | 14 | 33 |
| Bis(2-chloroethoxy)methane | 330 | U | 10 | 330 |
| Bis(2-chloroethyl)ether | 33 | U | 7.8 | 33 |
| Bis(2-ethylhexyl) phthalate | 330 | U | 13 | 330 |
| Butyl benzyl phthalate | 330 | U | 10 | 330 |
| Caprolactam | 330 | U | 24 | 330 |
| Carbazole | 330 | U | 8.2 | 330 |
| Chrysene | 330 | U | 9.0 | 330 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-426923

**Method: 8270D
Preparation: 3546**

Lab Sample ID: MB 460-426923/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/30/2017 0711
 Prep Date: 03/29/2017 1222
 Leach Date: N/A

Analysis Batch: 460-427031
 Prep Batch: 460-426923
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CBNAMS12
 Lab File ID: L138552.D
 Initial Weight/Volume: 15.0000 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|-----|-----|
| Dibenz(a,h)anthracene | 33 | U | 17 | 33 |
| Dibenzofuran | 330 | U | 10 | 330 |
| Diethyl phthalate | 330 | U | 9.4 | 330 |
| Dimethyl phthalate | 330 | U | 9.6 | 330 |
| Di-n-butyl phthalate | 330 | U | 9.9 | 330 |
| Di-n-octyl phthalate | 330 | U | 17 | 330 |
| Fluoranthene | 330 | U | 9.8 | 330 |
| Fluorene | 330 | U | 7.2 | 330 |
| Hexachlorobenzene | 33 | U | 13 | 33 |
| Hexachlorobutadiene | 67 | U | 9.3 | 67 |
| Hexachlorocyclopentadiene | 330 | U | 21 | 330 |
| Hexachloroethane | 33 | U | 12 | 33 |
| Indeno[1,2,3-cd]pyrene | 33 | U | 22 | 33 |
| Isophorone | 130 | U | 7.1 | 130 |
| Naphthalene | 330 | U | 8.4 | 330 |
| Nitrobenzene | 33 | U | 10 | 33 |
| N-Nitrosodi-n-propylamine | 33 | U | 11 | 33 |
| N-Nitrosodiphenylamine | 330 | U | 30 | 330 |
| Pentachlorophenol | 270 | U | 40 | 270 |
| Phenanthrene | 330 | U | 8.8 | 330 |
| Phenol | 330 | U | 11 | 330 |
| Pyrene | 330 | U | 15 | 330 |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 79 | 10 - 103 |
| 2-Fluorobiphenyl | 73 | 38 - 95 |
| 2-Fluorophenol (Surr) | 71 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 70 | 37 - 94 |
| Phenol-d5 (Surr) | 69 | 32 - 91 |
| Terphenyl-d14 (Surr) | 88 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample - Batch: 460-426923

Method: 8270D
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-426923/2-A | Analysis Batch: 460-427031 | Instrument ID: CBNAMS12 |
| Client Matrix: Solid | Prep Batch: 460-426923 | Lab File ID: L138538.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 03/30/2017 0149 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1222 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------------|--------------|--------|--------|----------|------|
| 1,1'-Biphenyl | 3330 | 3160 | 95 | 64 - 108 | |
| 1,2,4,5-Tetrachlorobenzene | 3330 | 3260 | 98 | 57 - 112 | |
| 2,2'-oxybis[1-chloropropane] | 3330 | 2270 | 68 | 39 - 122 | |
| 2,3,4,6-Tetrachlorophenol | 3330 | 3300 | 99 | 60 - 114 | |
| 2,4,5-Trichlorophenol | 3330 | 3240 | 97 | 60 - 106 | |
| 2,4,6-Trichlorophenol | 3330 | 3280 | 98 | 62 - 110 | |
| 2,4-Dichlorophenol | 3330 | 3310 | 99 | 61 - 103 | |
| 2,4-Dimethylphenol | 3330 | 3060 | 92 | 63 - 101 | |
| 2,4-Dinitrophenol | 6670 | 5870 | 88 | 56 - 122 | |
| 2,4-Dinitrotoluene | 3330 | 3610 | 108 | 66 - 122 | |
| 2,6-Dinitrotoluene | 3330 | 3300 | 99 | 70 - 114 | |
| 2-Chloronaphthalene | 3330 | 3080 | 92 | 63 - 107 | |
| 2-Chlorophenol | 3330 | 3040 | 91 | 62 - 97 | |
| 2-Methylnaphthalene | 3330 | 3270 | 98 | 65 - 104 | |
| 2-Methylphenol | 3330 | 3040 | 91 | 61 - 103 | |
| 2-Nitroaniline | 3330 | 2610 | 78 | 57 - 114 | |
| 2-Nitrophenol | 3330 | 3200 | 96 | 65 - 104 | |
| 3,3'-Dichlorobenzidine | 3330 | 1480 | 44 | 18 - 88 | |
| 3-Nitroaniline | 3330 | 1880 | 56 | 30 - 94 | |
| 4,6-Dinitro-2-methylphenol | 6670 | 5930 | 89 | 67 - 120 | |
| 4-Bromophenyl phenyl ether | 3330 | 3410 | 102 | 59 - 122 | |
| 4-Chloro-3-methylphenol | 3330 | 3230 | 97 | 62 - 111 | |
| 4-Chloroaniline | 3330 | 1740 | 52 | 18 - 94 | |
| 4-Chlorophenyl phenyl ether | 3330 | 3380 | 102 | 66 - 110 | |
| 4-Methylphenol | 3330 | 2730 | 82 | 61 - 105 | |
| 4-Nitroaniline | 3330 | 2760 | 83 | 49 - 118 | |
| 4-Nitrophenol | 6670 | 6020 | 90 | 43 - 141 | |
| Acenaphthene | 3330 | 2980 | 90 | 62 - 108 | |
| Acenaphthylene | 3330 | 3210 | 96 | 67 - 107 | |
| Acetophenone | 3330 | 2980 | 89 | 60 - 109 | |
| Anthracene | 3330 | 3230 | 97 | 69 - 111 | |
| Benzo[a]anthracene | 3330 | 3150 | 95 | 68 - 110 | |
| Benzo[a]pyrene | 3330 | 3270 | 98 | 72 - 115 | |
| Benzo[b]fluoranthene | 3330 | 3350 | 100 | 69 - 119 | |
| Benzo[g,h,i]perylene | 3330 | 3170 | 95 | 54 - 128 | |
| Benzo[k]fluoranthene | 3330 | 3320 | 100 | 70 - 115 | |
| Bis(2-chloroethoxy)methane | 3330 | 2870 | 86 | 65 - 106 | |
| Bis(2-chloroethyl)ether | 3330 | 2810 | 84 | 64 - 105 | |
| Bis(2-ethylhexyl) phthalate | 3330 | 3130 | 94 | 63 - 125 | |
| Butyl benzyl phthalate | 3330 | 3210 | 96 | 65 - 125 | |
| Carbazole | 3330 | 3100 | 93 | 66 - 115 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample - Batch: 460-426923

Method: 8270D
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-426923/2-A | Analysis Batch: 460-427031 | Instrument ID: CBNAMS12 |
| Client Matrix: Solid | Prep Batch: 460-426923 | Lab File ID: L138538.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 03/30/2017 0149 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1222 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------------------------|--------------|--------|--------|----------|------|
| Chrysene | 3330 | 3110 | 93 | 70 - 111 | |
| Dibenz(a,h)anthracene | 3330 | 3300 | 99 | 60 - 130 | |
| Dibenzofuran | 3330 | 3190 | 96 | 67 - 107 | |
| Diethyl phthalate | 3330 | 3330 | 100 | 66 - 117 | |
| Dimethyl phthalate | 3330 | 3280 | 99 | 68 - 112 | |
| Di-n-butyl phthalate | 3330 | 3320 | 99 | 67 - 119 | |
| Di-n-octyl phthalate | 3330 | 3470 | 104 | 57 - 138 | |
| Fluoranthene | 3330 | 3360 | 101 | 64 - 114 | |
| Fluorene | 3330 | 3250 | 97 | 66 - 110 | |
| Hexachlorobenzene | 3330 | 3530 | 106 | 57 - 128 | |
| Hexachlorobutadiene | 3330 | 3380 | 102 | 60 - 108 | |
| Hexachlorocyclopentadiene | 3330 | 3520 | 106 | 50 - 129 | |
| Hexachloroethane | 3330 | 2910 | 87 | 63 - 99 | |
| Indeno[1,2,3-cd]pyrene | 3330 | 3260 | 98 | 53 - 137 | |
| Isophorone | 3330 | 3020 | 90 | 68 - 111 | |
| Naphthalene | 3330 | 3080 | 92 | 65 - 102 | |
| Nitrobenzene | 3330 | 2970 | 89 | 66 - 108 | |
| N-Nitrosodi-n-propylamine | 3330 | 3050 | 92 | 63 - 117 | |
| N-Nitrosodiphenylamine | 3330 | 3150 | 95 | 65 - 114 | |
| Pentachlorophenol | 6670 | 5730 | 86 | 56 - 116 | |
| Phenanthrene | 3330 | 3150 | 95 | 68 - 111 | |
| Phenol | 3330 | 3120 | 94 | 58 - 103 | |
| Pyrene | 3330 | 3140 | 94 | 64 - 121 | |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 120 * | 10 - 103 |
| 2-Fluorobiphenyl | 90 | 38 - 95 |
| 2-Fluorophenol (Surr) | 86 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 86 | 37 - 94 |
| Phenol-d5 (Surr) | 86 | 32 - 91 |
| Terphenyl-d14 (Surr) | 101 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample - Batch: 460-426923

**Method: 8270D
Preparation: 3546**

| | | | | | |
|----------------|--------------------|-----------------|------------|------------------------|-----------|
| Lab Sample ID: | LCS 460-426923/3-A | Analysis Batch: | 460-427031 | Instrument ID: | CBNAMS12 |
| Client Matrix: | Solid | Prep Batch: | 460-426923 | Lab File ID: | L138539.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 15.0000 g |
| Analysis Date: | 03/30/2017 0212 | Units: | ug/Kg | Final Weight/Volume: | 1 mL |
| Prep Date: | 03/29/2017 1222 | | | Injection Volume: | 1 uL |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------------------------|--------------|--------|--------|-------------------|------|
| Atrazine | 6670 | 7340 | 110 | 62 - 137 | |
| Benzaldehyde | 6670 | 5390 | 81 | 52 - 113 | |
| Caprolactam | 6670 | 7820 | 117 | 53 - 148 | |
| Surrogate | | | % Rec | Acceptance Limits | |
| 2,4,6-Tribromophenol (Surr) | | | 110 | 10 - 103 | * |
| 2-Fluorobiphenyl | | | 92 | 38 - 95 | |
| 2-Fluorophenol (Surr) | | | 90 | 25 - 92 | |
| Nitrobenzene-d5 (Surr) | | | 88 | 37 - 94 | |
| Phenol-d5 (Surr) | | | 89 | 32 - 91 | |
| Terphenyl-d14 (Surr) | | | 110 | 24 - 109 | * |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-426923**

**Method: 8270D
Preparation: 3546**

MS Lab Sample ID: 460-130404-4
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/30/2017 0842
Prep Date: 03/29/2017 1222
Leach Date: N/A

Analysis Batch: 460-427031
Prep Batch: 460-426923
Leach Batch: N/A

Instrument ID: CBNAMS12
Lab File ID: L138556.D
Initial Weight/Volume: 15.0236 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

MSD Lab Sample ID: 460-130404-4
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/30/2017 0905
Prep Date: 03/29/2017 1222
Leach Date: N/A

Analysis Batch: 460-427031
Prep Batch: 460-426923
Leach Batch: N/A

Instrument ID: CBNAMS12
Lab File ID: L138557.D
Initial Weight/Volume: 15.0247 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| 1,1'-Biphenyl | 77 | 80 | 64 - 108 | 4 | 30 | | |
| 1,2,4,5-Tetrachlorobenzene | 77 | 81 | 57 - 112 | 5 | 30 | | |
| 2,2'-oxybis[1-chloropropane] | 53 | 57 | 39 - 122 | 6 | 30 | | |
| 2,3,4,6-Tetrachlorophenol | 25 | 31 | 60 - 114 | 20 | 30 | * | * |
| 2,4,5-Trichlorophenol | 49 | 53 | 60 - 106 | 8 | 30 | * | * |
| 2,4,6-Trichlorophenol | 51 | 56 | 62 - 110 | 10 | 30 | * | * |
| 2,4-Dichlorophenol | 63 | 68 | 61 - 103 | 8 | 30 | | |
| 2,4-Dimethylphenol | 68 | 74 | 63 - 101 | 7 | 30 | | |
| 2,4-Dinitrophenol | 0 | 0 | 56 - 122 | NC | 30 | U * | U * |
| 2,4-Dinitrotoluene | 88 | 92 | 66 - 122 | 4 | 30 | | |
| 2,6-Dinitrotoluene | 83 | 88 | 70 - 114 | 6 | 30 | | |
| 2-Chloronaphthalene | 75 | 79 | 63 - 107 | 5 | 30 | | |
| 2-Chlorophenol | 67 | 70 | 62 - 97 | 4 | 30 | | |
| 2-Methylnaphthalene | 76 | 80 | 65 - 104 | 5 | 30 | | |
| 2-Methylphenol | 71 | 73 | 61 - 103 | 3 | 30 | | |
| 2-Nitroaniline | 61 | 66 | 57 - 114 | 8 | 30 | | |
| 2-Nitrophenol | 36 | 42 | 65 - 104 | 16 | 30 | * | * |
| 3,3'-Dichlorobenzidine | 59 | 63 | 18 - 88 | 8 | 30 | | |
| 3-Nitroaniline | 68 | 74 | 30 - 94 | 8 | 30 | | |
| 4,6-Dinitro-2-methylphenol | 4 | 6 | 67 - 120 | 25 | 30 | * | * |
| 4-Bromophenyl phenyl ether | 82 | 87 | 59 - 122 | 6 | 30 | | |
| 4-Chloro-3-methylphenol | 72 | 74 | 62 - 111 | 4 | 30 | | |
| 4-Chloroaniline | 48 | 54 | 18 - 94 | 11 | 30 | | |
| 4-Chlorophenyl phenyl ether | 82 | 85 | 66 - 110 | 3 | 30 | | |
| 4-Methylphenol | 64 | 66 | 61 - 105 | 4 | 30 | | |
| 4-Nitroaniline | 74 | 79 | 49 - 118 | 6 | 30 | | |
| 4-Nitrophenol | 40 | 45 | 43 - 141 | 14 | 30 | * | |
| Acenaphthene | 71 | 74 | 62 - 108 | 5 | 30 | | |
| Acenaphthylene | 78 | 81 | 67 - 107 | 5 | 30 | | |
| Acetophenone | 71 | 75 | 60 - 109 | 6 | 30 | | |
| Anthracene | 76 | 80 | 69 - 111 | 5 | 30 | | |
| Atrazine | 89 | 94 | 62 - 137 | 6 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-426923**

**Method: 8270D
Preparation: 3546**

MS Lab Sample ID: 460-130404-4
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/30/2017 0842
Prep Date: 03/29/2017 1222
Leach Date: N/A

Analysis Batch: 460-427031
Prep Batch: 460-426923
Leach Batch: N/A

Instrument ID: CBNAMS12
Lab File ID: L138556.D
Initial Weight/Volume: 15.0236 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

MSD Lab Sample ID: 460-130404-4
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/30/2017 0905
Prep Date: 03/29/2017 1222
Leach Date: N/A

Analysis Batch: 460-427031
Prep Batch: 460-426923
Leach Batch: N/A

Instrument ID: CBNAMS12
Lab File ID: L138557.D
Initial Weight/Volume: 15.0247 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|-----------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Benzaldehyde | 53 | 55 | 52 - 113 | 3 | 30 | | |
| Benzo[a]anthracene | 76 | 75 | 68 - 110 | 0 | 30 | | |
| Benzo[a]pyrene | 76 | 79 | 72 - 115 | 3 | 30 | | |
| Benzo[b]fluoranthene | 73 | 72 | 69 - 119 | 1 | 30 | | |
| Benzo[g,h,i]perylene | 102 | 111 | 54 - 128 | 8 | 30 | | |
| Benzo[k]fluoranthene | 76 | 73 | 70 - 115 | 4 | 30 | | |
| Bis(2-chloroethoxy)methane | 67 | 72 | 65 - 106 | 8 | 30 | | |
| Bis(2-chloroethyl)ether | 66 | 67 | 64 - 105 | 2 | 30 | | |
| Bis(2-ethylhexyl) phthalate | 89 | 92 | 63 - 125 | 4 | 30 | | |
| Butyl benzyl phthalate | 89 | 90 | 65 - 125 | 0 | 30 | | |
| Caprolactam | 53 | 56 | 53 - 148 | 7 | 30 | | |
| Carbazole | 71 | 75 | 66 - 115 | 5 | 30 | | |
| Chrysene | 78 | 77 | 70 - 111 | 1 | 30 | | |
| Dibenz(a,h)anthracene | 100 | 109 | 60 - 130 | 9 | 30 | | |
| Dibenzofuran | 77 | 81 | 67 - 107 | 5 | 30 | | |
| Diethyl phthalate | 86 | 91 | 66 - 117 | 5 | 30 | | |
| Dimethyl phthalate | 84 | 87 | 68 - 112 | 3 | 30 | | |
| Di-n-butyl phthalate | 83 | 88 | 67 - 119 | 6 | 30 | | |
| Di-n-octyl phthalate | 80 | 76 | 57 - 138 | 5 | 30 | | |
| Fluoranthene | 71 | 71 | 64 - 114 | 0 | 30 | | |
| Fluorene | 76 | 81 | 66 - 110 | 5 | 30 | | |
| Hexachlorobenzene | 83 | 89 | 57 - 128 | 6 | 30 | | |
| Hexachlorobutadiene | 77 | 81 | 60 - 108 | 5 | 30 | | |
| Hexachlorocyclopentadiene | 67 | 71 | 50 - 129 | 6 | 30 | | |
| Hexachloroethane | 66 | 68 | 63 - 99 | 2 | 30 | | |
| Indeno[1,2,3-cd]pyrene | 97 | 106 | 53 - 137 | 9 | 30 | | |
| Isophorone | 71 | 74 | 68 - 111 | 4 | 30 | | |
| Naphthalene | 70 | 75 | 65 - 102 | 7 | 30 | | |
| Nitrobenzene | 68 | 70 | 66 - 108 | 4 | 30 | | |
| N-Nitrosodi-n-propylamine | 72 | 77 | 63 - 117 | 7 | 30 | | |
| N-Nitrosodiphenylamine | 76 | 81 | 65 - 114 | 6 | 30 | | |
| Pentachlorophenol | 6 | 9 | 56 - 116 | 31 | 30 | * | * |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-426923**

**Method: 8270D
Preparation: 3546**

MS Lab Sample ID: 460-130404-4
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/30/2017 0842
Prep Date: 03/29/2017 1222
Leach Date: N/A

Analysis Batch: 460-427031
Prep Batch: 460-426923
Leach Batch: N/A

Instrument ID: CBNAMS12
Lab File ID: L138556.D
Initial Weight/Volume: 15.0236 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

MSD Lab Sample ID: 460-130404-4
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/30/2017 0905
Prep Date: 03/29/2017 1222
Leach Date: N/A

Analysis Batch: 460-427031
Prep Batch: 460-426923
Leach Batch: N/A

Instrument ID: CBNAMS12
Lab File ID: L138557.D
Initial Weight/Volume: 15.0247 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|-----------------------------|----------|-----|-----------|-----|-------------------|---------|----------|
| | MS | MSD | | | | | |
| Phenanthrene | 71 | 74 | 68 - 111 | 4 | 30 | | |
| Phenol | 70 | 72 | 58 - 103 | 3 | 30 | | |
| Pyrene | 78 | 75 | 64 - 121 | 4 | 30 | | |
| Surrogate | MS % Rec | | MSD % Rec | | Acceptance Limits | | |
| 2,4,6-Tribromophenol (Surr) | 57 | | 62 | | 10 - 103 | | |
| 2-Fluorobiphenyl | 74 | | 79 | | 38 - 95 | | |
| 2-Fluorophenol (Surr) | 61 | | 63 | | 25 - 92 | | |
| Nitrobenzene-d5 (Surr) | 67 | | 71 | | 37 - 94 | | |
| Phenol-d5 (Surr) | 67 | | 70 | | 32 - 91 | | |
| Terphenyl-d14 (Surr) | 88 | | 87 | | 24 - 109 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-426926

**Method: 8270D
Preparation: 3546**

Lab Sample ID: MB 460-426926/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/31/2017 0747
 Prep Date: 03/29/2017 1229
 Leach Date: N/A

Analysis Batch: 460-427323
 Prep Batch: 460-426926
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CBNAMS12
 Lab File ID: L138602.D
 Initial Weight/Volume: 15.0000 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

| Analyte | Result | Qual | MDL | RL |
|------------------------------|--------|------|-----|-----|
| 1,1'-Biphenyl | 330 | U | 28 | 330 |
| 1,2,4,5-Tetrachlorobenzene | 330 | U | 25 | 330 |
| 2,2'-oxybis[1-chloropropane] | 330 | U | 14 | 330 |
| 2,3,4,6-Tetrachlorophenol | 330 | U | 31 | 330 |
| 2,4,5-Trichlorophenol | 330 | U | 33 | 330 |
| 2,4,6-Trichlorophenol | 130 | U | 9.4 | 130 |
| 2,4-Dichlorophenol | 130 | U | 7.8 | 130 |
| 2,4-Dimethylphenol | 330 | U | 73 | 330 |
| 2,4-Dinitrophenol | 270 | U | 250 | 270 |
| 2,4-Dinitrotoluene | 67 | U | 13 | 67 |
| 2,6-Dinitrotoluene | 67 | U | 18 | 67 |
| 2-Chloronaphthalene | 330 | U | 7.5 | 330 |
| 2-Chlorophenol | 330 | U | 8.4 | 330 |
| 2-Methylnaphthalene | 330 | U | 7.3 | 330 |
| 2-Methylphenol | 330 | U | 14 | 330 |
| 2-Nitroaniline | 330 | U | 11 | 330 |
| 2-Nitrophenol | 330 | U | 11 | 330 |
| 3,3'-Dichlorobenzidine | 130 | U | 37 | 130 |
| 3-Nitroaniline | 330 | U | 9.8 | 330 |
| 4,6-Dinitro-2-methylphenol | 270 | U | 88 | 270 |
| 4-Bromophenyl phenyl ether | 330 | U | 10 | 330 |
| 4-Chloro-3-methylphenol | 330 | U | 14 | 330 |
| 4-Chloroaniline | 330 | U | 8.5 | 330 |
| 4-Chlorophenyl phenyl ether | 330 | U | 9.9 | 330 |
| 4-Methylphenol | 330 | U | 9.0 | 330 |
| 4-Nitroaniline | 330 | U | 13 | 330 |
| 4-Nitrophenol | 670 | U | 160 | 670 |
| Acenaphthene | 330 | U | 8.0 | 330 |
| Acenaphthylene | 330 | U | 8.5 | 330 |
| Acetophenone | 330 | U | 7.2 | 330 |
| Anthracene | 330 | U | 31 | 330 |
| Atrazine | 130 | U | 15 | 130 |
| Benzaldehyde | 330 | U | 25 | 330 |
| Benzo[a]anthracene | 33 | U | 28 | 33 |
| Benzo[a]pyrene | 33 | U | 10 | 33 |
| Benzo[b]fluoranthene | 33 | U | 13 | 33 |
| Benzo[g,h,i]perylene | 330 | U | 19 | 330 |
| Benzo[k]fluoranthene | 33 | U | 14 | 33 |
| Bis(2-chloroethoxy)methane | 330 | U | 10 | 330 |
| Bis(2-chloroethyl)ether | 33 | U | 7.8 | 33 |
| Bis(2-ethylhexyl) phthalate | 330 | U | 13 | 330 |
| Butyl benzyl phthalate | 330 | U | 10 | 330 |
| Caprolactam | 330 | U | 24 | 330 |
| Carbazole | 330 | U | 8.2 | 330 |
| Chrysene | 330 | U | 9.0 | 330 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-426926

**Method: 8270D
Preparation: 3546**

| | | |
|----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: MB 460-426926/1-A | Analysis Batch: 460-427323 | Instrument ID: CBNAMS12 |
| Client Matrix: Solid | Prep Batch: 460-426926 | Lab File ID: L138602.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 03/31/2017 0747 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1229 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|-----|-----|
| Dibenz(a,h)anthracene | 33 | U | 17 | 33 |
| Dibenzofuran | 330 | U | 10 | 330 |
| Diethyl phthalate | 330 | U | 9.4 | 330 |
| Dimethyl phthalate | 330 | U | 9.6 | 330 |
| Di-n-butyl phthalate | 330 | U | 9.9 | 330 |
| Di-n-octyl phthalate | 330 | U | 17 | 330 |
| Fluoranthene | 330 | U | 9.8 | 330 |
| Fluorene | 330 | U | 7.2 | 330 |
| Hexachlorobenzene | 33 | U | 13 | 33 |
| Hexachlorobutadiene | 67 | U | 9.3 | 67 |
| Hexachlorocyclopentadiene | 330 | U | 21 | 330 |
| Hexachloroethane | 33 | U | 12 | 33 |
| Indeno[1,2,3-cd]pyrene | 33 | U | 22 | 33 |
| Isophorone | 130 | U | 7.1 | 130 |
| Naphthalene | 330 | U | 8.4 | 330 |
| Nitrobenzene | 33 | U | 10 | 33 |
| N-Nitrosodi-n-propylamine | 33 | U | 11 | 33 |
| N-Nitrosodiphenylamine | 330 | U | 30 | 330 |
| Pentachlorophenol | 270 | U | 40 | 270 |
| Phenanthrene | 330 | U | 8.8 | 330 |
| Phenol | 330 | U | 11 | 330 |
| Pyrene | 330 | U | 15 | 330 |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 67 | 10 - 103 |
| 2-Fluorobiphenyl | 72 | 38 - 95 |
| 2-Fluorophenol (Surr) | 71 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 82 | 37 - 94 |
| Phenol-d5 (Surr) | 76 | 32 - 91 |
| Terphenyl-d14 (Surr) | 86 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample - Batch: 460-426926

Method: 8270D
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-426926/2-A | Analysis Batch: 460-427323 | Instrument ID: CBNAMS12 |
| Client Matrix: Solid | Prep Batch: 460-426926 | Lab File ID: L138601.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 03/31/2017 0726 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1229 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------------|--------------|--------|--------|----------|------|
| 1,1'-Biphenyl | 3330 | 3410 | 102 | 64 - 108 | |
| 1,2,4,5-Tetrachlorobenzene | 3330 | 3630 | 109 | 57 - 112 | |
| 2,2'-oxybis[1-chloropropane] | 3330 | 2480 | 74 | 39 - 122 | |
| 2,3,4,6-Tetrachlorophenol | 3330 | 3030 | 91 | 60 - 114 | |
| 2,4,5-Trichlorophenol | 3330 | 3310 | 99 | 60 - 106 | |
| 2,4,6-Trichlorophenol | 3330 | 3420 | 103 | 62 - 110 | |
| 2,4-Dichlorophenol | 3330 | 3130 | 94 | 61 - 103 | |
| 2,4-Dimethylphenol | 3330 | 3110 | 93 | 63 - 101 | |
| 2,4-Dinitrophenol | 6670 | 6040 | 91 | 56 - 122 | |
| 2,4-Dinitrotoluene | 3330 | 3120 | 94 | 66 - 122 | |
| 2,6-Dinitrotoluene | 3330 | 2990 | 90 | 70 - 114 | |
| 2-Chloronaphthalene | 3330 | 3190 | 96 | 63 - 107 | |
| 2-Chlorophenol | 3330 | 2870 | 86 | 62 - 97 | |
| 2-Methylnaphthalene | 3330 | 3140 | 94 | 65 - 104 | |
| 2-Methylphenol | 3330 | 3200 | 96 | 61 - 103 | |
| 2-Nitroaniline | 3330 | 2910 | 87 | 57 - 114 | |
| 2-Nitrophenol | 3330 | 3150 | 95 | 65 - 104 | |
| 3,3'-Dichlorobenzidine | 3330 | 1310 | 39 | 18 - 88 | |
| 3-Nitroaniline | 3330 | 1100 | 33 | 30 - 94 | |
| 4,6-Dinitro-2-methylphenol | 6670 | 6060 | 91 | 67 - 120 | |
| 4-Bromophenyl phenyl ether | 3330 | 3390 | 102 | 59 - 122 | |
| 4-Chloro-3-methylphenol | 3330 | 3440 | 103 | 62 - 111 | |
| 4-Chloroaniline | 3330 | 596 | 18 | 18 - 94 | |
| 4-Chlorophenyl phenyl ether | 3330 | 3360 | 101 | 66 - 110 | |
| 4-Methylphenol | 3330 | 2830 | 85 | 61 - 105 | |
| 4-Nitroaniline | 3330 | 1950 | 58 | 49 - 118 | |
| 4-Nitrophenol | 6670 | 6510 | 98 | 43 - 141 | |
| Acenaphthene | 3330 | 3200 | 96 | 62 - 108 | |
| Acenaphthylene | 3330 | 3350 | 101 | 67 - 107 | |
| Acetophenone | 3330 | 3250 | 98 | 60 - 109 | |
| Anthracene | 3330 | 3080 | 92 | 69 - 111 | |
| Benzo[a]anthracene | 3330 | 3140 | 94 | 68 - 110 | |
| Benzo[a]pyrene | 3330 | 3230 | 97 | 72 - 115 | |
| Benzo[b]fluoranthene | 3330 | 3290 | 99 | 69 - 119 | |
| Benzo[g,h,i]perylene | 3330 | 2960 | 89 | 54 - 128 | |
| Benzo[k]fluoranthene | 3330 | 3190 | 96 | 70 - 115 | |
| Bis(2-chloroethoxy)methane | 3330 | 3280 | 98 | 65 - 106 | |
| Bis(2-chloroethyl)ether | 3330 | 3280 | 99 | 64 - 105 | |
| Bis(2-ethylhexyl) phthalate | 3330 | 3160 | 95 | 63 - 125 | |
| Butyl benzyl phthalate | 3330 | 3210 | 96 | 65 - 125 | |
| Carbazole | 3330 | 2790 | 84 | 66 - 115 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample - Batch: 460-426926

**Method: 8270D
Preparation: 3546**

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-426926/2-A | Analysis Batch: 460-427323 | Instrument ID: CBNAMS12 |
| Client Matrix: Solid | Prep Batch: 460-426926 | Lab File ID: L138601.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 03/31/2017 0726 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1229 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------------------------|--------------|--------|--------|----------|------|
| Chrysene | 3330 | 3210 | 96 | 70 - 111 | |
| Dibenz(a,h)anthracene | 3330 | 3120 | 94 | 60 - 130 | |
| Dibenzofuran | 3330 | 3240 | 97 | 67 - 107 | |
| Diethyl phthalate | 3330 | 3000 | 90 | 66 - 117 | |
| Dimethyl phthalate | 3330 | 3080 | 92 | 68 - 112 | |
| Di-n-butyl phthalate | 3330 | 2830 | 85 | 67 - 119 | |
| Di-n-octyl phthalate | 3330 | 3290 | 99 | 57 - 138 | |
| Fluoranthene | 3330 | 2830 | 85 | 64 - 114 | |
| Fluorene | 3330 | 3170 | 95 | 66 - 110 | |
| Hexachlorobenzene | 3330 | 3330 | 100 | 57 - 128 | |
| Hexachlorobutadiene | 3330 | 3360 | 101 | 60 - 108 | |
| Hexachlorocyclopentadiene | 3330 | 3880 | 116 | 50 - 129 | |
| Hexachloroethane | 3330 | 2940 | 88 | 63 - 99 | |
| Indeno[1,2,3-cd]pyrene | 3330 | 3190 | 96 | 53 - 137 | |
| Isophorone | 3330 | 3700 | 111 | 68 - 111 | |
| Naphthalene | 3330 | 3080 | 92 | 65 - 102 | |
| Nitrobenzene | 3330 | 3720 | 112 | 66 - 108 | * |
| N-Nitrosodi-n-propylamine | 3330 | 3750 | 112 | 63 - 117 | |
| N-Nitrosodiphenylamine | 3330 | 3330 | 100 | 65 - 114 | |
| Pentachlorophenol | 6670 | 5310 | 80 | 56 - 116 | |
| Phenanthrene | 3330 | 3110 | 93 | 68 - 111 | |
| Phenol | 3330 | 3430 | 103 | 58 - 103 | |
| Pyrene | 3330 | 3610 | 108 | 64 - 121 | |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 88 | 10 - 103 |
| 2-Fluorobiphenyl | 94 | 38 - 95 |
| 2-Fluorophenol (Surr) | 91 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 104 | 37 - 94 |
| Phenol-d5 (Surr) | 96 | 32 - 91 |
| Terphenyl-d14 (Surr) | 98 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample - Batch: 460-426926

**Method: 8270D
Preparation: 3546**

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-426926/3-A | Analysis Batch: 460-427323 | Instrument ID: CBNAMS12 |
| Client Matrix: Solid | Prep Batch: 460-426926 | Lab File ID: L138603.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 03/31/2017 0808 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1229 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|--------------|--------------|--------|--------|----------|------|
| Atrazine | 6670 | 6470 | 97 | 62 - 137 | |
| Benzaldehyde | 6670 | 6470 | 97 | 52 - 113 | |
| Caprolactam | 6670 | 7980 | 120 | 53 - 148 | |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 79 | 10 - 103 |
| 2-Fluorobiphenyl | 87 | 38 - 95 |
| 2-Fluorophenol (Surr) | 88 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 100 | 37 - 94 |
| Phenol-d5 (Surr) | 90 | 32 - 91 |
| Terphenyl-d14 (Surr) | 105 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-426926**

**Method: 8270D
Preparation: 3546**

MS Lab Sample ID: 460-130404-7
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/31/2017 1431
Prep Date: 03/29/2017 1229
Leach Date: N/A

Analysis Batch: 460-427323
Prep Batch: 460-426926
Leach Batch: N/A

Instrument ID: CBNAMS12
Lab File ID: L138621.D
Initial Weight/Volume: 15.0252 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

MSD Lab Sample ID: 460-130404-7
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/31/2017 1452
Prep Date: 03/29/2017 1229
Leach Date: N/A

Analysis Batch: 460-427323
Prep Batch: 460-426926
Leach Batch: N/A

Instrument ID: CBNAMS12
Lab File ID: L138622.D
Initial Weight/Volume: 15.0242 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| 1,1'-Biphenyl | 86 | 85 | 64 - 108 | 1 | 30 | | |
| 1,2,4,5-Tetrachlorobenzene | 92 | 91 | 57 - 112 | 1 | 30 | | |
| 2,2'-oxybis[1-chloropropane] | 53 | 54 | 39 - 122 | 2 | 30 | | |
| 2,3,4,6-Tetrachlorophenol | 42 | 40 | 60 - 114 | 5 | 30 | * | * |
| 2,4,5-Trichlorophenol | 54 | 54 | 60 - 106 | 1 | 30 | * | * |
| 2,4,6-Trichlorophenol | 70 | 66 | 62 - 110 | 5 | 30 | | |
| 2,4-Dichlorophenol | 62 | 61 | 61 - 103 | 1 | 30 | | |
| 2,4-Dimethylphenol | 70 | 70 | 63 - 101 | 1 | 30 | | |
| 2,4-Dinitrophenol | 0 | 0 | 56 - 122 | NC | 30 | U * | U * |
| 2,4-Dinitrotoluene | 81 | 79 | 66 - 122 | 2 | 30 | | |
| 2,6-Dinitrotoluene | 81 | 78 | 70 - 114 | 4 | 30 | | |
| 2-Chloronaphthalene | 79 | 79 | 63 - 107 | 0 | 30 | | |
| 2-Chlorophenol | 59 | 59 | 62 - 97 | 1 | 30 | * | * |
| 2-Methylnaphthalene | 72 | 72 | 65 - 104 | 1 | 30 | | |
| 2-Methylphenol | 65 | 66 | 61 - 103 | 2 | 30 | | |
| 2-Nitroaniline | 72 | 69 | 57 - 114 | 4 | 30 | | |
| 2-Nitrophenol | 55 | 56 | 65 - 104 | 2 | 30 | * | * |
| 3,3'-Dichlorobenzidine | 60 | 58 | 18 - 88 | 5 | 30 | | |
| 3-Nitroaniline | 51 | 46 | 30 - 94 | 10 | 30 | | |
| 4,6-Dinitro-2-methylphenol | 8 | 6 | 67 - 120 | 19 | 30 | * | * |
| 4-Bromophenyl phenyl ether | 79 | 81 | 59 - 122 | 3 | 30 | | |
| 4-Chloro-3-methylphenol | 71 | 73 | 62 - 111 | 2 | 30 | | |
| 4-Chloroaniline | 30 | 30 | 18 - 94 | 1 | 30 | | |
| 4-Chlorophenyl phenyl ether | 80 | 80 | 66 - 110 | 0 | 30 | | |
| 4-Methylphenol | 56 | 57 | 61 - 105 | 2 | 30 | * | * |
| 4-Nitroaniline | 37 | 44 | 49 - 118 | 18 | 30 | * | * |
| 4-Nitrophenol | 57 | 51 | 43 - 141 | 11 | 30 | | |
| Acenaphthene | 76 | 74 | 62 - 108 | 2 | 30 | | |
| Acenaphthylene | 82 | 80 | 67 - 107 | 2 | 30 | | |
| Acetophenone | 70 | 72 | 60 - 109 | 3 | 30 | | |
| Anthracene | 81 | 72 | 69 - 111 | 11 | 30 | | |
| Atrazine | 90 | 93 | 62 - 137 | 2 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-426926**

**Method: 8270D
Preparation: 3546**

MS Lab Sample ID: 460-130404-7
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/31/2017 1431
Prep Date: 03/29/2017 1229
Leach Date: N/A

Analysis Batch: 460-427323
Prep Batch: 460-426926
Leach Batch: N/A

Instrument ID: CBNAMS12
Lab File ID: L138621.D
Initial Weight/Volume: 15.0252 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

MSD Lab Sample ID: 460-130404-7
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/31/2017 1452
Prep Date: 03/29/2017 1229
Leach Date: N/A

Analysis Batch: 460-427323
Prep Batch: 460-426926
Leach Batch: N/A

Instrument ID: CBNAMS12
Lab File ID: L138622.D
Initial Weight/Volume: 15.0242 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|-----------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Benzaldehyde | 68 | 68 | 52 - 113 | 1 | 30 | | |
| Benzo[a]anthracene | 96 | 73 | 68 - 110 | 23 | 30 | | |
| Benzo[a]pyrene | 98 | 79 | 72 - 115 | 19 | 30 | | |
| Benzo[b]fluoranthene | 99 | 80 | 69 - 119 | 18 | 30 | | |
| Benzo[g,h,i]perylene | 63 | 50 | 54 - 128 | 20 | 30 | | * |
| Benzo[k]fluoranthene | 94 | 82 | 70 - 115 | 13 | 30 | | |
| Bis(2-chloroethoxy)methane | 79 | 80 | 65 - 106 | 2 | 30 | | |
| Bis(2-chloroethyl)ether | 72 | 73 | 64 - 105 | 2 | 30 | | |
| Bis(2-ethylhexyl) phthalate | 66 | 66 | 63 - 125 | 1 | 30 | | |
| Butyl benzyl phthalate | 65 | 63 | 65 - 125 | 3 | 30 | | * |
| Caprolactam | 55 | 55 | 53 - 148 | 1 | 30 | | |
| Carbazole | 73 | 68 | 66 - 115 | 7 | 30 | | |
| Chrysene | 101 | 78 | 70 - 111 | 22 | 30 | | |
| Dibenz(a,h)anthracene | 61 | 55 | 60 - 130 | 10 | 30 | | * |
| Dibenzofuran | 80 | 78 | 67 - 107 | 3 | 30 | | |
| Diethyl phthalate | 83 | 83 | 66 - 117 | 0 | 30 | | |
| Dimethyl phthalate | 84 | 84 | 68 - 112 | 0 | 30 | | |
| Di-n-butyl phthalate | 81 | 82 | 67 - 119 | 1 | 30 | | |
| Di-n-octyl phthalate | 74 | 73 | 57 - 138 | 1 | 30 | | |
| Fluoranthene | 129 | 81 | 64 - 114 | 35 | 30 | * | * |
| Fluorene | 77 | 73 | 66 - 110 | 5 | 30 | | |
| Hexachlorobenzene | 77 | 79 | 57 - 128 | 4 | 30 | | |
| Hexachlorobutadiene | 85 | 86 | 60 - 108 | 1 | 30 | | |
| Hexachlorocyclopentadiene | 34 | 37 | 50 - 129 | 9 | 30 | * | * |
| Hexachloroethane | 67 | 68 | 63 - 99 | 1 | 30 | | |
| Indeno[1,2,3-cd]pyrene | 70 | 57 | 53 - 137 | 18 | 30 | | |
| Isophorone | 93 | 93 | 68 - 111 | 0 | 30 | | |
| Naphthalene | 74 | 73 | 65 - 102 | 0 | 30 | | |
| Nitrobenzene | 85 | 86 | 66 - 108 | 1 | 30 | * | * |
| N-Nitrosodi-n-propylamine | 81 | 82 | 63 - 117 | 1 | 30 | | |
| N-Nitrosodiphenylamine | 77 | 80 | 65 - 114 | 3 | 30 | | |
| Pentachlorophenol | 18 | 19 | 56 - 116 | 8 | 30 | * | * |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-426926**

**Method: 8270D
Preparation: 3546**

MS Lab Sample ID: 460-130404-7
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/31/2017 1431
Prep Date: 03/29/2017 1229
Leach Date: N/A

Analysis Batch: 460-427323
Prep Batch: 460-426926
Leach Batch: N/A

Instrument ID: CBNAMS12
Lab File ID: L138621.D
Initial Weight/Volume: 15.0252 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

MSD Lab Sample ID: 460-130404-7
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/31/2017 1452
Prep Date: 03/29/2017 1229
Leach Date: N/A

Analysis Batch: 460-427323
Prep Batch: 460-426926
Leach Batch: N/A

Instrument ID: CBNAMS12
Lab File ID: L138622.D
Initial Weight/Volume: 15.0242 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|--------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Phenanthrene | 102 | 70 | 68 - 111 | 30 | 30 | | |
| Phenol | 67 | 68 | 58 - 103 | 1 | 30 | | |
| Pyrene | 81 | 51 | 64 - 121 | 34 | 30 | | * |

| Surrogate | MS % Rec | MSD % Rec | Acceptance Limits |
|-----------------------------|----------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 58 | 54 | 10 - 103 |
| 2-Fluorobiphenyl | 82 | 83 | 38 - 95 |
| 2-Fluorophenol (Surr) | 61 | 61 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 84 | 85 | 37 - 94 |
| Phenol-d5 (Surr) | 65 | 65 | 32 - 91 |
| Terphenyl-d14 (Surr) | 53 | 51 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-426820

**Method: 8081B
Preparation: 3546**

Lab Sample ID: MB 460-426820/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/29/2017 1225
 Prep Date: 03/29/2017 0210
 Leach Date: N/A

Analysis Batch: 460-426902
 Prep Batch: 460-426820
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CPESTGC4
 Lab File ID: P4202892.D
 Initial Weight/Volume: +15.0000 g
 Final Weight/Volume: 10 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|-----------------------|--------|------|------|-----|
| 4,4'-DDD | 6.7 | U | 0.88 | 6.7 |
| 4,4'-DDE | 6.7 | U | 0.97 | 6.7 |
| 4,4'-DDT | 6.7 | U | 0.69 | 6.7 |
| Aldrin | 6.7 | U | 0.81 | 6.7 |
| alpha-BHC | 2.0 | U | 0.61 | 2.0 |
| beta-BHC | 2.0 | U | 0.65 | 2.0 |
| Chlordane (technical) | 67 | U | 30 | 67 |
| delta-BHC | 2.0 | U | 0.73 | 2.0 |
| Dieldrin | 2.0 | U | 0.87 | 2.0 |
| Endosulfan I | 6.7 | U | 0.93 | 6.7 |
| Endosulfan II | 6.7 | U | 1.1 | 6.7 |
| Endosulfan sulfate | 6.7 | U | 0.78 | 6.7 |
| Endrin | 6.7 | U | 0.85 | 6.7 |
| Endrin aldehyde | 6.7 | U | 0.83 | 6.7 |
| Endrin ketone | 6.7 | U | 0.93 | 6.7 |
| gamma-BHC (Lindane) | 2.0 | U | 0.60 | 2.0 |
| Heptachlor | 6.7 | U | 0.86 | 6.7 |
| Heptachlor epoxide | 6.7 | U | 1.3 | 6.7 |
| Methoxychlor | 6.7 | U | 1.4 | 6.7 |
| Toxaphene | 67 | U | 20 | 67 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 99 | 50 - 150 |
| Tetrachloro-m-xylene | 105 | 47 - 150 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 96 | 50 - 150 |
| Tetrachloro-m-xylene | 91 | 47 - 150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample - Batch: 460-426820

Method: 8081B
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|-----------------------------------|
| Lab Sample ID: LCS 460-426820/2-A | Analysis Batch: 460-426902 | Instrument ID: CPESTGC4 |
| Client Matrix: Solid | Prep Batch: 460-426820 | Lab File ID: P4202893.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0000 g |
| Analysis Date: 03/29/2017 1237 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/29/2017 0210 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|--------|-------------------|------|
| 4,4'-DDD | 133 | 104 | 78 | 64 - 129 | |
| 4,4'-DDE | 133 | 108 | 81 | 65 - 129 | |
| 4,4'-DDT | 133 | 111 | 83 | 59 - 124 | |
| Aldrin | 133 | 120 | 90 | 66 - 127 | |
| alpha-BHC | 133 | 122 | 92 | 69 - 131 | |
| beta-BHC | 133 | 119 | 89 | 69 - 127 | |
| delta-BHC | 133 | 121 | 91 | 64 - 129 | |
| Dieldrin | 133 | 119 | 89 | 65 - 128 | |
| Endosulfan I | 133 | 123 | 92 | 66 - 126 | |
| Endosulfan II | 133 | 115 | 86 | 64 - 124 | |
| Endosulfan sulfate | 133 | 116 | 87 | 62 - 123 | |
| Endrin | 133 | 116 | 87 | 58 - 126 | |
| Endrin aldehyde | 133 | 119 | 90 | 69 - 131 | |
| Endrin ketone | 133 | 115 | 87 | 62 - 125 | |
| gamma-BHC (Lindane) | 133 | 118 | 89 | 67 - 126 | |
| Heptachlor | 133 | 118 | 88 | 63 - 125 | |
| Heptachlor epoxide | 133 | 117 | 88 | 64 - 125 | |
| Methoxychlor | 133 | 107 | 80 | 56 - 123 | |
| Surrogate | | % Rec | | Acceptance Limits | |
| DCB Decachlorobiphenyl | | 97 | | 50 - 150 | |
| Tetrachloro-m-xylene | | 99 | | 47 - 150 | |

Lab Control Sample - Batch: 460-426820

Method: 8081B
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|-----------------------------------|
| Lab Sample ID: LCS 460-426820/2-A | Analysis Batch: 460-426902 | Instrument ID: CPESTGC4 |
| Client Matrix: Solid | Prep Batch: 460-426820 | Lab File ID: P4202893.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0000 g |
| Analysis Date: 03/29/2017 1237 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/29/2017 0210 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|----------|------|
| 4,4'-DDD | 133 | 98.7 | 74 | 64 - 129 | |
| 4,4'-DDE | 133 | 102 | 77 | 65 - 129 | |
| 4,4'-DDT | 133 | 98.3 | 74 | 59 - 124 | |
| Aldrin | 133 | 104 | 78 | 66 - 127 | |
| alpha-BHC | 133 | 107 | 80 | 69 - 131 | |
| beta-BHC | 133 | 116 | 87 | 69 - 127 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample - Batch: 460-426820

Method: 8081B
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|-----------------------------------|
| Lab Sample ID: LCS 460-426820/2-A | Analysis Batch: 460-426902 | Instrument ID: CPESTGC4 |
| Client Matrix: Solid | Prep Batch: 460-426820 | Lab File ID: P4202893.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0000 g |
| Analysis Date: 03/29/2017 1237 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/29/2017 0210 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|--------|-------------------|------|
| delta-BHC | 133 | 106 | 80 | 64 - 129 | |
| Dieldrin | 133 | 106 | 80 | 65 - 128 | |
| Endosulfan I | 133 | 105 | 78 | 66 - 126 | |
| Endosulfan II | 133 | 107 | 80 | 64 - 124 | |
| Endosulfan sulfate | 133 | 99.7 | 75 | 62 - 123 | |
| Endrin | 133 | 101 | 76 | 58 - 126 | |
| Endrin aldehyde | 133 | 100 | 75 | 69 - 131 | |
| Endrin ketone | 133 | 108 | 81 | 62 - 125 | |
| gamma-BHC (Lindane) | 133 | 105 | 79 | 67 - 126 | |
| Heptachlor | 133 | 107 | 80 | 63 - 125 | |
| Heptachlor epoxide | 133 | 101 | 76 | 64 - 125 | |
| Methoxychlor | 133 | 105 | 79 | 56 - 123 | |
| Surrogate | | % Rec | | Acceptance Limits | |
| DCB Decachlorobiphenyl | | 94 | | 50 - 150 | |
| Tetrachloro-m-xylene | | 95 | | 47 - 150 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-426820**

**Method: 8081B
Preparation: 3546**

MS Lab Sample ID: 460-130404-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/29/2017 1248
Prep Date: 03/29/2017 0210
Leach Date: N/A

Analysis Batch: 460-426902
Prep Batch: 460-426820
Leach Batch: N/A

Instrument ID: CPESTGC4
Lab File ID: P4202894.D
Initial Weight/Volume: +15.0119 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

MSD Lab Sample ID: 460-130404-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/29/2017 1301
Prep Date: 03/29/2017 0210
Leach Date: N/A

Analysis Batch: 460-426902
Prep Batch: 460-426820
Leach Batch: N/A

Instrument ID: CPESTGC4
Lab File ID: P4202895.D
Initial Weight/Volume: +15.0085 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------|----------|-----|-----------|-------------------|-----------|---------|----------|
| | MS | MSD | | | | | |
| 4,4'-DDD | 78 | 77 | 64 - 129 | 2 | 30 | | |
| 4,4'-DDE | 80 | 80 | 65 - 129 | 1 | 30 | | |
| 4,4'-DDT | 80 | 80 | 59 - 124 | 1 | 30 | | |
| Aldrin | 86 | 85 | 66 - 127 | 2 | 30 | | |
| alpha-BHC | 87 | 86 | 69 - 131 | 1 | 30 | | |
| beta-BHC | 84 | 83 | 69 - 127 | 1 | 30 | | |
| delta-BHC | 87 | 86 | 64 - 129 | 1 | 30 | | |
| Dieldrin | 40 | 84 | 65 - 128 | 70 | 30 | p * | * |
| Endosulfan I | 85 | 85 | 66 - 126 | 0 | 30 | | |
| Endosulfan II | 81 | 82 | 64 - 124 | 0 | 30 | | |
| Endosulfan sulfate | 81 | 81 | 62 - 123 | 0 | 30 | | |
| Endrin | 82 | 82 | 58 - 126 | 1 | 30 | | |
| Endrin aldehyde | 85 | 85 | 69 - 131 | 0 | 30 | | |
| Endrin ketone | 82 | 80 | 62 - 125 | 2 | 30 | | |
| gamma-BHC (Lindane) | 85 | 83 | 67 - 126 | 1 | 30 | | |
| Heptachlor | 84 | 83 | 63 - 125 | 2 | 30 | | |
| Heptachlor epoxide | 83 | 83 | 64 - 125 | 0 | 30 | | |
| Methoxychlor | 79 | 76 | 56 - 123 | 4 | 30 | | |
| Surrogate | MS % Rec | | MSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 93 | | 94 | 50 - 150 | | | |
| Tetrachloro-m-xylene | 93 | | 98 | 47 - 150 | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-426820**

**Method: 8081B
Preparation: 3546**

MS Lab Sample ID: 460-130404-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/29/2017 1248
Prep Date: 03/29/2017 0210
Leach Date: N/A

Analysis Batch: 460-426902
Prep Batch: 460-426820
Leach Batch: N/A

Instrument ID: CPESTGC4
Lab File ID: P4202894.D
Initial Weight/Volume: +15.0119 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: SECONDARY

MSD Lab Sample ID: 460-130404-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/29/2017 1301
Prep Date: 03/29/2017 0210
Leach Date: N/A

Analysis Batch: 460-426902
Prep Batch: 460-426820
Leach Batch: N/A

Instrument ID: CPESTGC4
Lab File ID: P4202895.D
Initial Weight/Volume: +15.0085 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: SECONDARY

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------|----------|-----|-----------|-------------------|-----------|---------|----------|
| | MS | MSD | | | | | |
| 4,4'-DDD | 74 | 71 | 64 - 129 | 4 | 30 | | |
| 4,4'-DDE | 76 | 73 | 65 - 129 | 4 | 30 | | |
| 4,4'-DDT | 73 | 70 | 59 - 124 | 4 | 30 | | |
| Aldrin | 75 | 72 | 66 - 127 | 5 | 30 | | |
| alpha-BHC | 77 | 72 | 69 - 131 | 7 | 30 | | |
| beta-BHC | 83 | 77 | 69 - 127 | 6 | 30 | | |
| delta-BHC | 77 | 74 | 64 - 129 | 4 | 30 | | |
| Dieldrin | 79 | 75 | 65 - 128 | 5 | 30 | | |
| Endosulfan I | 77 | 73 | 66 - 126 | 5 | 30 | | |
| Endosulfan II | 78 | 74 | 64 - 124 | 4 | 30 | | |
| Endosulfan sulfate | 74 | 69 | 62 - 123 | 6 | 30 | | |
| Endrin | 75 | 72 | 58 - 126 | 4 | 30 | | |
| Endrin aldehyde | 74 | 71 | 69 - 131 | 4 | 30 | | |
| Endrin ketone | 79 | 75 | 62 - 125 | 5 | 30 | | |
| gamma-BHC (Lindane) | 76 | 72 | 67 - 126 | 5 | 30 | | |
| Heptachlor | 77 | 74 | 63 - 125 | 4 | 30 | | |
| Heptachlor epoxide | 74 | 70 | 64 - 125 | 6 | 30 | | |
| Methoxychlor | 77 | 76 | 56 - 123 | 2 | 30 | | |
| Surrogate | MS % Rec | | MSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 90 | | 92 | 50 - 150 | | | |
| Tetrachloro-m-xylene | 88 | | 95 | 47 - 150 | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-426997

**Method: 8081B
Preparation: 3510C**

Lab Sample ID: MB 460-426997/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/30/2017 1126
 Prep Date: 03/29/2017 1947
 Leach Date: N/A

Analysis Batch: 460-427093
 Prep Batch: 460-426997
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CPESTGC5
 Lab File ID: 5F008401.D
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|-----------------------|--------|------|--------|-------|
| 4,4'-DDD | 0.020 | U | 0.0050 | 0.020 |
| 4,4'-DDE | 0.020 | U | 0.0040 | 0.020 |
| 4,4'-DDT | 0.020 | U | 0.0040 | 0.020 |
| Aldrin | 0.020 | U | 0.0040 | 0.020 |
| alpha-BHC | 0.020 | U | 0.0060 | 0.020 |
| beta-BHC | 0.020 | U | 0.0050 | 0.020 |
| Chlordane (technical) | 0.50 | U | 0.13 | 0.50 |
| delta-BHC | 0.020 | U | 0.0060 | 0.020 |
| Dieldrin | 0.020 | U | 0.0040 | 0.020 |
| Endosulfan I | 0.020 | U | 0.0050 | 0.020 |
| Endosulfan II | 0.020 | U | 0.0040 | 0.020 |
| Endosulfan sulfate | 0.020 | U | 0.0050 | 0.020 |
| Endrin | 0.020 | U | 0.0040 | 0.020 |
| Endrin aldehyde | 0.020 | U | 0.0040 | 0.020 |
| Endrin ketone | 0.020 | U | 0.0040 | 0.020 |
| gamma-BHC (Lindane) | 0.020 | U | 0.0040 | 0.020 |
| Heptachlor | 0.020 | U | 0.0040 | 0.020 |
| Heptachlor epoxide | 0.020 | U | 0.0040 | 0.020 |
| Methoxychlor | 0.020 | U | 0.0040 | 0.020 |
| Toxaphene | 0.50 | U | 0.060 | 0.50 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 100 | 10 - 150 |
| Tetrachloro-m-xylene | 82 | 16 - 150 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 95 | 10 - 150 |
| Tetrachloro-m-xylene | 79 | 16 - 150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-426997

Method: 8081B

Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-426997/2-A | Analysis Batch: 460-427093 | Instrument ID: CPESTGC5 |
| Client Matrix: Water | Prep Batch: 460-426997 | Lab File ID: 5F008402.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 1139 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1947 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-426997/3-A | Analysis Batch: 460-427093 | Instrument ID: CPESTGC5 |
| Client Matrix: Water | Prep Batch: 460-426997 | Lab File ID: 5F008403.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 1152 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1947 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------|-----------|------------|-------------------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 4,4'-DDD | 124 | 121 | 66 - 150 | 2 | 30 | | |
| 4,4'-DDE | 123 | 121 | 67 - 150 | 2 | 30 | | |
| 4,4'-DDT | 113 | 111 | 62 - 150 | 1 | 30 | | |
| Aldrin | 109 | 108 | 48 - 144 | 1 | 30 | | |
| alpha-BHC | 115 | 113 | 68 - 150 | 1 | 30 | | |
| beta-BHC | 117 | 115 | 71 - 150 | 2 | 30 | | |
| delta-BHC | 109 | 108 | 58 - 150 | 1 | 30 | | |
| Dieldrin | 127 | 125 | 68 - 150 | 1 | 30 | | |
| Endosulfan I | 126 | 124 | 68 - 150 | 1 | 30 | | |
| Endosulfan II | 125 | 123 | 66 - 150 | 1 | 30 | | |
| Endosulfan sulfate | 118 | 115 | 64 - 150 | 3 | 30 | | |
| Endrin | 124 | 122 | 61 - 150 | 2 | 30 | | |
| Endrin aldehyde | 119 | 117 | 70 - 150 | 1 | 30 | | |
| Endrin ketone | 143 | 140 | 66 - 150 | 2 | 30 | | |
| gamma-BHC (Lindane) | 115 | 113 | 67 - 150 | 2 | 30 | | |
| Heptachlor | 108 | 108 | 53 - 145 | 0 | 30 | | |
| Heptachlor epoxide | 119 | 119 | 66 - 150 | 0 | 30 | | |
| Methoxychlor | 118 | 116 | 62 - 150 | 2 | 30 | | |
| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits | | | | |
| DCB Decachlorobiphenyl | 74 | 73 | 10 - 150 | | | | |
| Tetrachloro-m-xylene | 84 | 85 | 16 - 150 | | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-426997

Method: 8081B

Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-426997/2-A | Analysis Batch: 460-427093 | Instrument ID: CPESTGC5 |
| Client Matrix: Water | Prep Batch: 460-426997 | Lab File ID: 5F008402.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 1139 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1947 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-426997/3-A | Analysis Batch: 460-427093 | Instrument ID: CPESTGC5 |
| Client Matrix: Water | Prep Batch: 460-426997 | Lab File ID: 5F008403.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 1152 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1947 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------|--------|-----------|------------|-----|-------------------|----------|-----------|
| | LCS | LCSD | | | | | |
| 4,4'-DDD | 107 | 107 | 66 - 150 | 0 | 30 | | |
| 4,4'-DDE | 103 | 103 | 67 - 150 | 1 | 30 | | |
| 4,4'-DDT | 103 | 103 | 62 - 150 | 0 | 30 | | |
| Aldrin | 107 | 107 | 48 - 144 | 0 | 30 | | |
| alpha-BHC | 111 | 111 | 68 - 150 | 0 | 30 | | |
| beta-BHC | 114 | 113 | 71 - 150 | 1 | 30 | | |
| delta-BHC | 108 | 107 | 58 - 150 | 1 | 30 | | |
| Dieldrin | 113 | 113 | 68 - 150 | 0 | 30 | | |
| Endosulfan I | 118 | 117 | 68 - 150 | 0 | 30 | | |
| Endosulfan II | 115 | 116 | 66 - 150 | 1 | 30 | | |
| Endosulfan sulfate | 109 | 108 | 64 - 150 | 1 | 30 | | |
| Endrin | 109 | 110 | 61 - 150 | 0 | 30 | | |
| Endrin aldehyde | 114 | 114 | 70 - 150 | 0 | 30 | | |
| Endrin ketone | 124 | 122 | 66 - 150 | 2 | 30 | | |
| gamma-BHC (Lindane) | 110 | 111 | 67 - 150 | 0 | 30 | | |
| Heptachlor | 108 | 107 | 53 - 145 | 1 | 30 | | |
| Heptachlor epoxide | 112 | 113 | 66 - 150 | 0 | 30 | | |
| Methoxychlor | 102 | 101 | 62 - 150 | 1 | 30 | | |
| Surrogate | | LCS % Rec | LCSD % Rec | | Acceptance Limits | | |
| DCB Decachlorobiphenyl | | 70 | 71 | | 10 - 150 | | |
| Tetrachloro-m-xylene | | 84 | 82 | | 16 - 150 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-426822

**Method: 8082A
Preparation: 3546**

Lab Sample ID: MB 460-426822/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/29/2017 1434
 Prep Date: 03/29/2017 0221
 Leach Date: N/A

Analysis Batch: 460-426943
 Prep Batch: 460-426822
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CPESTGC7
 Lab File ID: 7R002770.D
 Initial Weight/Volume: +15.0000 g
 Final Weight/Volume: 10 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|----------------------------------|--------|------|-----|----|
| Aroclor 1016 | 67 | U | 8.9 | 67 |
| Aroclor 1221 | 67 | U | 8.9 | 67 |
| Aroclor 1232 | 67 | U | 8.9 | 67 |
| Aroclor 1242 | 67 | U | 8.9 | 67 |
| Aroclor 1248 | 67 | U | 8.9 | 67 |
| Aroclor 1254 | 67 | U | 9.2 | 67 |
| Aroclor 1260 | 67 | U | 9.2 | 67 |
| Aroclor 1268 | 67 | U | 9.2 | 67 |
| Aroclor-1262 | 67 | U | 9.2 | 67 |
| Polychlorinated biphenyls, Total | 67 | U | 9.2 | 67 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 115 | 35 - 150 |
| Surrogate | % Rec | Acceptance Limits |
| DCB Decachlorobiphenyl | 113 | 35 - 150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample - Batch: 460-426822

Method: 8082A
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|-----------------------------------|
| Lab Sample ID: LCS 460-426822/2-A | Analysis Batch: 460-426943 | Instrument ID: CPESTGC7 |
| Client Matrix: Solid | Prep Batch: 460-426822 | Lab File ID: 7R002771.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0000 g |
| Analysis Date: 03/29/2017 1458 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/29/2017 0221 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|-------------------|----------|------|
| Aroclor 1016 | 333 | 367 | 110 | 77 - 150 | |
| Aroclor 1260 | 333 | 365 | 110 | 79 - 150 | |
| Surrogate | | % Rec | Acceptance Limits | | |
| DCB Decachlorobiphenyl | | 129 | 35 - 150 | | |

Lab Control Sample - Batch: 460-426822

Method: 8082A
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|-----------------------------------|
| Lab Sample ID: LCS 460-426822/2-A | Analysis Batch: 460-426943 | Instrument ID: CPESTGC7 |
| Client Matrix: Solid | Prep Batch: 460-426822 | Lab File ID: 7R002771.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0000 g |
| Analysis Date: 03/29/2017 1458 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/29/2017 0221 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|-------------------|----------|------|
| Aroclor 1016 | 333 | 356 | 107 | 77 - 150 | |
| Aroclor 1260 | 333 | 366 | 110 | 79 - 150 | |
| Surrogate | | % Rec | Acceptance Limits | | |
| DCB Decachlorobiphenyl | | 123 | 35 - 150 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-426822**

**Method: 8082A
Preparation: 3546**

MS Lab Sample ID: 460-130404-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/29/2017 1545
Prep Date: 03/29/2017 0221
Leach Date: N/A

Analysis Batch: 460-426943
Prep Batch: 460-426822
Leach Batch: N/A

Instrument ID: CPESTGC7
Lab File ID: 7R002773.D
Initial Weight/Volume: +14.9997 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

MSD Lab Sample ID: 460-130404-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/29/2017 1608
Prep Date: 03/29/2017 0221
Leach Date: N/A

Analysis Batch: 460-426943
Prep Batch: 460-426822
Leach Batch: N/A

Instrument ID: CPESTGC7
Lab File ID: 7R002774.D
Initial Weight/Volume: +15.0031 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------|----------|-----|-----------|-------------------|-----------|---------|----------|
| | MS | MSD | | | | | |
| Aroclor 1016 | 101 | 105 | 77 - 150 | 3 | 30 | | |
| Aroclor 1260 | 101 | 104 | 79 - 150 | 3 | 30 | | |
| Surrogate | MS % Rec | | MSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 116 | | 117 | 35 - 150 | | | |

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-426822**

**Method: 8082A
Preparation: 3546**

MS Lab Sample ID: 460-130404-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/29/2017 1545
Prep Date: 03/29/2017 0221
Leach Date: N/A

Analysis Batch: 460-426943
Prep Batch: 460-426822
Leach Batch: N/A

Instrument ID: CPESTGC7
Lab File ID: 7R002773.D
Initial Weight/Volume: +14.9997 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: SECONDARY

MSD Lab Sample ID: 460-130404-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/29/2017 1608
Prep Date: 03/29/2017 0221
Leach Date: N/A

Analysis Batch: 460-426943
Prep Batch: 460-426822
Leach Batch: N/A

Instrument ID: CPESTGC7
Lab File ID: 7R002774.D
Initial Weight/Volume: +15.0031 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: SECONDARY

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------|----------|-----|-----------|-------------------|-----------|---------|----------|
| | MS | MSD | | | | | |
| Aroclor 1016 | 97 | 101 | 77 - 150 | 4 | 30 | | |
| Aroclor 1260 | 100 | 103 | 79 - 150 | 3 | 30 | | |
| Surrogate | MS % Rec | | MSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 115 | | 117 | 35 - 150 | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-426998

**Method: 8082A
Preparation: 3510C**

Lab Sample ID: MB 460-426998/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/30/2017 1251
 Prep Date: 03/29/2017 1950
 Leach Date: N/A

Analysis Batch: 460-427113
 Prep Batch: 460-426998
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CPESTGC8
 Lab File ID: 8F018862.D
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|----------------------------------|--------|------|-------|------|
| Aroclor 1016 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1221 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1232 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1242 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1248 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1254 | 0.40 | U | 0.084 | 0.40 |
| Aroclor 1260 | 0.40 | U | 0.084 | 0.40 |
| Aroclor 1268 | 0.40 | U | 0.084 | 0.40 |
| Aroclor-1262 | 0.40 | U | 0.084 | 0.40 |
| Polychlorinated biphenyls, Total | 0.40 | U | 0.098 | 0.40 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 70 | 10 - 150 |
| Surrogate | % Rec | Acceptance Limits |
| DCB Decachlorobiphenyl | 63 | 10 - 150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-426998 **Method: 8082A**
Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-426998/2-A | Analysis Batch: 460-427113 | Instrument ID: CPESTGC8 |
| Client Matrix: Water | Prep Batch: 460-426998 | Lab File ID: 8F018864.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 1313 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1950 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-426998/3-A | Analysis Batch: 460-427113 | Instrument ID: CPESTGC8 |
| Client Matrix: Water | Prep Batch: 460-426998 | Lab File ID: 8F018865.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 1330 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1950 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------|-----------|------|------------|-------------------|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Aroclor 1016 | 124 | 119 | 77 - 150 | 4 | 30 | | |
| Aroclor 1260 | 146 | 145 | 80 - 150 | 1 | 30 | | |
| Surrogate | LCS % Rec | | LCSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 67 | | 68 | 10 - 150 | | | |

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-426998 **Method: 8082A**
Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-426998/2-A | Analysis Batch: 460-427113 | Instrument ID: CPESTGC8 |
| Client Matrix: Water | Prep Batch: 460-426998 | Lab File ID: 8F018864.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 1313 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1950 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-426998/3-A | Analysis Batch: 460-427113 | Instrument ID: CPESTGC8 |
| Client Matrix: Water | Prep Batch: 460-426998 | Lab File ID: 8F018865.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 1330 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1950 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------|-----------|------|------------|-------------------|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Aroclor 1016 | 119 | 114 | 77 - 150 | 4 | 30 | | |
| Aroclor 1260 | 134 | 131 | 80 - 150 | 3 | 30 | | |
| Surrogate | LCS % Rec | | LCSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 66 | | 63 | 10 - 150 | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-427091

Method: 6010C
Preparation: 3050B

| | | | | | |
|----------------|----------------------|-----------------|------------|------------------------|--------------|
| Lab Sample ID: | MB 460-427091/1-A ^2 | Analysis Batch: | 460-427224 | Instrument ID: | ICP5 |
| Client Matrix: | Solid | Prep Batch: | 460-427091 | Lab File ID: | 427090D1.asc |
| Dilution: | 2.0 | Leach Batch: | N/A | Initial Weight/Volume: | 1.00 g |
| Analysis Date: | 03/30/2017 1529 | Units: | mg/Kg | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/30/2017 0737 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|-----------|--------|------|------|------|
| Aluminum | 20.0 | U | 10.3 | 20.0 |
| Antimony | 2.0 | U | 0.79 | 2.0 |
| Arsenic | 1.5 | U | 0.49 | 1.5 |
| Barium | 20.0 | U | 0.72 | 20.0 |
| Beryllium | 0.20 | U | 0.17 | 0.20 |
| Cadmium | 0.40 | U | 0.21 | 0.40 |
| Calcium | 500 | U | 29.6 | 500 |
| Chromium | 1.0 | U | 0.48 | 1.0 |
| Cobalt | 5.0 | U | 0.58 | 5.0 |
| Copper | 2.5 | U | 0.65 | 2.5 |
| Iron | 15.0 | U | 11.3 | 15.0 |
| Lead | 1.0 | U | 0.39 | 1.0 |
| Magnesium | 500 | U | 25.0 | 500 |
| Manganese | 1.5 | U | 0.53 | 1.5 |
| Nickel | 4.0 | U | 0.73 | 4.0 |
| Potassium | 500 | U | 15.2 | 500 |
| Selenium | 2.0 | U | 0.69 | 2.0 |
| Silver | 1.0 | U | 0.18 | 1.0 |
| Sodium | 500 | U | 33.9 | 500 |
| Thallium | 2.0 | U | 0.89 | 2.0 |
| Vanadium | 5.0 | U | 0.50 | 5.0 |
| Zinc | 3.0 | U | 0.73 | 3.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

LCS-Certified Reference Material - Batch: 460-427091

**Method: 6010C
Preparation: 3050B**

| | | | | | |
|----------------|-----------------------------------|-----------------|------------|------------------------|--------------|
| Lab Sample ID: | LCSSRM 460-427091/2- A | Analysis Batch: | 460-427224 | Instrument ID: | ICP5 |
| Client Matrix: | Solid | Prep Batch: | 460-427091 | Lab File ID: | 427090D1.asc |
| Dilution: | 4.0 | Leach Batch: | N/A | Initial Weight/Volume: | 1.00 g |
| Analysis Date: | 03/30/2017 1533 | Units: | mg/Kg | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/30/2017 0737 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|--------------|------|
| Aluminum | 8080 | 5886 | 72.8 | 49.4 - 151.0 | |
| Antimony | 88.2 | 158.1 | 179.2 | 2.2 - 197.3 | |
| Arsenic | 57.0 | 59.38 | 104.2 | 75.1 - 124.9 | |
| Barium | 110 | 112.0 | 101.9 | 82.4 - 118.2 | |
| Beryllium | 67.5 | 70.80 | 104.9 | 82.8 - 117.2 | |
| Cadmium | 77.8 | 82.92 | 106.6 | 82.8 - 117.2 | |
| Calcium | 6450 | 6454 | 100.1 | 82.2 - 117.7 | |
| Chromium | 65.0 | 69.14 | 106.4 | 79.1 - 121.1 | |
| Cobalt | 58.8 | 63.86 | 108.6 | 83.8 - 116.3 | |
| Copper | 56.4 | 57.44 | 101.8 | 80.5 - 119.7 | |
| Iron | 14700 | 14000 | 95.2 | 45.6 - 154.4 | |
| Lead | 85.6 | 89.20 | 104.2 | 82.0 - 118.0 | |
| Magnesium | 2710 | 2348 | 86.6 | 75.6 - 124.0 | |
| Manganese | 273 | 308.4 | 113.0 | 81.0 - 118.7 | |
| Nickel | 61.3 | 66.90 | 109.1 | 82.5 - 117.5 | |
| Potassium | 2420 | 1891 | 78.2 | 69.4 - 131.0 | |
| Selenium | 78.9 | 83.76 | 106.2 | 77.6 - 122.4 | |
| Silver | 54.2 | 53.90 | 99.4 | 74.7 - 125.3 | |
| Sodium | 914 | 861.8 | 94.3 | 71.6 - 128.0 | J |
| Vanadium | 56.3 | 57.22 | 101.6 | 77.1 - 122.9 | |
| Zinc | 198 | 211.2 | 106.7 | 82.3 - 117.2 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Matrix Spike - Batch: 460-427091

**Method: 6010C
Preparation: 3050B**

Lab Sample ID: 460-130404-1
 Client Matrix: Solid
 Dilution: 4.0
 Analysis Date: 03/30/2017 1502
 Prep Date: 03/30/2017 0737
 Leach Date: N/A

Analysis Batch: 460-427224
 Prep Batch: 460-427091
 Leach Batch: N/A
 Units: mg/Kg

Instrument ID: ICP5
 Lab File ID: 427090D1.asc
 Initial Weight/Volume: 1.00 g
 Final Weight/Volume: 50 mL

| Analyte | Sample | Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------|-------------|--------------|--------|--------|----------|------|
| Aluminum | 10800 | | 238 | 8204 | -1080 | 75 - 125 | 4 |
| Antimony | 4.8 | U | 59.5 | 55.05 | 92 | 75 - 125 | |
| Arsenic | 2.7 | J | 238 | 232.2 | 96 | 75 - 125 | |
| Barium | 94.6 | | 238 | 304.4 | 88 | 75 - 125 | |
| Beryllium | 0.45 | J | 5.95 | 6.29 | 98 | 75 - 125 | |
| Cadmium | 0.95 | U | 5.95 | 5.78 | 97 | 75 - 125 | |
| Calcium | 5460 | | 2380 | 6755 | 54 | 75 - 125 | N |
| Chromium | 24.8 | | 23.8 | 42.21 | 73 | 75 - 125 | N |
| Cobalt | 8.5 | J | 59.5 | 66.31 | 97 | 75 - 125 | |
| Copper | 34.0 | | 29.8 | 53.43 | 65 | 75 - 125 | N |
| Iron | 20900 | | 119 | 18430 | -2036 | 75 - 125 | 4 |
| Lead | 45.0 | | 59.5 | 85.77 | 68 | 75 - 125 | N |
| Magnesium | 4000 | | 2380 | 5417 | 60 | 75 - 125 | N |
| Manganese | 403 | | 59.5 | 354.4 | -81 | 75 - 125 | 4 |
| Nickel | 17.8 | | 59.5 | 73.39 | 93 | 75 - 125 | |
| Potassium | 2150 | | 2380 | 3787 | 69 | 75 - 125 | N |
| Selenium | 4.8 | U | 238 | 224.4 | 94 | 75 - 125 | |
| Silver | 2.4 | U | 5.95 | 5.24 | 88 | 75 - 125 | |
| Sodium | 109 | J | 2380 | 2309 | 92 | 75 - 125 | |
| Thallium | 4.8 | U | 238 | 257.0 | 108 | 75 - 125 | |
| Vanadium | 27.1 | | 59.5 | 86.30 | 99 | 75 - 125 | |
| Zinc | 66.4 | | 59.5 | 112.8 | 78 | 75 - 125 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Duplicate - Batch: 460-427091

**Method: 6010C
Preparation: 3050B**

Lab Sample ID: 460-130404-1
 Client Matrix: Solid
 Dilution: 4.0
 Analysis Date: 03/30/2017 1506
 Prep Date: 03/30/2017 0737
 Leach Date: N/A

Analysis Batch: 460-427224
 Prep Batch: 460-427091
 Leach Batch: N/A
 Units: mg/Kg

Instrument ID: ICP5
 Lab File ID: 427090D1.asc
 Initial Weight/Volume: 1.00 g
 Final Weight/Volume: 50 mL

| Analyte | Sample | Result/Qual | Result | RPD | Limit | Qual |
|-----------|--------|-------------|--------|-----|-------|------|
| Aluminum | 10800 | | 8937 | 19 | 20 | |
| Antimony | 4.8 | U | 4.8 | NC | 20 | U |
| Arsenic | 2.7 | J | 1.85 | 36 | 20 | J |
| Barium | 94.6 | | 72.82 | 26 | 20 | |
| Beryllium | 0.45 | J | 0.48 | NC | 20 | U |
| Cadmium | 0.95 | U | 0.95 | NC | 20 | U |
| Calcium | 5460 | | 5200 | 5 | 20 | |
| Chromium | 24.8 | | 20.67 | 18 | 20 | |
| Cobalt | 8.5 | J | 7.22 | 16 | 20 | J |
| Copper | 34.0 | | 27.44 | 21 | 20 | * |
| Iron | 20900 | | 16590 | 23 | 20 | * |
| Lead | 45.0 | | 34.25 | 27 | 20 | * |
| Magnesium | 4000 | | 3711 | 7 | 20 | |
| Manganese | 403 | | 296.3 | 30 | 20 | * |
| Nickel | 17.8 | | 15.36 | 15 | 20 | |
| Potassium | 2150 | | 1958 | 9 | 20 | |
| Selenium | 4.8 | U | 4.8 | NC | 20 | U |
| Silver | 2.4 | U | 2.4 | NC | 20 | U |
| Sodium | 109 | J | 97.11 | 12 | 20 | J |
| Thallium | 4.8 | U | 4.8 | NC | 20 | U N |
| Vanadium | 27.1 | | 22.19 | 20 | 20 | |
| Zinc | 66.4 | | 54.55 | 20 | 20 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-427422

Method: 6020A
Preparation: 3010A

Lab Sample ID: MB 460-427422/1-A ^2
Client Matrix: Water
Dilution: 2.0
Analysis Date: 03/31/2017 2156
Prep Date: 03/31/2017 1157
Leach Date: N/A

Analysis Batch: 460-427617
Prep Batch: 460-427422
Leach Batch: N/A
Units: ug/L

Instrument ID: ICPMS3
Lab File ID: 063SMPL.d
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

| Analyte | Result | Qual | MDL | RL |
|-----------|--------|------|------|------|
| Aluminum | 40.0 | U | 18.2 | 40.0 |
| Antimony | 2.0 | U | 0.62 | 2.0 |
| Arsenic | 2.0 | U | 0.64 | 2.0 |
| Barium | 4.0 | U | 1.2 | 4.0 |
| Beryllium | 0.80 | U | 0.24 | 0.80 |
| Cadmium | 2.0 | U | 0.71 | 2.0 |
| Calcium | 200 | U | 60.5 | 200 |
| Chromium | 4.0 | U | 1.3 | 4.0 |
| Cobalt | 4.0 | U | 1.3 | 4.0 |
| Copper | 4.0 | U | 1.4 | 4.0 |
| Iron | 120 | U | 42.4 | 120 |
| Lead | 1.2 | U | 0.38 | 1.2 |
| Magnesium | 200 | U | 63.6 | 200 |
| Manganese | 8.0 | U | 2.5 | 8.0 |
| Nickel | 4.0 | U | 1.4 | 4.0 |
| Potassium | 200 | U | 91.4 | 200 |
| Selenium | 10.0 | U | 0.73 | 10.0 |
| Silver | 2.0 | U | 1.3 | 2.0 |
| Sodium | 200 | U | 69.0 | 200 |
| Thallium | 0.80 | U | 0.26 | 0.80 |
| Vanadium | 4.0 | U | 1.9 | 4.0 |
| Zinc | 16.0 | U | 7.0 | 16.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample - Batch: 460-427422

Method: 6020A
Preparation: 3010A

| | | | | | |
|----------------|-----------------------|-----------------|------------|------------------------|-----------|
| Lab Sample ID: | LCS 460-427422/2-A ^2 | Analysis Batch: | 460-427617 | Instrument ID: | ICPMS3 |
| Client Matrix: | Water | Prep Batch: | 460-427422 | Lab File ID: | 064SMPL.d |
| Dilution: | 2.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 03/31/2017 2158 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/31/2017 1157 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|----------|------|
| Aluminum | 2500 | 2460 | 98 | 80 - 120 | |
| Antimony | 25.0 | 25.73 | 103 | 80 - 120 | |
| Arsenic | 50.0 | 50.56 | 101 | 80 - 120 | |
| Barium | 50.0 | 50.50 | 101 | 80 - 120 | |
| Beryllium | 25.0 | 25.69 | 103 | 80 - 120 | |
| Cadmium | 25.0 | 25.68 | 103 | 80 - 120 | |
| Calcium | 2500 | 2675 | 107 | 80 - 120 | |
| Chromium | 50.0 | 51.62 | 103 | 80 - 120 | |
| Cobalt | 25.0 | 26.04 | 104 | 80 - 120 | |
| Copper | 50.0 | 51.86 | 104 | 80 - 120 | |
| Iron | 2500 | 2460 | 98 | 80 - 120 | |
| Lead | 25.0 | 25.22 | 101 | 80 - 120 | |
| Magnesium | 2500 | 2593 | 104 | 80 - 120 | |
| Manganese | 250 | 259.0 | 104 | 80 - 120 | |
| Nickel | 50.0 | 51.59 | 103 | 80 - 120 | |
| Potassium | 2500 | 2554 | 102 | 80 - 120 | |
| Selenium | 50.0 | 49.93 | 100 | 80 - 120 | |
| Silver | 25.0 | 20.03 | 80 | 80 - 120 | |
| Sodium | 2500 | 2642 | 106 | 80 - 120 | |
| Thallium | 20.0 | 20.13 | 101 | 80 - 120 | |
| Vanadium | 50.0 | 50.84 | 102 | 80 - 120 | |
| Zinc | 250 | 255.3 | 102 | 80 - 120 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Matrix Spike - Batch: 460-427422

**Method: 6020A
Preparation: 3010A**

Lab Sample ID: 460-130404-6
 Client Matrix: Water
 Dilution: 2.0
 Analysis Date: 03/31/2017 2203
 Prep Date: 03/31/2017 1157
 Leach Date: N/A

Analysis Batch: 460-427617
 Prep Batch: 460-427422
 Leach Batch: N/A
 Units: ug/L

Instrument ID: ICPMS3
 Lab File ID: 066SMPL.d
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

| Analyte | Sample | Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------|-------------|--------------|--------|--------|----------|------|
| Aluminum | 783 | | 2500 | 3095 | 92 | 75 - 125 | |
| Antimony | 2.0 | U | 25.0 | 25.24 | 101 | 75 - 125 | |
| Arsenic | 0.71 | J | 50.0 | 44.04 | 87 | 75 - 125 | |
| Barium | 77.3 | | 50.0 | 128.2 | 102 | 75 - 125 | |
| Beryllium | 0.80 | U | 25.0 | 25.14 | 101 | 75 - 125 | |
| Cadmium | 2.0 | U | 25.0 | 24.85 | 99 | 75 - 125 | |
| Calcium | 99700 | | 2500 | 103100 | 133 | 75 - 125 | 4 |
| Chromium | 4.5 | | 50.0 | 53.91 | 99 | 75 - 125 | |
| Cobalt | 4.9 | | 25.0 | 29.85 | 100 | 75 - 125 | |
| Copper | 6.4 | | 50.0 | 55.52 | 98 | 75 - 125 | |
| Iron | 1520 | | 2500 | 3858 | 93 | 75 - 125 | |
| Lead | 1.8 | | 25.0 | 26.53 | 99 | 75 - 125 | |
| Magnesium | 34700 | | 2500 | 37660 | 119 | 75 - 125 | 4 |
| Manganese | 2530 | | 250 | 2806 | 111 | 75 - 125 | 4 |
| Nickel | 11.2 | | 50.0 | 60.62 | 99 | 75 - 125 | |
| Potassium | 11800 | | 2500 | 14350 | 103 | 75 - 125 | 4 |
| Selenium | 10.0 | U | 50.0 | 43.93 | 88 | 75 - 125 | |
| Silver | 2.0 | U | 25.0 | 19.80 | 79 | 75 - 125 | |
| Sodium | 111000 | | 2500 | 114600 | 157 | 75 - 125 | 4 |
| Thallium | 0.80 | U | 20.0 | 20.03 | 100 | 75 - 125 | |
| Vanadium | 3.9 | J | 50.0 | 52.65 | 97 | 75 - 125 | |
| Zinc | 9.7 | J | 250 | 251.3 | 97 | 75 - 125 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Duplicate - Batch: 460-427422

Method: 6020A
Preparation: 3010A

Lab Sample ID: 460-130404-6
 Client Matrix: Water
 Dilution: 2.0
 Analysis Date: 03/31/2017 2206
 Prep Date: 03/31/2017 1157
 Leach Date: N/A

Analysis Batch: 460-427617
 Prep Batch: 460-427422
 Leach Batch: N/A
 Units: ug/L

Instrument ID: ICPMS3
 Lab File ID: 067SMPL.d
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|-----------|--------------------|--------|-----|-------|------|
| Aluminum | 783 | 829.6 | 6 | 20 | |
| Antimony | 2.0 U | 2.0 | NC | 20 | U |
| Arsenic | 0.71 J | 0.766 | 7 | 20 | J |
| Barium | 77.3 | 76.28 | 1 | 20 | |
| Beryllium | 0.80 U | 0.80 | NC | 20 | U |
| Cadmium | 2.0 U | 2.0 | NC | 20 | U |
| Calcium | 99700 | 98270 | 1 | 20 | |
| Chromium | 4.5 | 4.34 | 3 | 20 | |
| Cobalt | 4.9 | 4.96 | 0.8 | 20 | |
| Copper | 6.4 | 7.60 | 17 | 20 | |
| Iron | 1520 | 1510 | 0.8 | 20 | |
| Lead | 1.8 | 1.80 | 1 | 20 | |
| Magnesium | 34700 | 34640 | 0.1 | 20 | |
| Manganese | 2530 | 2507 | 0.8 | 20 | |
| Nickel | 11.2 | 11.18 | 0.3 | 20 | |
| Potassium | 11800 | 11640 | 1 | 20 | |
| Selenium | 10.0 U | 10.0 | NC | 20 | U |
| Silver | 2.0 U | 2.0 | NC | 20 | U |
| Sodium | 111000 | 109700 | 0.9 | 20 | |
| Thallium | 0.80 U | 0.80 | NC | 20 | U |
| Vanadium | 3.9 J | 3.82 | 2 | 20 | J |
| Zinc | 9.7 J | 10.07 | 4 | 20 | J |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-427425

**Method: 6020A
Preparation: 3010A**

Lab Sample ID: MB 460-427425/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/31/2017 2124
 Prep Date: 03/31/2017 1215
 Leach Date: N/A

Analysis Batch: 460-427617
 Prep Batch: 460-427425
 Leach Batch: N/A
 Units: ug/L

Instrument ID: ICPMS3
 Lab File ID: 050SMPL.d
 Initial Weight/Volume: 10 mL
 Final Weight/Volume: 10 mL

| Analyte | Result | Qual | MDL | RL |
|-----------|--------|------|------|------|
| Aluminum | 20.0 | U | 9.1 | 20.0 |
| Antimony | 1.0 | U | 0.31 | 1.0 |
| Arsenic | 1.0 | U | 0.32 | 1.0 |
| Barium | 2.0 | U | 0.61 | 2.0 |
| Beryllium | 0.40 | U | 0.12 | 0.40 |
| Cadmium | 1.0 | U | 0.36 | 1.0 |
| Calcium | 100 | U | 30.3 | 100 |
| Chromium | 2.0 | U | 0.66 | 2.0 |
| Cobalt | 2.0 | U | 0.65 | 2.0 |
| Copper | 2.0 | U | 0.68 | 2.0 |
| Lead | 0.60 | U | 0.19 | 0.60 |
| Magnesium | 100 | U | 31.8 | 100 |
| Manganese | 4.0 | U | 1.2 | 4.0 |
| Nickel | 2.0 | U | 0.68 | 2.0 |
| Potassium | 100 | U | 45.7 | 100 |
| Selenium | 5.0 | U | 0.37 | 5.0 |
| Silver | 1.0 | U | 0.64 | 1.0 |
| Sodium | 100 | U | 34.5 | 100 |
| Thallium | 0.40 | U | 0.13 | 0.40 |
| Vanadium | 2.0 | U | 0.95 | 2.0 |
| Zinc | 8.0 | U | 3.5 | 8.0 |

Method Blank - Batch: 460-427425

**Method: 6020A
Preparation: 3010A**

Lab Sample ID: MB 460-427425/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/01/2017 1418
 Prep Date: 03/31/2017 1215
 Leach Date: N/A

Analysis Batch: 460-427660
 Prep Batch: 460-427425
 Leach Batch: N/A
 Units: ug/L

Instrument ID: ICPMS3
 Lab File ID: 023SMPL.d
 Initial Weight/Volume: 10 mL
 Final Weight/Volume: 10 mL

| Analyte | Result | Qual | MDL | RL |
|---------|--------|------|------|------|
| Iron | 60.0 | U | 21.2 | 60.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Lab Control Sample - Batch: 460-427425

**Method: 6020A
Preparation: 3010A**

| | | |
|-----------------------------------|----------------------------|------------------------------|
| Lab Sample ID: LCS 460-427425/2-A | Analysis Batch: 460-427617 | Instrument ID: ICPMS3 |
| Client Matrix: Water | Prep Batch: 460-427425 | Lab File ID: 051SMPL.d |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 10 mL |
| Analysis Date: 03/31/2017 2126 | Units: ug/L | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1215 | | |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|----------|------|
| Aluminum | 500 | 540.8 | 108 | 80 - 120 | |
| Antimony | 5.00 | 5.30 | 106 | 80 - 120 | |
| Arsenic | 10.0 | 11.36 | 114 | 80 - 120 | |
| Barium | 10.0 | 10.90 | 109 | 80 - 120 | |
| Beryllium | 5.00 | 5.39 | 108 | 80 - 120 | |
| Cadmium | 5.00 | 5.52 | 110 | 80 - 120 | |
| Calcium | 500 | 577.0 | 115 | 80 - 120 | |
| Chromium | 10.0 | 10.89 | 109 | 80 - 120 | |
| Cobalt | 5.00 | 5.48 | 110 | 80 - 120 | |
| Copper | 10.0 | 10.88 | 109 | 80 - 120 | |
| Lead | 5.00 | 5.37 | 107 | 80 - 120 | |
| Magnesium | 500 | 558.5 | 112 | 80 - 120 | |
| Manganese | 50.0 | 55.48 | 111 | 80 - 120 | |
| Nickel | 10.0 | 10.90 | 109 | 80 - 120 | |
| Potassium | 500 | 563.2 | 113 | 80 - 120 | |
| Selenium | 10.0 | 11.23 | 112 | 80 - 120 | |
| Silver | 5.00 | 5.50 | 110 | 80 - 120 | |
| Sodium | 500 | 562.4 | 112 | 80 - 120 | |
| Thallium | 4.00 | 4.27 | 107 | 80 - 120 | |
| Vanadium | 10.0 | 10.64 | 106 | 80 - 120 | |
| Zinc | 50.0 | 55.39 | 111 | 80 - 120 | |

Lab Control Sample - Batch: 460-427425

**Method: 6020A
Preparation: 3010A**

| | | |
|-----------------------------------|----------------------------|------------------------------|
| Lab Sample ID: LCS 460-427425/2-A | Analysis Batch: 460-427660 | Instrument ID: ICPMS3 |
| Client Matrix: Water | Prep Batch: 460-427425 | Lab File ID: 024SMPL.d |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 10 mL |
| Analysis Date: 04/01/2017 1420 | Units: ug/L | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1215 | | |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|----------|------|
| Iron | 500 | 549.5 | 110 | 80 - 120 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Matrix Spike - Batch: 460-427425

**Method: 6020A
Preparation: 3010A
Dissolved**

Lab Sample ID: 460-130404-3
Client Matrix: Water
Dilution: 2.0
Analysis Date: 03/31/2017 2129
Prep Date: 03/31/2017 1215
Leach Date: N/A

Analysis Batch: 460-427617
Prep Batch: 460-427425
Leach Batch: N/A
Units: ug/L

Instrument ID: ICPMS3
Lab File ID: 052SMPL.d
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

| Analyte | Sample | Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------|-------------|--------------|--------|--------|----------|------|
| Aluminum | 130 | | 1000 | 1196 | 107 | 75 - 125 | |
| Antimony | 2.0 | U | 10.0 | 11.02 | 110 | 75 - 125 | |
| Arsenic | 2.0 | U | 20.0 | 22.68 | 113 | 75 - 125 | |
| Barium | 116 | | 20.0 | 137.2 | 108 | 75 - 125 | 4 |
| Beryllium | 0.80 | U | 10.0 | 10.75 | 108 | 75 - 125 | |
| Cadmium | 2.0 | U | 10.0 | 10.64 | 106 | 75 - 125 | |
| Calcium | 156000 | | 1000 | 156200 | 13 | 75 - 125 | 4 |
| Chromium | 4.0 | U | 20.0 | 21.38 | 107 | 75 - 125 | |
| Cobalt | 8.2 | | 10.0 | 18.47 | 102 | 75 - 125 | |
| Copper | 1.7 | J | 20.0 | 21.65 | 100 | 75 - 125 | |
| Lead | 1.5 | | 10.0 | 12.26 | 108 | 75 - 125 | |
| Magnesium | 52100 | | 1000 | 52940 | 82 | 75 - 125 | 4 |
| Manganese | 5240 | | 100 | 5369 | 127 | 75 - 125 | 4 |
| Nickel | 7.7 | | 20.0 | 27.77 | 100 | 75 - 125 | |
| Potassium | 13000 | | 1000 | 14050 | 107 | 75 - 125 | 4 |
| Selenium | 10.0 | U | 20.0 | 22.48 | 112 | 75 - 125 | |
| Silver | 2.0 | U | 10.0 | 10.25 | 102 | 75 - 125 | |
| Sodium | 272000 | | 1000 | 271800 | -40 | 75 - 125 | 4 |
| Thallium | 0.80 | U | 8.00 | 8.79 | 110 | 75 - 125 | |
| Vanadium | 4.0 | U | 20.0 | 21.96 | 110 | 75 - 125 | |
| Zinc | 16.0 | U | 100 | 106.9 | 107 | 75 - 125 | |

Matrix Spike - Batch: 460-427425

**Method: 6020A
Preparation: 3010A
Dissolved**

Lab Sample ID: 460-130404-3
Client Matrix: Water
Dilution: 2.0
Analysis Date: 04/01/2017 1422
Prep Date: 03/31/2017 1215
Leach Date: N/A

Analysis Batch: 460-427660
Prep Batch: 460-427425
Leach Batch: N/A
Units: ug/L

Instrument ID: ICPMS3
Lab File ID: 025SMPL.d
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

| Analyte | Sample | Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------|-------------|--------------|--------|--------|----------|------|
| Iron | 352 | | 1000 | 1389 | 104 | 75 - 125 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Duplicate - Batch: 460-427425

Method: 6020A
Preparation: 3010A
Dissolved

Lab Sample ID: 460-130404-3
Client Matrix: Water
Dilution: 2.0
Analysis Date: 03/31/2017 2131
Prep Date: 03/31/2017 1215
Leach Date: N/A

Analysis Batch: 460-427617
Prep Batch: 460-427425
Leach Batch: N/A
Units: ug/L

Instrument ID: ICPMS3
Lab File ID: 053SMPL.d
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|-----------|--------------------|--------|------|-------|------|
| Aluminum | 130 | 129.4 | 0.6 | 20 | |
| Antimony | 2.0 U | 2.0 | NC | 20 | U |
| Arsenic | 2.0 U | 2.0 | NC | 20 | U |
| Barium | 116 | 114.8 | 0.6 | 20 | |
| Beryllium | 0.80 U | 0.80 | NC | 20 | U |
| Cadmium | 2.0 U | 2.0 | NC | 20 | U |
| Calcium | 156000 | 156200 | 0.09 | 20 | |
| Chromium | 4.0 U | 4.0 | NC | 20 | U |
| Cobalt | 8.2 | 8.17 | 0.8 | 20 | |
| Copper | 1.7 J | 1.63 | 2 | 20 | J |
| Lead | 1.5 | 1.46 | 0.3 | 20 | |
| Magnesium | 52100 | 51910 | 0.4 | 20 | |
| Manganese | 5240 | 5220 | 0.4 | 20 | |
| Nickel | 7.7 | 7.73 | 0.3 | 20 | |
| Potassium | 13000 | 12880 | 0.8 | 20 | |
| Selenium | 10.0 U | 10.0 | NC | 20 | U |
| Silver | 2.0 U | 2.0 | NC | 20 | U |
| Sodium | 272000 | 268700 | 1 | 20 | |
| Thallium | 0.80 U | 0.80 | NC | 20 | U |
| Vanadium | 4.0 U | 4.0 | NC | 20 | U |
| Zinc | 16.0 U | 16.0 | NC | 20 | U |

Duplicate - Batch: 460-427425

Method: 6020A
Preparation: 3010A
Dissolved

Lab Sample ID: 460-130404-3
Client Matrix: Water
Dilution: 2.0
Analysis Date: 04/01/2017 1425
Prep Date: 03/31/2017 1215
Leach Date: N/A

Analysis Batch: 460-427660
Prep Batch: 460-427425
Leach Batch: N/A
Units: ug/L

Instrument ID: ICPMS3
Lab File ID: 026SMPL.d
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---------|--------------------|--------|-----|-------|------|
| Iron | 352 | 366.7 | 4 | 20 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-427165

Method: 7470A
Preparation: 7470A

Lab Sample ID: MB 460-427165/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2017 1414
Prep Date: 03/30/2017 1235
Leach Date: N/A

Analysis Batch: 460-427250
Prep Batch: 460-427165
Leach Batch: N/A
Units: ug/L

Instrument ID: LEEMAN6
Lab File ID: 427165hg1.CSV
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

| Analyte | Result | Qual | MDL | RL |
|---------|--------|------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

Lab Control Sample - Batch: 460-427165

Method: 7470A
Preparation: 7470A

Lab Sample ID: LCS 460-427165/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2017 1416
Prep Date: 03/30/2017 1235
Leach Date: N/A

Analysis Batch: 460-427250
Prep Batch: 460-427165
Leach Batch: N/A
Units: ug/L

Instrument ID: LEEMAN6
Lab File ID: 427165hg1.CSV
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|----------|------|
| Mercury | 1.00 | 0.922 | 92 | 80 - 120 | |

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427165**

Method: 7470A
Preparation: 7470A

MS Lab Sample ID: 460-130527-E-2-B MS
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2017 1422
Prep Date: 03/30/2017 1235
Leach Date: N/A

Analysis Batch: 460-427250
Prep Batch: 460-427165
Leach Batch: N/A

Instrument ID: LEEMAN6
Lab File ID: 427165hg1.CSV
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

MSD Lab Sample ID: 460-130527-E-2-C MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2017 1424
Prep Date: 03/30/2017 1235
Leach Date: N/A

Analysis Batch: 460-427250
Prep Batch: 460-427165
Leach Batch: N/A

Instrument ID: LEEMAN6
Lab File ID: 427165hg1.CSV
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

| Analyte | <u>% Rec.</u> | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---------|---------------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Mercury | 105 | 103 | 80 - 120 | 2 | 20 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Duplicate - Batch: 460-427165

Method: 7470A
Preparation: 7470A

Lab Sample ID: 460-130527-B-2-A DU
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2017 1420
Prep Date: 03/30/2017 1235
Leach Date: N/A

Analysis Batch: 460-427250
Prep Batch: 460-427165
Leach Batch: N/A
Units: ug/L

Instrument ID: LEEMAN6
Lab File ID: 427165hg1.CSV
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---------|--------------------|--------|-----|-------|------|
| Mercury | 0.20 U | 0.20 | NC | 20 | U |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-427178

Lab Sample ID: MB 460-427166/1-B
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/30/2017 1512
 Prep Date: 03/30/2017 1253
 Leach Date: N/A

Analysis Batch: 460-427250
 Prep Batch: 460-427178
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A
 Dissolved**

Instrument ID: LEEMAN6
 Lab File ID: 427165hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Result | Qual | MDL | RL |
|---------|--------|------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

Lab Control Sample - Batch: 460-427178

Lab Sample ID: LCS 460-427178/3-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/30/2017 1514
 Prep Date: 03/30/2017 1253
 Leach Date: N/A

Analysis Batch: 460-427250
 Prep Batch: 460-427178
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A**

Instrument ID: LEEMAN6
 Lab File ID: 427165hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|----------|------|
| Mercury | 1.00 | 1.01 | 101 | 80 - 120 | |

Matrix Spike - Batch: 460-427178

Lab Sample ID: 460-130331-D-3-B MS
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/30/2017 1523
 Prep Date: 03/30/2017 1253
 Leach Date: N/A

Analysis Batch: 460-427250
 Prep Batch: 460-427178
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A
 Dissolved**

Instrument ID: LEEMAN6
 Lab File ID: 427165hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Sample Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------------|--------------|--------|--------|----------|------|
| Mercury | 0.20 U | 1.00 | 1.01 | 101 | 80 - 120 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Duplicate - Batch: 460-427178

Method: 7470A
Preparation: 7470A
Dissolved

Lab Sample ID: 460-130331-A-3-A DU
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2017 1522
Prep Date: 03/30/2017 1253
Leach Date: N/A

Analysis Batch: 460-427250
Prep Batch: 460-427178
Leach Batch: N/A
Units: ug/L

Instrument ID: LEEMAN6
Lab File ID: 427165hg1.CSV
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---------|--------------------|--------|-----|-------|------|
| Mercury | 0.20 U | 0.20 | NC | 20 | U |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-426839

Lab Sample ID: MB 460-426839/10-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/29/2017 0845
 Prep Date: 03/29/2017 0421
 Leach Date: N/A

Analysis Batch: 460-426912
 Prep Batch: 460-426839
 Leach Batch: N/A
 Units: mg/Kg

**Method: 7471B
 Preparation: 7471B**

Instrument ID: LEEMAN5
 Lab File ID: 426839HG1.PRN
 Initial Weight/Volume: 0.60 g
 Final Weight/Volume: 50 mL

| Analyte | Result | Qual | MDL | RL |
|---------|--------|------|-------|-------|
| Mercury | 0.017 | U | 0.011 | 0.017 |

LCS-Certified Reference Material - Batch: 460-426839

Lab Sample ID: LCSSRM 460-426839/11-
 Client Matrix: Solid
 Dilution: 20
 Analysis Date: 03/29/2017 0848
 Prep Date: 03/29/2017 0421
 Leach Date: N/A

Analysis Batch: 460-426912
 Prep Batch: 460-426839
 Leach Batch: N/A
 Units: mg/Kg

**Method: 7471B
 Preparation: 7471B**

Instrument ID: LEEMAN5
 Lab File ID: 426839HG1.PRN
 Initial Weight/Volume: 0.60 g
 Final Weight/Volume: 50 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|--------------|------|
| Mercury | 12.3 | 11.87 | 96.5 | 64.1 - 135.8 | |

Matrix Spike - Batch: 460-426839

Lab Sample ID: 460-130440-A-3-G MS
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/29/2017 0854
 Prep Date: 03/29/2017 0421
 Leach Date: N/A

Analysis Batch: 460-426912
 Prep Batch: 460-426839
 Leach Batch: N/A
 Units: mg/Kg

**Method: 7471B
 Preparation: 7471B**

Instrument ID: LEEMAN5
 Lab File ID: 426839HG1.PRN
 Initial Weight/Volume: 0.66 g
 Final Weight/Volume: 50 mL

| Analyte | Sample Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------------|--------------|--------|--------|----------|------|
| Mercury | 0.20 | 0.0885 | 0.260 | 68 | 75 - 125 | N |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Duplicate - Batch: 460-426839

Method: 7471B
Preparation: 7471B

Lab Sample ID: 460-130440-A-3-F DU
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/29/2017 0852
Prep Date: 03/29/2017 0421
Leach Date: N/A

Analysis Batch: 460-426912
Prep Batch: 460-426839
Leach Batch: N/A
Units: mg/Kg

Instrument ID: LEEMAN5
Lab File ID: 426839HG1.PRN
Initial Weight/Volume: 0.66 g
Final Weight/Volume: 50 mL

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---------|--------------------|--------|-----|-------|------|
| Mercury | 0.20 | 0.206 | 3 | 20 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Method Blank - Batch: 460-426846

**Method: 7471B
Preparation: 7471B**

Lab Sample ID: MB 460-426846/1-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/29/2017 0944
Prep Date: 03/29/2017 0447
Leach Date: N/A

Analysis Batch: 460-426912
Prep Batch: 460-426846
Leach Batch: N/A
Units: mg/Kg

Instrument ID: LEEMAN5
Lab File ID: 426839HG1.PRN
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

| Analyte | Result | Qual | MDL | RL |
|---------|--------|------|-------|-------|
| Mercury | 0.017 | U | 0.011 | 0.017 |

LCS-Certified Reference Material - Batch: 460-426846

**Method: 7471B
Preparation: 7471B**

Lab Sample ID: LCSSRM 460-426846/2-~~A~~
Client Matrix: Solid
Dilution: 20
Analysis Date: 03/29/2017 0946
Prep Date: 03/29/2017 0447
Leach Date: N/A

Analysis Batch: 460-426912
Prep Batch: 460-426846
Leach Batch: N/A
Units: mg/Kg

Instrument ID: LEEMAN5
Lab File ID: 426839HG1.PRN
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|--------------|------|
| Mercury | 12.3 | 11.88 | 96.6 | 64.1 - 135.8 | |

Matrix Spike - Batch: 460-426846

**Method: 7471B
Preparation: 7471B**

Lab Sample ID: 460-130404-8
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/29/2017 0951
Prep Date: 03/29/2017 0447
Leach Date: N/A

Analysis Batch: 460-426912
Prep Batch: 460-426846
Leach Batch: N/A
Units: mg/Kg

Instrument ID: LEEMAN5
Lab File ID: 426839HG1.PRN
Initial Weight/Volume: 0.62 g
Final Weight/Volume: 50 mL

| Analyte | Sample Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------------|--------------|--------|--------|----------|------|
| Mercury | 0.19 | 0.0975 | 0.272 | 87 | 75 - 125 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Duplicate - Batch: 460-426846

Method: 7471B
Preparation: 7471B

Lab Sample ID: 460-130404-8
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/29/2017 0949
Prep Date: 03/29/2017 0447
Leach Date: N/A

Analysis Batch: 460-426912
Prep Batch: 460-426846
Leach Batch: N/A
Units: mg/Kg

Instrument ID: LEEMAN5
Lab File ID: 426839HG1.PRN
Initial Weight/Volume: 0.62 g
Final Weight/Volume: 50 mL

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---------|--------------------|--------|-----|-------|------|
| Mercury | 0.19 | 0.200 | 7 | 20 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Duplicate - Batch: 460-426957

**Method: Moisture
Preparation: N/A**

| | | | | | |
|----------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Lab Sample ID: | 460-130404-5 | Analysis Batch: | 460-426957 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Solid | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/29/2017 1505 | Units: | % | Final Weight/Volume: | |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|------------------|--------------------|--------|-----|-------|------|
| Percent Moisture | 21.8 | 22.5 | 3 | 20 | |
| Percent Solids | 78.2 | 77.5 | 0.9 | 20 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130404-1

Duplicate - Batch: 460-426963

**Method: Moisture
Preparation: N/A**

| | | | | | |
|----------------|-------------------|-----------------|------------|------------------------|-----------------------|
| Lab Sample ID: | 460-130441-A-2 DU | Analysis Batch: | 460-426963 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Solid | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/29/2017 1541 | Units: | % | Final Weight/Volume: | |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|------------------|--------------------|--------|-----|-------|------|
| Percent Moisture | 6.6 | 7.6 | 15 | 20 | |
| Percent Solids | 93.4 | 92.4 | 1 | 20 | |

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

SHORT HOLD EST
CHAIN OF CUSTODY / ANALYSIS

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

| | | | | | | | | | | | |
|-------------------------------|--|----------------|--|---------------------------------|--|--|--|-----------------------------|--|-----------------|--|
| Name (for report and invoice) | | Matthew Ley | | Samplers Name (Printed) | | Matthew Ley | | Site/Project Identification | | AMNH | |
| Company | | AKRF | | P.O. # | | | | State (Location of site): | | NJ | |
| Address | | 440 Park Ave S | | Analyst Turnaround Time | | Standard <input checked="" type="checkbox"/> | | Regulatory Program: | | Est | |
| City | | NY | | Push Charges Authorized For: | | 2 Week <input type="checkbox"/> | | Job No: | | 150404 | |
| Phone | | 681 943 4763 | | 1 Week <input type="checkbox"/> | | Other <input type="checkbox"/> | | Project No: | | | |
| Sample Identification | | Date | | Time | | Matrix | | No. of Cont. | | | |
| SB-2 (1-2)-170327 | | 3/27/17 | | 1010 | | Soil | | 5 | | TCL VOCs 8260 | |
| SB-2 (8-9)-170327 | | | | 1030 | | Soil | | 5 | | TCL SVOCs 8210 | |
| GW-2-170327 | | | | | | GW | | 11 | | PCBs/Pest | |
| SB-4 (5-6)-170327 | | | | | | Soil | | 5 | | TAL Metals | |
| SB-4 (6-7)-170327 | | | | | | Soil | | 5 | | TAL Metals F.H. | |
| GW-4-170327 | | | | | | GW | | 11 | | | |
| SB-3 (1-2)-170327 | | | | | | Soil | | 5 | | | |
| SB-3 (5-6)-170327 | | | | | | Soil | | 5 | | | |
| TRB-170327 | | 3/24/17 | | | | GW | | 2 | | | |

Preservation Used: 1 = ICE, 2 = HCl, 3 = H₂SO₄, 4 = HNO₃, 5 = NaOH
6 = Other _____ 7 = Other _____

Soil: 1
Water: 1

Special Instructions

Cat A Derivatives

Water Metals Filtered (Yes/No)?

| | | | | | | | |
|-----------------|---------|---------|------|-------------|--------------|-------------|----|
| Relinquished by | Matthew | Company | AMNE | Date / Time | 3/27/17 1540 | Received by | 1) |
| Relinquished by | | Company | F.A. | Date / Time | 3/27/17 1820 | Received by | 2) |
| Relinquished by | | Company | | Date / Time | | Received by | 3) |
| Relinquished by | | Company | | Date / Time | | Received by | 4) |



460-130404 Chain of Custody

say (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Carolina (No. 578) 2.5 / 2.5 - FR # 8 NOCC.

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-130404-1

Login Number: 130404

List Source: TestAmerica Edison

List Number: 1

Creator: Lysy, Susan

| Question | Answer | Comment |
|--|--------|---|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | N/A | Not present |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 2.5°C IR#8 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | False | See NCM |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4"). | True | |
| Multiphasic samples are not present. | N/A | |
| Samples do not require splitting or compositing. | N/A | |
| Residual Chlorine Checked. | N/A | No analysis requiring residual chlorine check assigned. |

ANALYTICAL REPORT

Job Number: 460-130460-1

Job Description: American Museum of Natural History

For:
AKRF Inc
440 Park Avenue South
7th Floor
New York, NY 10016
Attention: Mr. Eric Park



Approved for release.
Allison L. Bennett
Project Management Assistant II
4/5/2017 12:28 PM

Designee for
Melissa Haas, Project Manager I
777 New Durham Road, Edison, NJ, 08817
(203)944-1310
melissa.haas@testamericainc.com
04/05/2017

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

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TestAmerica Laboratories, Inc.

TestAmerica Edison 777 New Durham Road, Edison, NJ 08817
Tel (732) 549-3900 Fax (732) 549-3679 www.testamericainc.com



Job Number: 460-130460-1

Job Description: American Museum of Natural History

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Approved for release.
Allison L. Bennett
Project Management Assistant II
4/5/2017 12:28 PM

Designee for
Melissa Haas

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CASE NARRATIVE

Client: AKRF Inc

Project: American Museum of Natural History

Report Number: 460-130460-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 3/28/2017 5:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5° C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

Acetone was detected in method blank MB 460-427237/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Acetone was detected in method blank MB 460-427517/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples SB-8(1-2)-170328 (460-130460-1), SB-8A(4.5-5.5)-170328 (460-130460-2), SB-5(1-2)-170328 (460-130460-3) and SB-5(4.5-5.5)-170328 (460-130460-4) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260C. The samples were prepared on 03/29/2017 and analyzed on 04/01/2017.

The continuing calibration verification (CCV) associated with batch 460-427517 recovered above the upper control limit for 1,1,2-Trichloro-1,2,2-trifluoroethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Acetone was detected in method blank LB3 460-426857/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analysis.

All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample GW-5-170328 (460-130460-5) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 03/31/2017.

The continuing calibration verification (CCV) associated with batch 460-427366 recovered above the upper control limit for Trichlorofluoromethane and 1,4-Dioxane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The laboratory control sample duplicate (LCSD) for analytical batch 460-427366 recovered outside control limits for the following analyte: 1,4-Dioxane. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been

reported.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples SB-8(1-2)-170328 (460-130460-1), SB-8A(4.5-5.5)-170328 (460-130460-2), SB-5(1-2)-170328 (460-130460-3) and SB-5(4.5-5.5)-170328 (460-130460-4) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 03/30/2017 and analyzed on 03/31/2017.

Several analytes failed the recovery criteria low for the MS/MSD of sample 460-130122-1 in batch 460-427310. Fluoranthene exceeded the RPD limit.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample GW-5-170328 (460-130460-5) was analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 03/29/2017 and analyzed on 03/30/2017.

The continuing calibration verification (CCV) analyzed in batch 460-427021 was outside the method criteria for the following analyte(s): Indeno[1,2,3-cd]pyrene, Pyrene and 4-Nitroaniline. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All quality control parameters were within the acceptance limits.

PESTICIDES

Samples SB-8(1-2)-170328 (460-130460-1), SB-8A(4.5-5.5)-170328 (460-130460-2), SB-5(1-2)-170328 (460-130460-3) and SB-5(4.5-5.5)-170328 (460-130460-4) were analyzed for pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared and analyzed on 03/31/2017.

No difficulties were encountered during the pesticides analysis.

All quality control parameters were within the acceptance limits.

PESTICIDES

Sample GW-5-170328 (460-130460-5) was analyzed for pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 03/29/2017 and analyzed on 03/30/2017.

No difficulties were encountered during the pesticides analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples SB-8(1-2)-170328 (460-130460-1), SB-8A(4.5-5.5)-170328 (460-130460-2), SB-5(1-2)-170328 (460-130460-3) and SB-5(4.5-5.5)-170328 (460-130460-4) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared and analyzed on 03/31/2017.

Aroclor 1016 failed the recovery criteria high for the MS/MSD of sample 460-130306-11 in batch 460-427376.

Refer to the QC report for details.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Sample GW-5-170328 (460-130460-5) was analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The

samples were prepared on 03/29/2017 and analyzed on 03/30/2017.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

METALS

Samples SB-8(1-2)-170328 (460-130460-1), SB-8A(4.5-5.5)-170328 (460-130460-2), SB-5(1-2)-170328 (460-130460-3) and SB-5(4.5-5.5)-170328 (460-130460-4) were analyzed for metals in accordance with EPA SW-846 Methods 6010C. The samples were prepared on 03/30/2017 and analyzed on 03/31/2017.

Antimony failed the recovery criteria low for the MS of sample SB-5(4.5-5.5)-170328MS (460-130460-4) in batch 460-427491. Aluminum, Iron and Potassium failed the recovery criteria high.

Antimony, Iron and Manganese failed the recovery criteria low for the MS of sample 460-130548-12 in batch 460-427449. Aluminum and Calcium failed the recovery criteria high.

Chromium exceeded the RPD limit for the duplicate of sample 460-130548-12.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

Samples SB-8(1-2)-170328 (460-130460-1)[4X], SB-8A(4.5-5.5)-170328 (460-130460-2)[4X], SB-5(1-2)-170328 (460-130460-3)[4X] and SB-5(4.5-5.5)-170328 (460-130460-4)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

DISSOLVED METALS

Sample GW-5-170328 (460-130460-5) was analyzed for dissolved metals in accordance with EPA SW-846 Method 6020A. The samples were prepared on 04/04/2017 and analyzed on 04/04/2017 and 04/05/2017.

Several analytes failed the recovery criteria low for the MS of sample 460-130174-1 in batch 460-428349.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the dissolved metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS

Sample GW-5-170328 (460-130460-5) was analyzed for total metals in accordance with EPA SW-846 Method 6020A. The samples were prepared on 03/31/2017 and analyzed on 04/02/2017 and 04/03/2017.

Calcium, Potassium and Sodium failed the recovery criteria low for the MS of sample 460-130527-2 in batch 460-427865.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples SB-8(1-2)-170328 (460-130460-1), SB-8A(4.5-5.5)-170328 (460-130460-2), SB-5(1-2)-170328 (460-130460-3) and SB-5(4.5-5.5)-170328 (460-130460-4) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 03/30/2017.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

DISSOLVED MERCURY

Sample GW-5-170328 (460-130460-5) was analyzed for dissolved mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 03/29/2017.

No difficulties were encountered during the dissolved Hg analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Sample GW-5-170328 (460-130460-5) was analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 03/30/2017.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples SB-8(1-2)-170328 (460-130460-1), SB-8A(4.5-5.5)-170328 (460-130460-2), SB-5(1-2)-170328 (460-130460-3) and SB-5(4.5-5.5)-170328 (460-130460-4) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 03/30/2017.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130460-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|-------------------------|--------|-----------|--------------------|-------|----------|
| 460-130460-1 | SB-8(1-2)-170328 | | | | | |
| Acetone | | 2.3 | J B | 5.6 | ug/Kg | 8260C |
| m-Xylene & p-Xylene | | 0.13 | J | 1.1 | ug/Kg | 8260C |
| Aluminum | | 9990 | | 31.9 | mg/Kg | 6010C |
| Barium | | 96.1 | | 31.9 | mg/Kg | 6010C |
| Beryllium | | 0.41 | | 0.32 | mg/Kg | 6010C |
| Calcium | | 1420 | | 797 | mg/Kg | 6010C |
| Chromium | | 18.6 | | 1.6 | mg/Kg | 6010C |
| Cobalt | | 11.5 | | 8.0 | mg/Kg | 6010C |
| Copper | | 39.6 | | 4.0 | mg/Kg | 6010C |
| Iron | | 19500 | | 23.9 | mg/Kg | 6010C |
| Lead | | 5.0 | | 1.6 | mg/Kg | 6010C |
| Magnesium | | 5920 | | 797 | mg/Kg | 6010C |
| Manganese | | 182 | | 2.4 | mg/Kg | 6010C |
| Nickel | | 24.4 | | 6.4 | mg/Kg | 6010C |
| Potassium | | 6000 | | 797 | mg/Kg | 6010C |
| Sodium | | 146 | J | 797 | mg/Kg | 6010C |
| Vanadium | | 17.2 | | 8.0 | mg/Kg | 6010C |
| Zinc | | 68.7 | | 4.8 | mg/Kg | 6010C |
| Mercury | | 0.015 | J | 0.016 | mg/Kg | 7471B |
| Percent Moisture | | 2.0 | | 1.0 | % | Moisture |
| Percent Solids | | 98.0 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130460-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|------------------------------|--------|-----------|--------------------|-------|----------|
| 460-130460-2 | SB-8A(4.5-5.5)-170328 | | | | | |
| Acetone | | 4.1 | J B | 5.8 | ug/Kg | 8260C |
| Carbon disulfide | | 0.65 | J | 1.2 | ug/Kg | 8260C |
| Methylene Chloride | | 0.42 | J | 1.2 | ug/Kg | 8260C |
| m-Xylene & p-Xylene | | 0.16 | J | 1.2 | ug/Kg | 8260C |
| Benzo[a]anthracene | | 47 | | 36 | ug/Kg | 8270D |
| Benzo[b]fluoranthene | | 52 | | 36 | ug/Kg | 8270D |
| Chrysene | | 62 | J | 360 | ug/Kg | 8270D |
| Fluoranthene | | 69 | J | 360 | ug/Kg | 8270D |
| Isophorone | | 71 | J | 140 | ug/Kg | 8270D |
| Phenanthrene | | 29 | J | 360 | ug/Kg | 8270D |
| Pyrene | | 71 | J | 360 | ug/Kg | 8270D |
| Aluminum | | 9820 | | 33.7 | mg/Kg | 6010C |
| Barium | | 91.5 | | 33.7 | mg/Kg | 6010C |
| Beryllium | | 0.37 | | 0.34 | mg/Kg | 6010C |
| Calcium | | 8070 | | 843 | mg/Kg | 6010C |
| Chromium | | 21.3 | | 1.7 | mg/Kg | 6010C |
| Cobalt | | 10 | | 8.4 | mg/Kg | 6010C |
| Copper | | 95.8 | | 4.2 | mg/Kg | 6010C |
| Iron | | 19100 | | 25.3 | mg/Kg | 6010C |
| Lead | | 6.8 | | 1.7 | mg/Kg | 6010C |
| Magnesium | | 6620 | | 843 | mg/Kg | 6010C |
| Manganese | | 125 | | 2.5 | mg/Kg | 6010C |
| Nickel | | 28.5 | | 6.7 | mg/Kg | 6010C |
| Potassium | | 5700 | | 843 | mg/Kg | 6010C |
| Sodium | | 195 | J | 843 | mg/Kg | 6010C |
| Vanadium | | 19.2 | | 8.4 | mg/Kg | 6010C |
| Zinc | | 52.8 | | 5.1 | mg/Kg | 6010C |
| Mercury | | 0.048 | | 0.017 | mg/Kg | 7471B |
| Percent Moisture | | 7.3 | | 1.0 | % | Moisture |
| Percent Solids | | 92.7 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130460-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|-------------------------|--------|-----------|--------------------|-------|----------|
| 460-130460-3 | SB-5(1-2)-170328 | | | | | |
| Acetone | | 1.7 | J B | 5.5 | ug/Kg | 8260C |
| m-Xylene & p-Xylene | | 0.15 | J | 1.1 | ug/Kg | 8260C |
| Aluminum | | 12400 | | 33.5 | mg/Kg | 6010C |
| Barium | | 90.4 | | 33.5 | mg/Kg | 6010C |
| Beryllium | | 0.64 | | 0.33 | mg/Kg | 6010C |
| Calcium | | 1250 | | 837 | mg/Kg | 6010C |
| Chromium | | 19.6 | | 1.7 | mg/Kg | 6010C |
| Cobalt | | 12.8 | | 8.4 | mg/Kg | 6010C |
| Copper | | 54.5 | | 4.2 | mg/Kg | 6010C |
| Iron | | 19800 | | 25.1 | mg/Kg | 6010C |
| Lead | | 6.0 | | 1.7 | mg/Kg | 6010C |
| Magnesium | | 5940 | | 837 | mg/Kg | 6010C |
| Manganese | | 248 | | 2.5 | mg/Kg | 6010C |
| Nickel | | 24.1 | | 6.7 | mg/Kg | 6010C |
| Potassium | | 5370 | | 837 | mg/Kg | 6010C |
| Sodium | | 105 | J | 837 | mg/Kg | 6010C |
| Vanadium | | 18.8 | | 8.4 | mg/Kg | 6010C |
| Zinc | | 67.7 | | 5.0 | mg/Kg | 6010C |
| Mercury | | 0.017 | J | 0.018 | mg/Kg | 7471B |
| Percent Moisture | | 5.2 | | 1.0 | % | Moisture |
| Percent Solids | | 94.8 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130460-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|-----------------------------|--------|-----------|--------------------|-------|----------|
| 460-130460-4 | SB-5(4.5-5.5)-170328 | | | | | |
| Acetone | | 2.6 | J B | 5.5 | ug/Kg | 8260C |
| Methylene Chloride | | 0.42 | J | 1.1 | ug/Kg | 8260C |
| m-Xylene & p-Xylene | | 0.14 | J | 1.1 | ug/Kg | 8260C |
| Aluminum | | 13300 | | 35.1 | mg/Kg | 6010C |
| Barium | | 104 | | 35.1 | mg/Kg | 6010C |
| Beryllium | | 0.68 | | 0.35 | mg/Kg | 6010C |
| Calcium | | 1410 | | 877 | mg/Kg | 6010C |
| Chromium | | 23.6 | | 1.8 | mg/Kg | 6010C |
| Cobalt | | 13.6 | | 8.8 | mg/Kg | 6010C |
| Copper | | 43.9 | | 4.4 | mg/Kg | 6010C |
| Iron | | 22100 | | 26.3 | mg/Kg | 6010C |
| Lead | | 6.3 | | 1.8 | mg/Kg | 6010C |
| Magnesium | | 6570 | | 877 | mg/Kg | 6010C |
| Manganese | | 270 | | 2.6 | mg/Kg | 6010C |
| Nickel | | 26.9 | | 7.0 | mg/Kg | 6010C |
| Potassium | | 6230 | | 877 | mg/Kg | 6010C |
| Sodium | | 136 | J | 877 | mg/Kg | 6010C |
| Vanadium | | 19.7 | | 8.8 | mg/Kg | 6010C |
| Zinc | | 80.2 | | 5.3 | mg/Kg | 6010C |
| Mercury | | 0.016 | J | 0.017 | mg/Kg | 7471B |
| Percent Moisture | | 7.3 | | 1.0 | % | Moisture |
| Percent Solids | | 92.7 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130460-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|--------------------|--------|-----------|--------------------|-------|--------|
| 460-130460-5 | GW-5-170328 | | | | | |
| Aluminum | | 3800 | | 40.0 | ug/L | 6020A |
| Arsenic | | 0.87 | J | 2.0 | ug/L | 6020A |
| Barium | | 39.3 | | 4.0 | ug/L | 6020A |
| Calcium | | 70700 | | 200 | ug/L | 6020A |
| Chromium | | 6.3 | | 4.0 | ug/L | 6020A |
| Cobalt | | 4.2 | | 4.0 | ug/L | 6020A |
| Copper | | 13.9 | | 4.0 | ug/L | 6020A |
| Iron | | 4680 | | 120 | ug/L | 6020A |
| Lead | | 4.4 | | 1.2 | ug/L | 6020A |
| Magnesium | | 5820 | | 200 | ug/L | 6020A |
| Manganese | | 130 | | 8.0 | ug/L | 6020A |
| Nickel | | 5.4 | | 4.0 | ug/L | 6020A |
| Potassium | | 12000 | | 200 | ug/L | 6020A |
| Selenium | | 1.8 | J | 10.0 | ug/L | 6020A |
| Sodium | | 21800 | | 200 | ug/L | 6020A |
| Vanadium | | 6.5 | | 4.0 | ug/L | 6020A |
| Zinc | | 21.6 | | 16.0 | ug/L | 6020A |
| <i>Dissolved</i> | | | | | | |
| Aluminum | | 885 | | 40.0 | ug/L | 6020A |
| Barium | | 24.1 | | 4.0 | ug/L | 6020A |
| Calcium | | 69900 | | 200 | ug/L | 6020A |
| Copper | | 2.1 | J | 4.0 | ug/L | 6020A |
| Iron | | 448 | | 120 | ug/L | 6020A |
| Lead | | 0.96 | J | 1.2 | ug/L | 6020A |
| Magnesium | | 4940 | | 200 | ug/L | 6020A |
| Manganese | | 31.7 | | 8.0 | ug/L | 6020A |
| Potassium | | 12300 | | 200 | ug/L | 6020A |
| Selenium | | 2.3 | J | 10.0 | ug/L | 6020A |
| Sodium | | 22300 | | 200 | ug/L | 6020A |
| Vanadium | | 2.7 | J | 4.0 | ug/L | 6020A |

METHOD SUMMARY

Client: AKRF Inc

Job Number: 460-130460-1

| Description | Lab Location | Method | Preparation Method |
|--|--------------|--------------|--------------------|
| Matrix: Solid | | | |
| Volatile Organic Compounds by GC/MS | TAL EDI | SW846 8260C | |
| Closed System Purge and Trap | TAL EDI | | SW846 5035 |
| Semivolatile Organic Compounds (GC/MS) | TAL EDI | SW846 8270D | |
| Microwave Extraction | TAL EDI | | SW846 3546 |
| Organochlorine Pesticides (GC) | TAL EDI | SW846 8081B | |
| Microwave Extraction | TAL EDI | | SW846 3546 |
| Polychlorinated Biphenyls (PCBs) by Gas Chromatography | TAL EDI | SW846 8082A | |
| Microwave Extraction | TAL EDI | | SW846 3546 |
| Metals (ICP) | TAL EDI | SW846 6010C | |
| Preparation, Metals | TAL EDI | | SW846 3050B |
| Mercury (CVAA) | TAL EDI | SW846 7471B | |
| Preparation, Mercury | TAL EDI | | SW846 7471B |
| Percent Moisture | TAL EDI | EPA Moisture | |
| Matrix: Water | | | |
| Volatile Organic Compounds by GC/MS | TAL EDI | SW846 8260C | |
| Purge and Trap | TAL EDI | | SW846 5030C |
| Semivolatile Organic Compounds (GC/MS) | TAL EDI | SW846 8270D | |
| Liquid-Liquid Extraction (Separatory Funnel) | TAL EDI | | SW846 3510C |
| Organochlorine Pesticides (GC) | TAL EDI | SW846 8081B | |
| Liquid-Liquid Extraction (Separatory Funnel) | TAL EDI | | SW846 3510C |
| Polychlorinated Biphenyls (PCBs) by Gas Chromatography | TAL EDI | SW846 8082A | |
| Liquid-Liquid Extraction (Separatory Funnel) | TAL EDI | | SW846 3510C |
| Metals (ICP/MS) | TAL EDI | SW846 6020A | |
| Preparation, Total Metals | TAL EDI | | SW846 3010A |
| Metals (ICP/MS) | TAL EDI | SW846 6020A | |
| Preparation, Total Metals | TAL EDI | | SW846 3010A |
| Sample Filtration, Field | | | FIELD_FLTRD |
| Mercury (CVAA) | TAL EDI | SW846 7470A | |
| Preparation, Mercury | TAL EDI | | SW846 7470A |
| Mercury (CVAA) | TAL EDI | SW846 7470A | |
| Preparation, Mercury | TAL EDI | | SW846 7470A |
| Sample Filtration, Field | | | FIELD_FLTRD |

Lab References:

TAL EDI = TestAmerica Edison

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: AKRF Inc

Job Number: 460-130460-1

| Method | Analyst | Analyst ID |
|---------------|------------------------------|-------------------|
| SW846 8260C | Martinez, Eddie | EMM |
| SW846 8260C | Tupayachi, Audberto | AAT |
| SW846 8270D | Crocco, Michael | MMC |
| SW846 8081B | Kapoor, Sita | SAK |
| SW846 8081B | Mulani, Heta X | HXM |
| SW846 8082A | Patel, Jignesh | JHP |
| SW846 6010C | Chang, Churn Der | CDC |
| SW846 6020A | Patel, Purva H | PHP |
| SW846 7470A | Sheikh, Razia B | RBS |
| SW846 7471B | Staib, Thomas | TJS |
| EPA Moisture | Villadarez, Gerson Timothy S | GTSV |

SAMPLE SUMMARY

Client: AKRF Inc

Job Number: 460-130460-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|----------------------|-------------------------|----------------------|------------------------------|-------------------------------|
| 460-130460-1 | SB-8(1-2)-170328 | Solid | 03/28/2017 0800 | 03/28/2017 1740 |
| 460-130460-2 | SB-8A(4.5-5.5)-170328 | Solid | 03/28/2017 0915 | 03/28/2017 1740 |
| 460-130460-3 | SB-5(1-2)-170328 | Solid | 03/28/2017 0825 | 03/28/2017 1740 |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | Solid | 03/28/2017 0845 | 03/28/2017 1740 |
| 460-130460-5 | GW-5-170328 | Water | 03/28/2017 1025 | 03/28/2017 1740 |

SAMPLE RESULTS

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-8(1-2)-170328

Lab Sample ID: 460-130460-1

Date Sampled: 03/28/2017 0800

Client Matrix: Solid

% Moisture: 2.0

Date Received: 03/28/2017 1740

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427517 | Instrument ID: CVOAMS4 |
| Prep Method: 5035 | Prep Batch: 460-426857 | Lab File ID: D34562.D |
| Dilution: 1.0 | | Initial Weight/Volume: 4.54 g |
| Analysis Date: 04/01/2017 0158 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/29/2017 0646 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|-----|
| 1,1,1-Trichloroethane | | 1.1 | U | 0.43 | 1.1 |
| 1,1,2,2-Tetrachloroethane | | 1.1 | U | 0.19 | 1.1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 1.1 | U | 0.49 | 1.1 |
| 1,1,2-Trichloroethane | | 1.1 | U | 0.31 | 1.1 |
| 1,1-Dichloroethane | | 1.1 | U | 0.38 | 1.1 |
| 1,1-Dichloroethene | | 1.1 | U | 0.46 | 1.1 |
| 1,2,3-Trichlorobenzene | | 1.1 | U | 0.12 | 1.1 |
| 1,2,4-Trichlorobenzene | | 1.1 | U | 0.36 | 1.1 |
| 1,2-Dibromo-3-Chloropropane | | 1.1 | U | 0.53 | 1.1 |
| 1,2-Dichlorobenzene | | 1.1 | U | 0.16 | 1.1 |
| 1,2-Dichloroethane | | 1.1 | U | 0.12 | 1.1 |
| 1,2-Dichloropropane | | 1.1 | U | 0.19 | 1.1 |
| 1,3-Dichlorobenzene | | 1.1 | U | 0.13 | 1.1 |
| 1,4-Dichlorobenzene | | 1.1 | U | 0.15 | 1.1 |
| 1,4-Dioxane | | 22 | U | 7.2 | 22 |
| 2-Butanone (MEK) | | 5.6 | U | 0.87 | 5.6 |
| 2-Hexanone | | 5.6 | U | 1.1 | 5.6 |
| 4-Methyl-2-pentanone (MIBK) | | 5.6 | U | 2.5 | 5.6 |
| Acetone | | 2.3 | J B | 1.2 | 5.6 |
| Benzene | | 1.1 | U | 0.22 | 1.1 |
| Bromoform | | 1.1 | U | 0.15 | 1.1 |
| Bromomethane | | 1.1 | U | 0.36 | 1.1 |
| Carbon disulfide | | 1.1 | U | 0.48 | 1.1 |
| Carbon tetrachloride | | 1.1 | U | 0.48 | 1.1 |
| Chlorobenzene | | 1.1 | U | 0.16 | 1.1 |
| Chlorobromomethane | | 1.1 | U | 0.19 | 1.1 |
| Chlorodibromomethane | | 1.1 | U | 0.17 | 1.1 |
| Chloroethane | | 1.1 | U | 0.39 | 1.1 |
| Chloroform | | 1.1 | U | 0.24 | 1.1 |
| Chloromethane | | 1.1 | U | 0.43 | 1.1 |
| cis-1,2-Dichloroethene | | 1.1 | U | 0.25 | 1.1 |
| cis-1,3-Dichloropropene | | 1.1 | U | 0.17 | 1.1 |
| Cyclohexane | | 1.1 | U | 0.52 | 1.1 |
| Dichlorobromomethane | | 1.1 | U | 0.43 | 1.1 |
| Dichlorodifluoromethane | | 1.1 | U | 0.36 | 1.1 |
| Ethylbenzene | | 1.1 | U | 0.20 | 1.1 |
| Ethylene Dibromide | | 1.1 | U | 0.13 | 1.1 |
| Isopropylbenzene | | 1.1 | U | 0.19 | 1.1 |
| Methyl acetate | | 5.6 | U | 1.0 | 5.6 |
| Methyl tert-butyl ether | | 1.1 | U | 0.19 | 1.1 |
| Methylcyclohexane | | 1.1 | U | 0.56 | 1.1 |
| Methylene Chloride | | 1.1 | U | 0.36 | 1.1 |
| m-Xylene & p-Xylene | | 0.13 | J | 0.12 | 1.1 |
| o-Xylene | | 1.1 | U | 0.18 | 1.1 |
| Styrene | | 1.1 | U | 0.17 | 1.1 |
| Tetrachloroethene | | 1.1 | U | 0.31 | 1.1 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-8A(4.5-5.5)-170328

Lab Sample ID: 460-130460-2

Date Sampled: 03/28/2017 0915

Client Matrix: Solid

% Moisture: 7.3

Date Received: 03/28/2017 1740

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427517 | Instrument ID: CVOAMS4 |
| Prep Method: 5035 | Prep Batch: 460-426857 | Lab File ID: D34563.D |
| Dilution: 1.0 | | Initial Weight/Volume: 4.62 g |
| Analysis Date: 04/01/2017 0223 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/29/2017 0647 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|-----|
| 1,1,1-Trichloroethane | | 1.2 | U | 0.44 | 1.2 |
| 1,1,2,2-Tetrachloroethane | | 1.2 | U | 0.20 | 1.2 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 1.2 | U | 0.51 | 1.2 |
| 1,1,2-Trichloroethane | | 1.2 | U | 0.33 | 1.2 |
| 1,1-Dichloroethane | | 1.2 | U | 0.40 | 1.2 |
| 1,1-Dichloroethene | | 1.2 | U | 0.48 | 1.2 |
| 1,2,3-Trichlorobenzene | | 1.2 | U | 0.13 | 1.2 |
| 1,2,4-Trichlorobenzene | | 1.2 | U | 0.37 | 1.2 |
| 1,2-Dibromo-3-Chloropropane | | 1.2 | U | 0.55 | 1.2 |
| 1,2-Dichlorobenzene | | 1.2 | U | 0.16 | 1.2 |
| 1,2-Dichloroethane | | 1.2 | U | 0.13 | 1.2 |
| 1,2-Dichloropropane | | 1.2 | U | 0.20 | 1.2 |
| 1,3-Dichlorobenzene | | 1.2 | U | 0.14 | 1.2 |
| 1,4-Dichlorobenzene | | 1.2 | U | 0.15 | 1.2 |
| 1,4-Dioxane | | 23 | U | 7.5 | 23 |
| 2-Butanone (MEK) | | 5.8 | U | 0.90 | 5.8 |
| 2-Hexanone | | 5.8 | U | 1.1 | 5.8 |
| 4-Methyl-2-pentanone (MIBK) | | 5.8 | U | 2.6 | 5.8 |
| Acetone | | 4.1 | J B | 1.2 | 5.8 |
| Benzene | | 1.2 | U | 0.23 | 1.2 |
| Bromoform | | 1.2 | U | 0.15 | 1.2 |
| Bromomethane | | 1.2 | U | 0.37 | 1.2 |
| Carbon disulfide | | 0.65 | J | 0.50 | 1.2 |
| Carbon tetrachloride | | 1.2 | U | 0.50 | 1.2 |
| Chlorobenzene | | 1.2 | U | 0.16 | 1.2 |
| Chlorobromomethane | | 1.2 | U | 0.20 | 1.2 |
| Chlorodibromomethane | | 1.2 | U | 0.18 | 1.2 |
| Chloroethane | | 1.2 | U | 0.41 | 1.2 |
| Chloroform | | 1.2 | U | 0.25 | 1.2 |
| Chloromethane | | 1.2 | U | 0.44 | 1.2 |
| cis-1,2-Dichloroethene | | 1.2 | U | 0.26 | 1.2 |
| cis-1,3-Dichloropropene | | 1.2 | U | 0.18 | 1.2 |
| Cyclohexane | | 1.2 | U | 0.54 | 1.2 |
| Dichlorobromomethane | | 1.2 | U | 0.44 | 1.2 |
| Dichlorodifluoromethane | | 1.2 | U | 0.37 | 1.2 |
| Ethylbenzene | | 1.2 | U | 0.21 | 1.2 |
| Ethylene Dibromide | | 1.2 | U | 0.14 | 1.2 |
| Isopropylbenzene | | 1.2 | U | 0.20 | 1.2 |
| Methyl acetate | | 5.8 | U | 1.1 | 5.8 |
| Methyl tert-butyl ether | | 1.2 | U | 0.20 | 1.2 |
| Methylcyclohexane | | 1.2 | U | 0.58 | 1.2 |
| Methylene Chloride | | 0.42 | J | 0.37 | 1.2 |
| m-Xylene & p-Xylene | | 0.16 | J | 0.13 | 1.2 |
| o-Xylene | | 1.2 | U | 0.19 | 1.2 |
| Styrene | | 1.2 | U | 0.18 | 1.2 |
| Tetrachloroethene | | 1.2 | U | 0.33 | 1.2 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-5(1-2)-170328

Lab Sample ID: 460-130460-3

Date Sampled: 03/28/2017 0825

Client Matrix: Solid

% Moisture: 5.2

Date Received: 03/28/2017 1740

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427517 | Instrument ID: CVOAMS4 |
| Prep Method: 5035 | Prep Batch: 460-426857 | Lab File ID: D34564.D |
| Dilution: 1.0 | | Initial Weight/Volume: 4.82 g |
| Analysis Date: 04/01/2017 0247 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/29/2017 0648 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|-----|
| 1,1,1-Trichloroethane | | 1.1 | U | 0.42 | 1.1 |
| 1,1,2,2-Tetrachloroethane | | 1.1 | U | 0.19 | 1.1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 1.1 | U | 0.48 | 1.1 |
| 1,1,2-Trichloroethane | | 1.1 | U | 0.31 | 1.1 |
| 1,1-Dichloroethane | | 1.1 | U | 0.37 | 1.1 |
| 1,1-Dichloroethene | | 1.1 | U | 0.45 | 1.1 |
| 1,2,3-Trichlorobenzene | | 1.1 | U | 0.12 | 1.1 |
| 1,2,4-Trichlorobenzene | | 1.1 | U | 0.35 | 1.1 |
| 1,2-Dibromo-3-Chloropropane | | 1.1 | U | 0.51 | 1.1 |
| 1,2-Dichlorobenzene | | 1.1 | U | 0.15 | 1.1 |
| 1,2-Dichloroethane | | 1.1 | U | 0.12 | 1.1 |
| 1,2-Dichloropropane | | 1.1 | U | 0.19 | 1.1 |
| 1,3-Dichlorobenzene | | 1.1 | U | 0.13 | 1.1 |
| 1,4-Dichlorobenzene | | 1.1 | U | 0.14 | 1.1 |
| 1,4-Dioxane | | 22 | U | 7.0 | 22 |
| 2-Butanone (MEK) | | 5.5 | U | 0.84 | 5.5 |
| 2-Hexanone | | 5.5 | U | 1.0 | 5.5 |
| 4-Methyl-2-pentanone (MIBK) | | 5.5 | U | 2.4 | 5.5 |
| Acetone | | 1.7 | J B | 1.2 | 5.5 |
| Benzene | | 1.1 | U | 0.22 | 1.1 |
| Bromoform | | 1.1 | U | 0.14 | 1.1 |
| Bromomethane | | 1.1 | U | 0.35 | 1.1 |
| Carbon disulfide | | 1.1 | U | 0.47 | 1.1 |
| Carbon tetrachloride | | 1.1 | U | 0.47 | 1.1 |
| Chlorobenzene | | 1.1 | U | 0.15 | 1.1 |
| Chlorobromomethane | | 1.1 | U | 0.19 | 1.1 |
| Chlorodibromomethane | | 1.1 | U | 0.16 | 1.1 |
| Chloroethane | | 1.1 | U | 0.38 | 1.1 |
| Chloroform | | 1.1 | U | 0.23 | 1.1 |
| Chloromethane | | 1.1 | U | 0.42 | 1.1 |
| cis-1,2-Dichloroethene | | 1.1 | U | 0.24 | 1.1 |
| cis-1,3-Dichloropropene | | 1.1 | U | 0.16 | 1.1 |
| Cyclohexane | | 1.1 | U | 0.50 | 1.1 |
| Dichlorobromomethane | | 1.1 | U | 0.42 | 1.1 |
| Dichlorodifluoromethane | | 1.1 | U | 0.35 | 1.1 |
| Ethylbenzene | | 1.1 | U | 0.20 | 1.1 |
| Ethylene Dibromide | | 1.1 | U | 0.13 | 1.1 |
| Isopropylbenzene | | 1.1 | U | 0.19 | 1.1 |
| Methyl acetate | | 5.5 | U | 0.98 | 5.5 |
| Methyl tert-butyl ether | | 1.1 | U | 0.19 | 1.1 |
| Methylcyclohexane | | 1.1 | U | 0.55 | 1.1 |
| Methylene Chloride | | 1.1 | U | 0.35 | 1.1 |
| m-Xylene & p-Xylene | | 0.15 | J | 0.12 | 1.1 |
| o-Xylene | | 1.1 | U | 0.18 | 1.1 |
| Styrene | | 1.1 | U | 0.16 | 1.1 |
| Tetrachloroethene | | 1.1 | U | 0.31 | 1.1 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-5(4.5-5.5)-170328

Lab Sample ID: 460-130460-4

Date Sampled: 03/28/2017 0845

Client Matrix: Solid

% Moisture: 7.3

Date Received: 03/28/2017 1740

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427517 | Instrument ID: CVOAMS4 |
| Prep Method: 5035 | Prep Batch: 460-426857 | Lab File ID: D34565.D |
| Dilution: 1.0 | | Initial Weight/Volume: 4.90 g |
| Analysis Date: 04/01/2017 0312 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/29/2017 0649 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|-----|
| 1,1,1-Trichloroethane | | 1.1 | U | 0.42 | 1.1 |
| 1,1,2,2-Tetrachloroethane | | 1.1 | U | 0.19 | 1.1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 1.1 | U | 0.48 | 1.1 |
| 1,1,2-Trichloroethane | | 1.1 | U | 0.31 | 1.1 |
| 1,1-Dichloroethane | | 1.1 | U | 0.37 | 1.1 |
| 1,1-Dichloroethene | | 1.1 | U | 0.45 | 1.1 |
| 1,2,3-Trichlorobenzene | | 1.1 | U | 0.12 | 1.1 |
| 1,2,4-Trichlorobenzene | | 1.1 | U | 0.35 | 1.1 |
| 1,2-Dibromo-3-Chloropropane | | 1.1 | U | 0.52 | 1.1 |
| 1,2-Dichlorobenzene | | 1.1 | U | 0.15 | 1.1 |
| 1,2-Dichloroethane | | 1.1 | U | 0.12 | 1.1 |
| 1,2-Dichloropropane | | 1.1 | U | 0.19 | 1.1 |
| 1,3-Dichlorobenzene | | 1.1 | U | 0.13 | 1.1 |
| 1,4-Dichlorobenzene | | 1.1 | U | 0.14 | 1.1 |
| 1,4-Dioxane | | 22 | U | 7.0 | 22 |
| 2-Butanone (MEK) | | 5.5 | U | 0.85 | 5.5 |
| 2-Hexanone | | 5.5 | U | 1.0 | 5.5 |
| 4-Methyl-2-pentanone (MIBK) | | 5.5 | U | 2.4 | 5.5 |
| Acetone | | 2.6 | J B | 1.2 | 5.5 |
| Benzene | | 1.1 | U | 0.22 | 1.1 |
| Bromoform | | 1.1 | U | 0.14 | 1.1 |
| Bromomethane | | 1.1 | U | 0.35 | 1.1 |
| Carbon disulfide | | 1.1 | U | 0.47 | 1.1 |
| Carbon tetrachloride | | 1.1 | U | 0.47 | 1.1 |
| Chlorobenzene | | 1.1 | U | 0.15 | 1.1 |
| Chlorobromomethane | | 1.1 | U | 0.19 | 1.1 |
| Chlorodibromomethane | | 1.1 | U | 0.17 | 1.1 |
| Chloroethane | | 1.1 | U | 0.39 | 1.1 |
| Chloroform | | 1.1 | U | 0.23 | 1.1 |
| Chloromethane | | 1.1 | U | 0.42 | 1.1 |
| cis-1,2-Dichloroethene | | 1.1 | U | 0.24 | 1.1 |
| cis-1,3-Dichloropropene | | 1.1 | U | 0.17 | 1.1 |
| Cyclohexane | | 1.1 | U | 0.51 | 1.1 |
| Dichlorobromomethane | | 1.1 | U | 0.42 | 1.1 |
| Dichlorodifluoromethane | | 1.1 | U | 0.35 | 1.1 |
| Ethylbenzene | | 1.1 | U | 0.20 | 1.1 |
| Ethylene Dibromide | | 1.1 | U | 0.13 | 1.1 |
| Isopropylbenzene | | 1.1 | U | 0.19 | 1.1 |
| Methyl acetate | | 5.5 | U | 0.99 | 5.5 |
| Methyl tert-butyl ether | | 1.1 | U | 0.19 | 1.1 |
| Methylcyclohexane | | 1.1 | U | 0.55 | 1.1 |
| Methylene Chloride | | 0.42 | J | 0.35 | 1.1 |
| m-Xylene & p-Xylene | | 0.14 | J | 0.12 | 1.1 |
| o-Xylene | | 1.1 | U | 0.18 | 1.1 |
| Styrene | | 1.1 | U | 0.17 | 1.1 |
| Tetrachloroethene | | 1.1 | U | 0.31 | 1.1 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: GW-5-170328

Lab Sample ID: 460-130460-5

Date Sampled: 03/28/2017 1025

Client Matrix: Water

Date Received: 03/28/2017 1740

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427366 | Instrument ID: CVOAMS8 |
| Prep Method: 5030C | Prep Batch: N/A | Lab File ID: J53167.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 1928 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/31/2017 1928 | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------------------------------------|---------------|-----------|-------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.19 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.080 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.24 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.34 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.35 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.27 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.23 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.22 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.25 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.18 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dioxane | 50 | U * | 8.7 | 50 |
| 2-Butanone (MEK) | 5.0 | U | 2.2 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.72 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 0.63 | 5.0 |
| Acetone | 5.0 | U | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.090 | 1.0 |
| Bromoform | 1.0 | U | 0.18 | 1.0 |
| Bromomethane | 1.0 | U | 0.18 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.22 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.33 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.24 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.30 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.22 | 1.0 |
| Chloroethane | 1.0 | U | 0.37 | 1.0 |
| Chloroform | 1.0 | U | 0.22 | 1.0 |
| Chloromethane | 1.0 | U | 0.22 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.26 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.16 | 1.0 |
| Cyclohexane | 1.0 | U | 0.26 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.15 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.14 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.30 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.19 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.32 | 1.0 |
| Methyl acetate | 5.0 | U | 0.58 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.13 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.22 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.21 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.28 | 1.0 |
| o-Xylene | 1.0 | U | 0.32 | 1.0 |
| Styrene | 1.0 | U | 0.17 | 1.0 |
| Tetrachloroethene | 1.0 | U | 0.12 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: GW-5-170328

Lab Sample ID: 460-130460-5

Date Sampled: 03/28/2017 1025

Client Matrix: Water

Date Received: 03/28/2017 1740

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427366 | Instrument ID: CVOAMS8 |
| Prep Method: 5030C | Prep Batch: N/A | Lab File ID: J53167.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 1928 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/31/2017 1928 | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------------------------|---------------|-----------|-------|-----|
| Toluene | 1.0 | U | 0.25 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.18 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.19 | 1.0 |
| Trichloroethene | 1.0 | U | 0.22 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.15 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.060 | 1.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 111 | | 74 - 132 |
| 4-Bromofluorobenzene | 101 | | 77 - 124 |
| Dibromofluoromethane (Surr) | 107 | | 72 - 131 |
| Toluene-d8 (Surr) | 94 | | 80 - 120 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-8(1-2)-170328

Lab Sample ID: 460-130460-1

Date Sampled: 03/28/2017 0800

Client Matrix: Solid

% Moisture: 2.0

Date Received: 03/28/2017 1740

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427310 | Instrument ID: CBNAMS11 |
| Prep Method: 3546 | Prep Batch: 460-427151 | Lab File ID: z4322966.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0298 g |
| Analysis Date: 03/31/2017 0623 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 1151 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 340 | U | 29 | 340 |
| 1,2,4,5-Tetrachlorobenzene | | 340 | U | 25 | 340 |
| 2,2'-oxybis[1-chloropropane] | | 340 | U | 14 | 340 |
| 2,3,4,6-Tetrachlorophenol | | 340 | U | 32 | 340 |
| 2,4,5-Trichlorophenol | | 340 | U | 34 | 340 |
| 2,4,6-Trichlorophenol | | 140 | U | 9.6 | 140 |
| 2,4-Dichlorophenol | | 140 | U | 7.9 | 140 |
| 2,4-Dimethylphenol | | 340 | U | 74 | 340 |
| 2,4-Dinitrophenol | | 270 | U | 250 | 270 |
| 2,4-Dinitrotoluene | | 68 | U | 13 | 68 |
| 2,6-Dinitrotoluene | | 68 | U | 18 | 68 |
| 2-Chloronaphthalene | | 340 | U | 7.6 | 340 |
| 2-Chlorophenol | | 340 | U | 8.6 | 340 |
| 2-Methylnaphthalene | | 340 | U | 7.4 | 340 |
| 2-Methylphenol | | 340 | U | 15 | 340 |
| 2-Nitroaniline | | 340 | U | 11 | 340 |
| 2-Nitrophenol | | 340 | U | 11 | 340 |
| 3,3'-Dichlorobenzidine | | 140 | U | 38 | 140 |
| 3-Nitroaniline | | 340 | U | 10 | 340 |
| 4,6-Dinitro-2-methylphenol | | 270 | U | 90 | 270 |
| 4-Bromophenyl phenyl ether | | 340 | U | 11 | 340 |
| 4-Chloro-3-methylphenol | | 340 | U | 14 | 340 |
| 4-Chloroaniline | | 340 | U | 8.7 | 340 |
| 4-Chlorophenyl phenyl ether | | 340 | U | 10 | 340 |
| 4-Methylphenol | | 340 | U | 9.2 | 340 |
| 4-Nitroaniline | | 340 | U | 13 | 340 |
| 4-Nitrophenol | | 680 | U | 160 | 680 |
| Acenaphthene | | 340 | U | 8.1 | 340 |
| Acenaphthylene | | 340 | U | 8.7 | 340 |
| Acetophenone | | 340 | U | 7.3 | 340 |
| Anthracene | | 340 | U | 32 | 340 |
| Atrazine | | 140 | U | 15 | 140 |
| Benzaldehyde | | 340 | U | 26 | 340 |
| Benzo[a]anthracene | | 34 | U | 28 | 34 |
| Benzo[a]pyrene | | 34 | U | 10 | 34 |
| Benzo[b]fluoranthene | | 34 | U | 13 | 34 |
| Benzo[g,h,i]perylene | | 340 | U | 19 | 340 |
| Benzo[k]fluoranthene | | 34 | U | 15 | 34 |
| Bis(2-chloroethoxy)methane | | 340 | U | 10 | 340 |
| Bis(2-chloroethyl)ether | | 34 | U | 7.9 | 34 |
| Bis(2-ethylhexyl) phthalate | | 340 | U | 13 | 340 |
| Butyl benzyl phthalate | | 340 | U | 10 | 340 |
| Caprolactam | | 340 | U | 24 | 340 |
| Carbazole | | 340 | U | 8.4 | 340 |
| Chrysene | | 340 | U | 9.2 | 340 |
| Dibenz(a,h)anthracene | | 34 | U | 18 | 34 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-8(1-2)-170328

Lab Sample ID: 460-130460-1

Date Sampled: 03/28/2017 0800

Client Matrix: Solid

% Moisture: 2.0

Date Received: 03/28/2017 1740

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427310 | Instrument ID: CBNAMS11 |
| Prep Method: 3546 | Prep Batch: 460-427151 | Lab File ID: z4322966.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0298 g |
| Analysis Date: 03/31/2017 0623 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 1151 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 340 | U | 10 | 340 |
| Diethyl phthalate | | 340 | U | 9.6 | 340 |
| Dimethyl phthalate | | 340 | U | 9.8 | 340 |
| Di-n-butyl phthalate | | 340 | U | 10 | 340 |
| Di-n-octyl phthalate | | 340 | U | 17 | 340 |
| Fluoranthene | | 340 | U | 10 | 340 |
| Fluorene | | 340 | U | 7.3 | 340 |
| Hexachlorobenzene | | 34 | U | 14 | 34 |
| Hexachlorobutadiene | | 68 | U | 9.5 | 68 |
| Hexachlorocyclopentadiene | | 340 | U | 21 | 340 |
| Hexachloroethane | | 34 | U | 12 | 34 |
| Indeno[1,2,3-cd]pyrene | | 34 | U | 22 | 34 |
| Isophorone | | 140 | U | 7.2 | 140 |
| Naphthalene | | 340 | U | 8.6 | 340 |
| Nitrobenzene | | 34 | U | 11 | 34 |
| N-Nitrosodi-n-propylamine | | 34 | U | 11 | 34 |
| N-Nitrosodiphenylamine | | 340 | U | 31 | 340 |
| Pentachlorophenol | | 270 | U | 41 | 270 |
| Phenanthrene | | 340 | U | 9.0 | 340 |
| Phenol | | 340 | U | 11 | 340 |
| Pyrene | | 340 | U | 15 | 340 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 94 | | 10 - 103 |
| 2-Fluorobiphenyl | 76 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 76 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 80 | | 37 - 94 |
| Phenol-d5 (Surr) | 82 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 94 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-8A(4.5-5.5)-170328

Lab Sample ID: 460-130460-2

Date Sampled: 03/28/2017 0915

Client Matrix: Solid

% Moisture: 7.3

Date Received: 03/28/2017 1740

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427310 | Instrument ID: CBNAMS11 |
| Prep Method: 3546 | Prep Batch: 460-427151 | Lab File ID: z4322979.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0257 g |
| Analysis Date: 03/31/2017 1135 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 1151 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 360 | U | 30 | 360 |
| 1,2,4,5-Tetrachlorobenzene | | 360 | U | 26 | 360 |
| 2,2'-oxybis[1-chloropropane] | | 360 | U | 15 | 360 |
| 2,3,4,6-Tetrachlorophenol | | 360 | U | 33 | 360 |
| 2,4,5-Trichlorophenol | | 360 | U | 35 | 360 |
| 2,4,6-Trichlorophenol | | 140 | U | 10 | 140 |
| 2,4-Dichlorophenol | | 140 | U | 8.4 | 140 |
| 2,4-Dimethylphenol | | 360 | U | 78 | 360 |
| 2,4-Dinitrophenol | | 290 | U | 270 | 290 |
| 2,4-Dinitrotoluene | | 72 | U | 14 | 72 |
| 2,6-Dinitrotoluene | | 72 | U | 19 | 72 |
| 2-Chloronaphthalene | | 360 | U | 8.1 | 360 |
| 2-Chlorophenol | | 360 | U | 9.0 | 360 |
| 2-Methylnaphthalene | | 360 | U | 7.9 | 360 |
| 2-Methylphenol | | 360 | U | 16 | 360 |
| 2-Nitroaniline | | 360 | U | 12 | 360 |
| 2-Nitrophenol | | 360 | U | 12 | 360 |
| 3,3'-Dichlorobenzidine | | 140 | U | 40 | 140 |
| 3-Nitroaniline | | 360 | U | 11 | 360 |
| 4,6-Dinitro-2-methylphenol | | 290 | U | 95 | 290 |
| 4-Bromophenyl phenyl ether | | 360 | U | 11 | 360 |
| 4-Chloro-3-methylphenol | | 360 | U | 15 | 360 |
| 4-Chloroaniline | | 360 | U | 9.2 | 360 |
| 4-Chlorophenyl phenyl ether | | 360 | U | 11 | 360 |
| 4-Methylphenol | | 360 | U | 9.7 | 360 |
| 4-Nitroaniline | | 360 | U | 13 | 360 |
| 4-Nitrophenol | | 720 | U | 170 | 720 |
| Acenaphthene | | 360 | U | 8.6 | 360 |
| Acenaphthylene | | 360 | U | 9.2 | 360 |
| Acetophenone | | 360 | U | 7.8 | 360 |
| Anthracene | | 360 | U | 34 | 360 |
| Atrazine | | 140 | U | 16 | 140 |
| Benzaldehyde | | 360 | U | 27 | 360 |
| Benzo[a]anthracene | | 47 | | 30 | 36 |
| Benzo[a]pyrene | | 36 | U | 11 | 36 |
| Benzo[b]fluoranthene | | 52 | | 14 | 36 |
| Benzo[g,h,i]perylene | | 360 | U | 20 | 360 |
| Benzo[k]fluoranthene | | 36 | U | 16 | 36 |
| Bis(2-chloroethoxy)methane | | 360 | U | 11 | 360 |
| Bis(2-chloroethyl)ether | | 36 | U | 8.4 | 36 |
| Bis(2-ethylhexyl) phthalate | | 360 | U | 14 | 360 |
| Butyl benzyl phthalate | | 360 | U | 11 | 360 |
| Caprolactam | | 360 | U | 26 | 360 |
| Carbazole | | 360 | U | 8.8 | 360 |
| Chrysene | | 62 | J | 9.7 | 360 |
| Dibenz(a,h)anthracene | | 36 | U | 19 | 36 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-8A(4.5-5.5)-170328

Lab Sample ID: 460-130460-2

Date Sampled: 03/28/2017 0915

Client Matrix: Solid

% Moisture: 7.3

Date Received: 03/28/2017 1740

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427310 | Instrument ID: CBNAMS11 |
| Prep Method: 3546 | Prep Batch: 460-427151 | Lab File ID: z4322979.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0257 g |
| Analysis Date: 03/31/2017 1135 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 1151 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 360 | U | 11 | 360 |
| Diethyl phthalate | | 360 | U | 10 | 360 |
| Dimethyl phthalate | | 360 | U | 10 | 360 |
| Di-n-butyl phthalate | | 360 | U | 11 | 360 |
| Di-n-octyl phthalate | | 360 | U | 18 | 360 |
| Fluoranthene | | 69 | J | 11 | 360 |
| Fluorene | | 360 | U | 7.8 | 360 |
| Hexachlorobenzene | | 36 | U | 14 | 36 |
| Hexachlorobutadiene | | 72 | U | 10 | 72 |
| Hexachlorocyclopentadiene | | 360 | U | 22 | 360 |
| Hexachloroethane | | 36 | U | 13 | 36 |
| Indeno[1,2,3-cd]pyrene | | 36 | U | 24 | 36 |
| Isophorone | | 71 | J | 7.6 | 140 |
| Naphthalene | | 360 | U | 9.0 | 360 |
| Nitrobenzene | | 36 | U | 11 | 36 |
| N-Nitrosodi-n-propylamine | | 36 | U | 12 | 36 |
| N-Nitrosodiphenylamine | | 360 | U | 32 | 360 |
| Pentachlorophenol | | 290 | U | 43 | 290 |
| Phenanthrene | | 29 | J | 9.5 | 360 |
| Phenol | | 360 | U | 12 | 360 |
| Pyrene | | 71 | J | 16 | 360 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 25 | | 10 - 103 |
| 2-Fluorobiphenyl | 65 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 50 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 61 | | 37 - 94 |
| Phenol-d5 (Surr) | 56 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 78 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-5(1-2)-170328

Lab Sample ID: 460-130460-3

Date Sampled: 03/28/2017 0825

Client Matrix: Solid

% Moisture: 5.2

Date Received: 03/28/2017 1740

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427310 | Instrument ID: CBNAMS11 |
| Prep Method: 3546 | Prep Batch: 460-427151 | Lab File ID: z4322968.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0168 g |
| Analysis Date: 03/31/2017 0711 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 1151 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 350 | U | 30 | 350 |
| 1,2,4,5-Tetrachlorobenzene | | 350 | U | 26 | 350 |
| 2,2'-oxybis[1-chloropropane] | | 350 | U | 14 | 350 |
| 2,3,4,6-Tetrachlorophenol | | 350 | U | 33 | 350 |
| 2,4,5-Trichlorophenol | | 350 | U | 35 | 350 |
| 2,4,6-Trichlorophenol | | 140 | U | 9.9 | 140 |
| 2,4-Dichlorophenol | | 140 | U | 8.2 | 140 |
| 2,4-Dimethylphenol | | 350 | U | 77 | 350 |
| 2,4-Dinitrophenol | | 280 | U | 260 | 280 |
| 2,4-Dinitrotoluene | | 71 | U | 14 | 71 |
| 2,6-Dinitrotoluene | | 71 | U | 19 | 71 |
| 2-Chloronaphthalene | | 350 | U | 7.9 | 350 |
| 2-Chlorophenol | | 350 | U | 8.9 | 350 |
| 2-Methylnaphthalene | | 350 | U | 7.7 | 350 |
| 2-Methylphenol | | 350 | U | 15 | 350 |
| 2-Nitroaniline | | 350 | U | 11 | 350 |
| 2-Nitrophenol | | 350 | U | 12 | 350 |
| 3,3'-Dichlorobenzidine | | 140 | U | 39 | 140 |
| 3-Nitroaniline | | 350 | U | 10 | 350 |
| 4,6-Dinitro-2-methylphenol | | 280 | U | 93 | 280 |
| 4-Bromophenyl phenyl ether | | 350 | U | 11 | 350 |
| 4-Chloro-3-methylphenol | | 350 | U | 15 | 350 |
| 4-Chloroaniline | | 350 | U | 9.0 | 350 |
| 4-Chlorophenyl phenyl ether | | 350 | U | 10 | 350 |
| 4-Methylphenol | | 350 | U | 9.5 | 350 |
| 4-Nitroaniline | | 350 | U | 13 | 350 |
| 4-Nitrophenol | | 710 | U | 170 | 710 |
| Acenaphthene | | 350 | U | 8.4 | 350 |
| Acenaphthylene | | 350 | U | 9.0 | 350 |
| Acetophenone | | 350 | U | 7.6 | 350 |
| Anthracene | | 350 | U | 33 | 350 |
| Atrazine | | 140 | U | 15 | 140 |
| Benzaldehyde | | 350 | U | 27 | 350 |
| Benzo[a]anthracene | | 35 | U | 29 | 35 |
| Benzo[a]pyrene | | 35 | U | 11 | 35 |
| Benzo[b]fluoranthene | | 35 | U | 14 | 35 |
| Benzo[g,h,i]perylene | | 350 | U | 20 | 350 |
| Benzo[k]fluoranthene | | 35 | U | 15 | 35 |
| Bis(2-chloroethoxy)methane | | 350 | U | 11 | 350 |
| Bis(2-chloroethyl)ether | | 35 | U | 8.2 | 35 |
| Bis(2-ethylhexyl) phthalate | | 350 | U | 14 | 350 |
| Butyl benzyl phthalate | | 350 | U | 11 | 350 |
| Caprolactam | | 350 | U | 25 | 350 |
| Carbazole | | 350 | U | 8.6 | 350 |
| Chrysene | | 350 | U | 9.5 | 350 |
| Dibenz(a,h)anthracene | | 35 | U | 18 | 35 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-5(1-2)-170328

Lab Sample ID: 460-130460-3

Date Sampled: 03/28/2017 0825

Client Matrix: Solid

% Moisture: 5.2

Date Received: 03/28/2017 1740

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427310 | Instrument ID: CBNAMS11 |
| Prep Method: 3546 | Prep Batch: 460-427151 | Lab File ID: z4322968.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0168 g |
| Analysis Date: 03/31/2017 0711 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 1151 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------------|--------------------|----------------|-----------|-------------------|-----|
| Dibenzofuran | | 350 | U | 11 | 350 |
| Diethyl phthalate | | 350 | U | 9.9 | 350 |
| Dimethyl phthalate | | 350 | U | 10 | 350 |
| Di-n-butyl phthalate | | 350 | U | 10 | 350 |
| Di-n-octyl phthalate | | 350 | U | 18 | 350 |
| Fluoranthene | | 350 | U | 10 | 350 |
| Fluorene | | 350 | U | 7.6 | 350 |
| Hexachlorobenzene | | 35 | U | 14 | 35 |
| Hexachlorobutadiene | | 71 | U | 9.8 | 71 |
| Hexachlorocyclopentadiene | | 350 | U | 22 | 350 |
| Hexachloroethane | | 35 | U | 13 | 35 |
| Indeno[1,2,3-cd]pyrene | | 35 | U | 23 | 35 |
| Isophorone | | 140 | U | 7.5 | 140 |
| Naphthalene | | 350 | U | 8.9 | 350 |
| Nitrobenzene | | 35 | U | 11 | 35 |
| N-Nitrosodi-n-propylamine | | 35 | U | 12 | 35 |
| N-Nitrosodiphenylamine | | 350 | U | 32 | 350 |
| Pentachlorophenol | | 280 | U | 42 | 280 |
| Phenanthrene | | 350 | U | 9.3 | 350 |
| Phenol | | 350 | U | 11 | 350 |
| Pyrene | | 350 | U | 16 | 350 |
| | | | | | |
| Surrogate | | %Rec | Qualifier | Acceptance Limits | |
| 2,4,6-Tribromophenol (Surr) | | 76 | | 10 - 103 | |
| 2-Fluorobiphenyl | | 69 | | 38 - 95 | |
| 2-Fluorophenol (Surr) | | 67 | | 25 - 92 | |
| Nitrobenzene-d5 (Surr) | | 70 | | 37 - 94 | |
| Phenol-d5 (Surr) | | 73 | | 32 - 91 | |
| Terphenyl-d14 (Surr) | | 85 | | 24 - 109 | |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-5(4.5-5.5)-170328

Lab Sample ID: 460-130460-4

Date Sampled: 03/28/2017 0845

Client Matrix: Solid

% Moisture: 7.3

Date Received: 03/28/2017 1740

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427310 | Instrument ID: CBNAMS11 |
| Prep Method: 3546 | Prep Batch: 460-427151 | Lab File ID: z4322969.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0315 g |
| Analysis Date: 03/31/2017 0735 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 1151 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 360 | U | 30 | 360 |
| 1,2,4,5-Tetrachlorobenzene | | 360 | U | 26 | 360 |
| 2,2'-oxybis[1-chloropropane] | | 360 | U | 15 | 360 |
| 2,3,4,6-Tetrachlorophenol | | 360 | U | 33 | 360 |
| 2,4,5-Trichlorophenol | | 360 | U | 35 | 360 |
| 2,4,6-Trichlorophenol | | 140 | U | 10 | 140 |
| 2,4-Dichlorophenol | | 140 | U | 8.4 | 140 |
| 2,4-Dimethylphenol | | 360 | U | 78 | 360 |
| 2,4-Dinitrophenol | | 290 | U | 270 | 290 |
| 2,4-Dinitrotoluene | | 72 | U | 14 | 72 |
| 2,6-Dinitrotoluene | | 72 | U | 19 | 72 |
| 2-Chloronaphthalene | | 360 | U | 8.1 | 360 |
| 2-Chlorophenol | | 360 | U | 9.0 | 360 |
| 2-Methylnaphthalene | | 360 | U | 7.9 | 360 |
| 2-Methylphenol | | 360 | U | 15 | 360 |
| 2-Nitroaniline | | 360 | U | 12 | 360 |
| 2-Nitrophenol | | 360 | U | 12 | 360 |
| 3,3'-Dichlorobenzidine | | 140 | U | 40 | 140 |
| 3-Nitroaniline | | 360 | U | 11 | 360 |
| 4,6-Dinitro-2-methylphenol | | 290 | U | 95 | 290 |
| 4-Bromophenyl phenyl ether | | 360 | U | 11 | 360 |
| 4-Chloro-3-methylphenol | | 360 | U | 15 | 360 |
| 4-Chloroaniline | | 360 | U | 9.1 | 360 |
| 4-Chlorophenyl phenyl ether | | 360 | U | 11 | 360 |
| 4-Methylphenol | | 360 | U | 9.7 | 360 |
| 4-Nitroaniline | | 360 | U | 13 | 360 |
| 4-Nitrophenol | | 720 | U | 170 | 720 |
| Acenaphthene | | 360 | U | 8.6 | 360 |
| Acenaphthylene | | 360 | U | 9.1 | 360 |
| Acetophenone | | 360 | U | 7.7 | 360 |
| Anthracene | | 360 | U | 34 | 360 |
| Atrazine | | 140 | U | 16 | 140 |
| Benzaldehyde | | 360 | U | 27 | 360 |
| Benzo[a]anthracene | | 36 | U | 30 | 36 |
| Benzo[a]pyrene | | 36 | U | 11 | 36 |
| Benzo[b]fluoranthene | | 36 | U | 14 | 36 |
| Benzo[g,h,i]perylene | | 360 | U | 20 | 360 |
| Benzo[k]fluoranthene | | 36 | U | 15 | 36 |
| Bis(2-chloroethoxy)methane | | 360 | U | 11 | 360 |
| Bis(2-chloroethyl)ether | | 36 | U | 8.4 | 36 |
| Bis(2-ethylhexyl) phthalate | | 360 | U | 14 | 360 |
| Butyl benzyl phthalate | | 360 | U | 11 | 360 |
| Caprolactam | | 360 | U | 26 | 360 |
| Carbazole | | 360 | U | 8.8 | 360 |
| Chrysene | | 360 | U | 9.7 | 360 |
| Dibenz(a,h)anthracene | | 36 | U | 19 | 36 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-5(4.5-5.5)-170328

Lab Sample ID: 460-130460-4

Date Sampled: 03/28/2017 0845

Client Matrix: Solid

% Moisture: 7.3

Date Received: 03/28/2017 1740

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427310 | Instrument ID: CBNAMS11 |
| Prep Method: 3546 | Prep Batch: 460-427151 | Lab File ID: z4322969.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0315 g |
| Analysis Date: 03/31/2017 0735 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 1151 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 360 | U | 11 | 360 |
| Diethyl phthalate | | 360 | U | 10 | 360 |
| Dimethyl phthalate | | 360 | U | 10 | 360 |
| Di-n-butyl phthalate | | 360 | U | 11 | 360 |
| Di-n-octyl phthalate | | 360 | U | 18 | 360 |
| Fluoranthene | | 360 | U | 11 | 360 |
| Fluorene | | 360 | U | 7.7 | 360 |
| Hexachlorobenzene | | 36 | U | 14 | 36 |
| Hexachlorobutadiene | | 72 | U | 10 | 72 |
| Hexachlorocyclopentadiene | | 360 | U | 22 | 360 |
| Hexachloroethane | | 36 | U | 13 | 36 |
| Indeno[1,2,3-cd]pyrene | | 36 | U | 24 | 36 |
| Isophorone | | 140 | U | 7.6 | 140 |
| Naphthalene | | 360 | U | 9.0 | 360 |
| Nitrobenzene | | 36 | U | 11 | 36 |
| N-Nitrosodi-n-propylamine | | 36 | U | 12 | 36 |
| N-Nitrosodiphenylamine | | 360 | U | 32 | 360 |
| Pentachlorophenol | | 290 | U | 43 | 290 |
| Phenanthrene | | 360 | U | 9.5 | 360 |
| Phenol | | 360 | U | 12 | 360 |
| Pyrene | | 360 | U | 16 | 360 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 75 | | 10 - 103 |
| 2-Fluorobiphenyl | 65 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 64 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 66 | | 37 - 94 |
| Phenol-d5 (Surr) | 69 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 79 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: GW-5-170328

Lab Sample ID: 460-130460-5

Date Sampled: 03/28/2017 1025

Client Matrix: Water

Date Received: 03/28/2017 1740

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Prep Method: 3510C | Prep Batch: 460-426877 | Lab File ID: U333939.D |
| Dilution: 1.0 | | Initial Weight/Volume: 236 mL |
| Analysis Date: 03/30/2017 1149 | | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|------------------------------|---------------|-----------|-------|-----|
| 1,1'-Biphenyl | 11 | U | 0.67 | 11 |
| 1,2,4,5-Tetrachlorobenzene | 11 | U | 0.46 | 11 |
| 2,2'-oxybis[1-chloropropane] | 11 | U | 0.99 | 11 |
| 2,3,4,6-Tetrachlorophenol | 11 | U | 0.73 | 11 |
| 2,4,5-Trichlorophenol | 11 | U | 0.52 | 11 |
| 2,4,6-Trichlorophenol | 11 | U | 0.56 | 11 |
| 2,4-Dichlorophenol | 11 | U | 0.67 | 11 |
| 2,4-Dimethylphenol | 11 | U | 0.96 | 11 |
| 2,4-Dinitrophenol | 21 | U | 2.5 | 21 |
| 2,4-Dinitrotoluene | 2.1 | U | 1.1 | 2.1 |
| 2,6-Dinitrotoluene | 2.1 | U | 0.93 | 2.1 |
| 2-Chloronaphthalene | 11 | U | 0.65 | 11 |
| 2-Chlorophenol | 11 | U | 0.78 | 11 |
| 2-Methylnaphthalene | 11 | U | 0.93 | 11 |
| 2-Methylphenol | 11 | U | 1.4 | 11 |
| 2-Nitroaniline | 11 | U | 0.69 | 11 |
| 2-Nitrophenol | 11 | U | 0.63 | 11 |
| 3,3'-Dichlorobenzidine | 11 | U | 1.1 | 11 |
| 3-Nitroaniline | 11 | U | 0.87 | 11 |
| 4,6-Dinitro-2-methylphenol | 21 | U | 2.1 | 21 |
| 4-Bromophenyl phenyl ether | 11 | U | 1.1 | 11 |
| 4-Chloro-3-methylphenol | 11 | U | 0.81 | 11 |
| 4-Chloroaniline | 11 | U | 0.77 | 11 |
| 4-Chlorophenyl phenyl ether | 11 | U | 1.0 | 11 |
| 4-Methylphenol | 11 | U | 0.92 | 11 |
| 4-Nitroaniline | 11 | U | 0.51 | 11 |
| 4-Nitrophenol | 21 | U | 4.9 | 21 |
| Acenaphthene | 11 | U | 0.93 | 11 |
| Acenaphthylene | 11 | U | 0.69 | 11 |
| Acetophenone | 11 | U | 1.1 | 11 |
| Anthracene | 11 | U | 0.60 | 11 |
| Atrazine | 2.1 | U | 0.82 | 2.1 |
| Benzaldehyde | 11 | U | 0.91 | 11 |
| Benzo[a]anthracene | 1.1 | U | 0.58 | 1.1 |
| Benzo[a]pyrene | 1.1 | U | 0.17 | 1.1 |
| Benzo[b]fluoranthene | 1.1 | U | 0.47 | 1.1 |
| Benzo[g,h,i]perylene | 11 | U | 0.79 | 11 |
| Benzo[k]fluoranthene | 1.1 | U | 0.19 | 1.1 |
| Bis(2-chloroethoxy)methane | 11 | U | 0.73 | 11 |
| Bis(2-chloroethyl)ether | 1.1 | U | 0.13 | 1.1 |
| Bis(2-ethylhexyl) phthalate | 2.1 | U | 0.76 | 2.1 |
| Butyl benzyl phthalate | 11 | U | 0.64 | 11 |
| Caprolactam | 11 | U | 1.1 | 11 |
| Carbazole | 11 | U | 0.90 | 11 |
| Chrysene | 2.1 | U | 0.71 | 2.1 |
| Dibenz(a,h)anthracene | 1.1 | U | 0.095 | 1.1 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: GW-5-170328

Lab Sample ID: 460-130460-5

Date Sampled: 03/28/2017 1025

Client Matrix: Water

Date Received: 03/28/2017 1740

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Prep Method: 3510C | Prep Batch: 460-426877 | Lab File ID: U333939.D |
| Dilution: 1.0 | | Initial Weight/Volume: 236 mL |
| Analysis Date: 03/30/2017 1149 | | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------------------------|---------------|-----------|-------------------|-----|
| Dibenzofuran | 11 | U | 0.90 | 11 |
| Diethyl phthalate | 11 | U | 1.1 | 11 |
| Dimethyl phthalate | 11 | U | 1.0 | 11 |
| Di-n-butyl phthalate | 11 | U | 0.87 | 11 |
| Di-n-octyl phthalate | 11 | U | 0.73 | 11 |
| Fluoranthene | 11 | U | 0.76 | 11 |
| Fluorene | 11 | U | 0.85 | 11 |
| Hexachlorobenzene | 1.1 | U | 0.50 | 1.1 |
| Hexachlorobutadiene | 1.1 | U | 0.81 | 1.1 |
| Hexachlorocyclopentadiene | 11 | U | 0.65 | 11 |
| Hexachloroethane | 1.1 | U | 0.095 | 1.1 |
| Indeno[1,2,3-cd]pyrene | 1.1 | U | 0.22 | 1.1 |
| Isophorone | 11 | U | 0.71 | 11 |
| Naphthalene | 11 | U | 0.85 | 11 |
| Nitrobenzene | 1.1 | U | 0.52 | 1.1 |
| N-Nitrosodi-n-propylamine | 1.1 | U | 0.88 | 1.1 |
| N-Nitrosodiphenylamine | 11 | U | 0.78 | 11 |
| Pentachlorophenol | 21 | U | 2.3 | 21 |
| Phenanthrene | 11 | U | 0.69 | 11 |
| Phenol | 11 | U | 0.43 | 11 |
| Pyrene | 11 | U | 0.88 | 11 |
| | | | | |
| Surrogate | %Rec | Qualifier | Acceptance Limits | |
| 2,4,6-Tribromophenol (Surr) | 79 | | 26 - 139 | |
| 2-Fluorobiphenyl | 90 | | 45 - 107 | |
| 2-Fluorophenol (Surr) | 44 | | 25 - 58 | |
| Nitrobenzene-d5 (Surr) | 87 | | 51 - 108 | |
| Phenol-d5 (Surr) | 28 | | 14 - 39 | |
| Terphenyl-d14 (Surr) | 79 | | 40 - 148 | |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-8(1-2)-170328

Lab Sample ID: 460-130460-1

Date Sampled: 03/28/2017 0800

Client Matrix: Solid

% Moisture: 2.0

Date Received: 03/28/2017 1740

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427379 | Instrument ID: CPESTGC4 |
| Prep Method: 3546 | Prep Batch: 460-427307 | Initial Weight/Volume: +15.0061 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/31/2017 1345 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 0207 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 6.8 | U | 0.90 | 6.8 |
| 4,4'-DDE | | 6.8 | U | 0.99 | 6.8 |
| 4,4'-DDT | | 6.8 | U | 0.70 | 6.8 |
| Aldrin | | 6.8 | U | 0.83 | 6.8 |
| alpha-BHC | | 2.0 | U | 0.62 | 2.0 |
| beta-BHC | | 2.0 | U | 0.66 | 2.0 |
| Chlordane (technical) | | 68 | U | 30 | 68 |
| delta-BHC | | 2.0 | U | 0.74 | 2.0 |
| Dieldrin | | 2.0 | U | 0.89 | 2.0 |
| Endosulfan I | | 6.8 | U | 0.95 | 6.8 |
| Endosulfan II | | 6.8 | U | 1.1 | 6.8 |
| Endosulfan sulfate | | 6.8 | U | 0.80 | 6.8 |
| Endrin | | 6.8 | U | 0.87 | 6.8 |
| Endrin aldehyde | | 6.8 | U | 0.85 | 6.8 |
| Endrin ketone | | 6.8 | U | 0.95 | 6.8 |
| gamma-BHC (Lindane) | | 2.0 | U | 0.61 | 2.0 |
| Heptachlor | | 6.8 | U | 0.88 | 6.8 |
| Heptachlor epoxide | | 6.8 | U | 1.3 | 6.8 |
| Methoxychlor | | 6.8 | U | 1.4 | 6.8 |
| Toxaphene | | 68 | U | 20 | 68 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 100 | | 50 - 150 |
| Tetrachloro-m-xylene | 94 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-8(1-2)-170328

Lab Sample ID: 460-130460-1

Date Sampled: 03/28/2017 0800

Client Matrix: Solid

% Moisture: 2.0

Date Received: 03/28/2017 1740

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-427379

Instrument ID: CPESTGC4

Prep Method: 3546

Prep Batch: 460-427307

Initial Weight/Volume: +15.0061 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/31/2017 1345

Injection Volume: 1 uL

Prep Date: 03/31/2017 0207

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 94 | | 50 - 150 |
| Tetrachloro-m-xylene | 92 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-8A(4.5-5.5)-170328

Lab Sample ID: 460-130460-2

Date Sampled: 03/28/2017 0915

Client Matrix: Solid

% Moisture: 7.3

Date Received: 03/28/2017 1740

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427379 | Instrument ID: CPESTGC4 |
| Prep Method: 3546 | Prep Batch: 460-427307 | Initial Weight/Volume: +15.0335 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/31/2017 1358 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 0207 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 7.2 | U | 0.95 | 7.2 |
| 4,4'-DDE | | 7.2 | U | 1.0 | 7.2 |
| 4,4'-DDT | | 7.2 | U | 0.74 | 7.2 |
| Aldrin | | 7.2 | U | 0.87 | 7.2 |
| alpha-BHC | | 2.2 | U | 0.66 | 2.2 |
| beta-BHC | | 2.2 | U | 0.70 | 2.2 |
| Chlordane (technical) | | 72 | U | 32 | 72 |
| delta-BHC | | 2.2 | U | 0.79 | 2.2 |
| Dieldrin | | 2.2 | U | 0.94 | 2.2 |
| Endosulfan I | | 7.2 | U | 1.0 | 7.2 |
| Endosulfan II | | 7.2 | U | 1.1 | 7.2 |
| Endosulfan sulfate | | 7.2 | U | 0.84 | 7.2 |
| Endrin | | 7.2 | U | 0.92 | 7.2 |
| Endrin aldehyde | | 7.2 | U | 0.89 | 7.2 |
| Endrin ketone | | 7.2 | U | 1.0 | 7.2 |
| gamma-BHC (Lindane) | | 2.2 | U | 0.65 | 2.2 |
| Heptachlor | | 7.2 | U | 0.93 | 7.2 |
| Heptachlor epoxide | | 7.2 | U | 1.4 | 7.2 |
| Methoxychlor | | 7.2 | U | 1.5 | 7.2 |
| Toxaphene | | 72 | U | 21 | 72 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 101 | | 50 - 150 |
| Tetrachloro-m-xylene | 95 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-8A(4.5-5.5)-170328

Lab Sample ID: 460-130460-2

Date Sampled: 03/28/2017 0915

Client Matrix: Solid

% Moisture: 7.3

Date Received: 03/28/2017 1740

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-427379

Instrument ID: CPESTGC4

Prep Method: 3546

Prep Batch: 460-427307

Initial Weight/Volume: +15.0335 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/31/2017 1358

Injection Volume: 1 uL

Prep Date: 03/31/2017 0207

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 95 | | 50 - 150 |
| Tetrachloro-m-xylene | 93 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-5(1-2)-170328

Lab Sample ID: 460-130460-3

Date Sampled: 03/28/2017 0825

Client Matrix: Solid

% Moisture: 5.2

Date Received: 03/28/2017 1740

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427379 | Instrument ID: CPESTGC4 |
| Prep Method: 3546 | Prep Batch: 460-427307 | Initial Weight/Volume: +15.0085 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/31/2017 1410 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 0207 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 7.1 | U | 0.93 | 7.1 |
| 4,4'-DDE | | 7.1 | U | 1.0 | 7.1 |
| 4,4'-DDT | | 7.1 | U | 0.73 | 7.1 |
| Aldrin | | 7.1 | U | 0.85 | 7.1 |
| alpha-BHC | | 2.1 | U | 0.64 | 2.1 |
| beta-BHC | | 2.1 | U | 0.69 | 2.1 |
| Chlordane (technical) | | 71 | U | 31 | 71 |
| delta-BHC | | 2.1 | U | 0.77 | 2.1 |
| Dieldrin | | 2.1 | U | 0.92 | 2.1 |
| Endosulfan I | | 7.1 | U | 0.98 | 7.1 |
| Endosulfan II | | 7.1 | U | 1.1 | 7.1 |
| Endosulfan sulfate | | 7.1 | U | 0.82 | 7.1 |
| Endrin | | 7.1 | U | 0.90 | 7.1 |
| Endrin aldehyde | | 7.1 | U | 0.88 | 7.1 |
| Endrin ketone | | 7.1 | U | 0.98 | 7.1 |
| gamma-BHC (Lindane) | | 2.1 | U | 0.63 | 2.1 |
| Heptachlor | | 7.1 | U | 0.91 | 7.1 |
| Heptachlor epoxide | | 7.1 | U | 1.4 | 7.1 |
| Methoxychlor | | 7.1 | U | 1.5 | 7.1 |
| Toxaphene | | 71 | U | 21 | 71 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 100 | | 50 - 150 |
| Tetrachloro-m-xylene | 96 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-5(1-2)-170328

Lab Sample ID: 460-130460-3

Date Sampled: 03/28/2017 0825

Client Matrix: Solid

% Moisture: 5.2

Date Received: 03/28/2017 1740

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-427379

Instrument ID: CPESTGC4

Prep Method: 3546

Prep Batch: 460-427307

Initial Weight/Volume: +15.0085 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/31/2017 1410

Injection Volume: 1 uL

Prep Date: 03/31/2017 0207

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 96 | | 50 - 150 |
| Tetrachloro-m-xylene | 94 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-5(4.5-5.5)-170328

Lab Sample ID: 460-130460-4

Date Sampled: 03/28/2017 0845

Client Matrix: Solid

% Moisture: 7.3

Date Received: 03/28/2017 1740

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427379 | Instrument ID: CPESTGC4 |
| Prep Method: 3546 | Prep Batch: 460-427307 | Initial Weight/Volume: +15.0011 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/31/2017 1423 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 0207 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 7.2 | U | 0.95 | 7.2 |
| 4,4'-DDE | | 7.2 | U | 1.0 | 7.2 |
| 4,4'-DDT | | 7.2 | U | 0.74 | 7.2 |
| Aldrin | | 7.2 | U | 0.87 | 7.2 |
| alpha-BHC | | 2.2 | U | 0.66 | 2.2 |
| beta-BHC | | 2.2 | U | 0.70 | 2.2 |
| Chlordane (technical) | | 72 | U | 32 | 72 |
| delta-BHC | | 2.2 | U | 0.79 | 2.2 |
| Dieldrin | | 2.2 | U | 0.94 | 2.2 |
| Endosulfan I | | 7.2 | U | 1.0 | 7.2 |
| Endosulfan II | | 7.2 | U | 1.1 | 7.2 |
| Endosulfan sulfate | | 7.2 | U | 0.84 | 7.2 |
| Endrin | | 7.2 | U | 0.92 | 7.2 |
| Endrin aldehyde | | 7.2 | U | 0.89 | 7.2 |
| Endrin ketone | | 7.2 | U | 1.0 | 7.2 |
| gamma-BHC (Lindane) | | 2.2 | U | 0.65 | 2.2 |
| Heptachlor | | 7.2 | U | 0.93 | 7.2 |
| Heptachlor epoxide | | 7.2 | U | 1.4 | 7.2 |
| Methoxychlor | | 7.2 | U | 1.5 | 7.2 |
| Toxaphene | | 72 | U | 21 | 72 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 98 | | 50 - 150 |
| Tetrachloro-m-xylene | 94 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-5(4.5-5.5)-170328

Lab Sample ID: 460-130460-4

Date Sampled: 03/28/2017 0845

Client Matrix: Solid

% Moisture: 7.3

Date Received: 03/28/2017 1740

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-427379

Instrument ID: CPESTGC4

Prep Method: 3546

Prep Batch: 460-427307

Initial Weight/Volume: +15.0011 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/31/2017 1423

Injection Volume: 1 uL

Prep Date: 03/31/2017 0207

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 95 | | 50 - 150 |
| Tetrachloro-m-xylene | 92 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: GW-5-170328

Lab Sample ID: 460-130460-5

Date Sampled: 03/28/2017 1025

Client Matrix: Water

Date Received: 03/28/2017 1740

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427093 | Instrument ID: CPESTGC5 |
| Prep Method: 3510C | Prep Batch: 460-426997 | Initial Weight/Volume: 250 mL |
| Dilution: 1.0 | | Final Weight/Volume: 1 mL |
| Analysis Date: 03/30/2017 1048 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 1947 | | Result Type: PRIMARY |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------------------|---------------|-----------|--------|-------|
| 4,4'-DDD | 0.020 | U | 0.0050 | 0.020 |
| 4,4'-DDE | 0.020 | U | 0.0040 | 0.020 |
| 4,4'-DDT | 0.020 | U | 0.0040 | 0.020 |
| Aldrin | 0.020 | U | 0.0040 | 0.020 |
| alpha-BHC | 0.020 | U | 0.0060 | 0.020 |
| beta-BHC | 0.020 | U | 0.0050 | 0.020 |
| Chlordane (technical) | 0.50 | U | 0.13 | 0.50 |
| delta-BHC | 0.020 | U | 0.0060 | 0.020 |
| Dieldrin | 0.020 | U | 0.0040 | 0.020 |
| Endosulfan I | 0.020 | U | 0.0050 | 0.020 |
| Endosulfan II | 0.020 | U | 0.0040 | 0.020 |
| Endosulfan sulfate | 0.020 | U | 0.0050 | 0.020 |
| Endrin | 0.020 | U | 0.0040 | 0.020 |
| Endrin aldehyde | 0.020 | U | 0.0040 | 0.020 |
| Endrin ketone | 0.020 | U | 0.0040 | 0.020 |
| gamma-BHC (Lindane) | 0.020 | U | 0.0040 | 0.020 |
| Heptachlor | 0.020 | U | 0.0040 | 0.020 |
| Heptachlor epoxide | 0.020 | U | 0.0040 | 0.020 |
| Methoxychlor | 0.020 | U | 0.0040 | 0.020 |
| Toxaphene | 0.50 | U | 0.060 | 0.50 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 37 | | 10 - 150 |
| Tetrachloro-m-xylene | 37 | | 16 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: GW-5-170328

Lab Sample ID: 460-130460-5

Date Sampled: 03/28/2017 1025

Client Matrix: Water

Date Received: 03/28/2017 1740

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427093 | Instrument ID: CPESTGC5 |
| Prep Method: 3510C | Prep Batch: 460-426997 | Initial Weight/Volume: 250 mL |
| Dilution: 1.0 | | Final Weight/Volume: 1 mL |
| Analysis Date: 03/30/2017 1048 | | Injection Volume: 1 uL |
| Prep Date: 03/29/2017 1947 | | Result Type: SECONDARY |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 36 | | 10 - 150 |
| Tetrachloro-m-xylene | 36 | | 16 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: **SB-8(1-2)-170328**

Lab Sample ID: 460-130460-1

Date Sampled: 03/28/2017 0800

Client Matrix: Solid

% Moisture: 2.0

Date Received: 03/28/2017 1740

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | 8082A | Analysis Batch: | 460-427376 | Instrument ID: | CPESTGC11 |
| Prep Method: | 3546 | Prep Batch: | 460-427308 | Initial Weight/Volume: | +15.0061 g |
| Dilution: | 1.0 | | | Final Weight/Volume: | 10 mL |
| Analysis Date: | 03/31/2017 1200 | | | Injection Volume: | 1 uL |
| Prep Date: | 03/31/2017 0211 | | | Result Type: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 68 | U | 9.1 | 68 |
| Aroclor 1221 | | 68 | U | 9.1 | 68 |
| Aroclor 1232 | | 68 | U | 9.1 | 68 |
| Aroclor 1242 | | 68 | U | 9.1 | 68 |
| Aroclor 1248 | | 68 | U | 9.1 | 68 |
| Aroclor 1254 | | 68 | U | 9.4 | 68 |
| Aroclor 1260 | | 68 | U | 9.4 | 68 |
| Aroclor 1268 | | 68 | U | 9.4 | 68 |
| Aroclor-1262 | | 68 | U | 9.4 | 68 |
| Polychlorinated biphenyls, Total | | 68 | U | 9.4 | 68 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 109 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-8(1-2)-170328

Lab Sample ID: 460-130460-1

Date Sampled: 03/28/2017 0800

Client Matrix: Solid

% Moisture: 2.0

Date Received: 03/28/2017 1740

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-427376

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-427308

Initial Weight/Volume: +15.0061 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/31/2017 1200

Injection Volume: 1 uL

Prep Date: 03/31/2017 0211

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 96 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-8A(4.5-5.5)-170328

Lab Sample ID: 460-130460-2

Date Sampled: 03/28/2017 0915

Client Matrix: Solid

% Moisture: 7.3

Date Received: 03/28/2017 1740

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | 8082A | Analysis Batch: | 460-427376 | Instrument ID: | CPESTGC11 |
| Prep Method: | 3546 | Prep Batch: | 460-427308 | Initial Weight/Volume: | +15.0335 g |
| Dilution: | 1.0 | | | Final Weight/Volume: | 10 mL |
| Analysis Date: | 03/31/2017 1215 | | | Injection Volume: | 1 uL |
| Prep Date: | 03/31/2017 0211 | | | Result Type: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 72 | U | 9.6 | 72 |
| Aroclor 1221 | | 72 | U | 9.6 | 72 |
| Aroclor 1232 | | 72 | U | 9.6 | 72 |
| Aroclor 1242 | | 72 | U | 9.6 | 72 |
| Aroclor 1248 | | 72 | U | 9.6 | 72 |
| Aroclor 1254 | | 72 | U | 9.9 | 72 |
| Aroclor 1260 | | 72 | U | 9.9 | 72 |
| Aroclor 1268 | | 72 | U | 9.9 | 72 |
| Aroclor-1262 | | 72 | U | 9.9 | 72 |
| Polychlorinated biphenyls, Total | | 72 | U | 9.9 | 72 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 111 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-8A(4.5-5.5)-170328

Lab Sample ID: 460-130460-2

Date Sampled: 03/28/2017 0915

Client Matrix: Solid

% Moisture: 7.3

Date Received: 03/28/2017 1740

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-427376

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-427308

Initial Weight/Volume: +15.0335 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/31/2017 1215

Injection Volume: 1 uL

Prep Date: 03/31/2017 0211

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 101 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-5(1-2)-170328

Lab Sample ID: 460-130460-3

Date Sampled: 03/28/2017 0825

Client Matrix: Solid

% Moisture: 5.2

Date Received: 03/28/2017 1740

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | 8082A | Analysis Batch: | 460-427376 | Instrument ID: | CPESTGC11 |
| Prep Method: | 3546 | Prep Batch: | 460-427308 | Initial Weight/Volume: | +15.0085 g |
| Dilution: | 1.0 | | | Final Weight/Volume: | 10 mL |
| Analysis Date: | 03/31/2017 1230 | | | Injection Volume: | 1 uL |
| Prep Date: | 03/31/2017 0211 | | | Result Type: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 71 | U | 9.4 | 71 |
| Aroclor 1221 | | 71 | U | 9.4 | 71 |
| Aroclor 1232 | | 71 | U | 9.4 | 71 |
| Aroclor 1242 | | 71 | U | 9.4 | 71 |
| Aroclor 1248 | | 71 | U | 9.4 | 71 |
| Aroclor 1254 | | 71 | U | 9.7 | 71 |
| Aroclor 1260 | | 71 | U | 9.7 | 71 |
| Aroclor 1268 | | 71 | U | 9.7 | 71 |
| Aroclor-1262 | | 71 | U | 9.7 | 71 |
| Polychlorinated biphenyls, Total | | 71 | U | 9.7 | 71 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 107 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-5(1-2)-170328

Lab Sample ID: 460-130460-3

Date Sampled: 03/28/2017 0825

Client Matrix: Solid

% Moisture: 5.2

Date Received: 03/28/2017 1740

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-427376

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-427308

Initial Weight/Volume: +15.0085 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/31/2017 1230

Injection Volume: 1 uL

Prep Date: 03/31/2017 0211

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 93 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-5(4.5-5.5)-170328

Lab Sample ID: 460-130460-4

Date Sampled: 03/28/2017 0845

Client Matrix: Solid

% Moisture: 7.3

Date Received: 03/28/2017 1740

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-427376 | Instrument ID: CPESTGC11 |
| Prep Method: 3546 | Prep Batch: 460-427308 | Initial Weight/Volume: +15.0011 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 03/31/2017 1244 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 0211 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 72 | U | 9.6 | 72 |
| Aroclor 1221 | | 72 | U | 9.6 | 72 |
| Aroclor 1232 | | 72 | U | 9.6 | 72 |
| Aroclor 1242 | | 72 | U | 9.6 | 72 |
| Aroclor 1248 | | 72 | U | 9.6 | 72 |
| Aroclor 1254 | | 72 | U | 9.9 | 72 |
| Aroclor 1260 | | 72 | U | 9.9 | 72 |
| Aroclor 1268 | | 72 | U | 9.9 | 72 |
| Aroclor-1262 | | 72 | U | 9.9 | 72 |
| Polychlorinated biphenyls, Total | | 72 | U | 9.9 | 72 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 112 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-5(4.5-5.5)-170328

Lab Sample ID: 460-130460-4

Date Sampled: 03/28/2017 0845

Client Matrix: Solid

% Moisture: 7.3

Date Received: 03/28/2017 1740

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-427376

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-427308

Initial Weight/Volume: +15.0011 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/31/2017 1244

Injection Volume: 1 uL

Prep Date: 03/31/2017 0211

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 97 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: **GW-5-170328**

Lab Sample ID: 460-130460-5

Date Sampled: 03/28/2017 1025

Client Matrix: Water

Date Received: 03/28/2017 1740

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|----------|
| Analysis Method: | 8082A | Analysis Batch: | 460-427078 | Instrument ID: | CPESTGC7 |
| Prep Method: | 3510C | Prep Batch: | 460-426998 | Initial Weight/Volume: | 250 mL |
| Dilution: | 1.0 | | | Final Weight/Volume: | 1 mL |
| Analysis Date: | 03/30/2017 2035 | | | Injection Volume: | 1 uL |
| Prep Date: | 03/29/2017 1950 | | | Result Type: | PRIMARY |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|----------------------------------|---------------|-----------|-------|------|
| Aroclor 1016 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1221 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1232 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1242 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1248 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1254 | 0.40 | U | 0.084 | 0.40 |
| Aroclor 1260 | 0.40 | U | 0.084 | 0.40 |
| Aroclor 1268 | 0.40 | U | 0.084 | 0.40 |
| Aroclor-1262 | 0.40 | U | 0.084 | 0.40 |
| Polychlorinated biphenyls, Total | 0.40 | U | 0.098 | 0.40 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 61 | | 10 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: GW-5-170328

Lab Sample ID: 460-130460-5

Date Sampled: 03/28/2017 1025

Client Matrix: Water

Date Received: 03/28/2017 1740

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------|
| Analysis Method: | 8082A | Analysis Batch: | 460-427078 | Instrument ID: | CPESTGC7 |
| Prep Method: | 3510C | Prep Batch: | 460-426998 | Initial Weight/Volume: | 250 mL |
| Dilution: | 1.0 | | | Final Weight/Volume: | 1 mL |
| Analysis Date: | 03/30/2017 2035 | | | Injection Volume: | 1 uL |
| Prep Date: | 03/29/2017 1950 | | | Result Type: | SECONDARY |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 61 | | 10 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-8(1-2)-170328

Lab Sample ID: 460-130460-1

Date Sampled: 03/28/2017 0800

Client Matrix: Solid

% Moisture: 2.0

Date Received: 03/28/2017 1740

6010C Metals (ICP)

Analysis Method: 6010C Analysis Batch: 460-427491 Instrument ID: ICP5
Prep Method: 3050B Prep Batch: 460-427290 Lab File ID: 427292D1.asc
Dilution: 4.0 Initial Weight/Volume: 1.28 g
Analysis Date: 03/31/2017 1818 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 1907

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 9990 | | 16.4 | 31.9 |
| Antimony | | 3.2 | U | 1.3 | 3.2 |
| Arsenic | | 2.4 | U | 0.78 | 2.4 |
| Barium | | 96.1 | | 1.1 | 31.9 |
| Beryllium | | 0.41 | | 0.27 | 0.32 |
| Cadmium | | 0.64 | U | 0.33 | 0.64 |
| Calcium | | 1420 | | 47.2 | 797 |
| Chromium | | 18.6 | | 0.77 | 1.6 |
| Cobalt | | 11.5 | | 0.92 | 8.0 |
| Copper | | 39.6 | | 1.0 | 4.0 |
| Iron | | 19500 | | 18.0 | 23.9 |
| Lead | | 5.0 | | 0.63 | 1.6 |
| Magnesium | | 5920 | | 39.8 | 797 |
| Manganese | | 182 | | 0.84 | 2.4 |
| Nickel | | 24.4 | | 1.2 | 6.4 |
| Potassium | | 6000 | | 24.2 | 797 |
| Selenium | | 3.2 | U | 1.1 | 3.2 |
| Silver | | 1.6 | U | 0.28 | 1.6 |
| Sodium | | 146 | J | 54.0 | 797 |
| Thallium | | 3.2 | U | 1.4 | 3.2 |
| Vanadium | | 17.2 | | 0.80 | 8.0 |
| Zinc | | 68.7 | | 1.2 | 4.8 |

7471B Mercury (CVAA)

Analysis Method: 7471B Analysis Batch: 460-427152 Instrument ID: LEEMAN5
Prep Method: 7471B Prep Batch: 460-427055 Lab File ID: 427055HG1.PRN
Dilution: 1.0 Initial Weight/Volume: 0.65 g
Analysis Date: 03/30/2017 0951 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 0357

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.015 | J | 0.010 | 0.016 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-8A(4.5-5.5)-170328

Lab Sample ID: 460-130460-2

Date Sampled: 03/28/2017 0915

Client Matrix: Solid

% Moisture: 7.3

Date Received: 03/28/2017 1740

6010C Metals (ICP)

Analysis Method: 6010C Analysis Batch: 460-427491 Instrument ID: ICP5
Prep Method: 3050B Prep Batch: 460-427290 Lab File ID: 427292D1.asc
Dilution: 4.0 Initial Weight/Volume: 1.28 g
Analysis Date: 03/31/2017 1822 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 1907

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 9820 | | 17.4 | 33.7 |
| Antimony | | 3.4 | U | 1.3 | 3.4 |
| Arsenic | | 2.5 | U | 0.83 | 2.5 |
| Barium | | 91.5 | | 1.2 | 33.7 |
| Beryllium | | 0.37 | | 0.29 | 0.34 |
| Cadmium | | 0.67 | U | 0.35 | 0.67 |
| Calcium | | 8070 | | 49.9 | 843 |
| Chromium | | 21.3 | | 0.82 | 1.7 |
| Cobalt | | 10 | | 0.97 | 8.4 |
| Copper | | 95.8 | | 1.1 | 4.2 |
| Iron | | 19100 | | 19.1 | 25.3 |
| Lead | | 6.8 | | 0.66 | 1.7 |
| Magnesium | | 6620 | | 42.1 | 843 |
| Manganese | | 125 | | 0.89 | 2.5 |
| Nickel | | 28.5 | | 1.2 | 6.7 |
| Potassium | | 5700 | | 25.5 | 843 |
| Selenium | | 3.4 | U | 1.2 | 3.4 |
| Silver | | 1.7 | U | 0.30 | 1.7 |
| Sodium | | 195 | J | 57.1 | 843 |
| Thallium | | 3.4 | U | 1.5 | 3.4 |
| Vanadium | | 19.2 | | 0.84 | 8.4 |
| Zinc | | 52.8 | | 1.2 | 5.1 |

7471B Mercury (CVAA)

Analysis Method: 7471B Analysis Batch: 460-427152 Instrument ID: LEEMAN5
Prep Method: 7471B Prep Batch: 460-427055 Lab File ID: 427055HG1.PRN
Dilution: 1.0 Initial Weight/Volume: 0.66 g
Analysis Date: 03/30/2017 0953 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 0357

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.048 | | 0.011 | 0.017 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-5(1-2)-170328

Lab Sample ID: 460-130460-3

Date Sampled: 03/28/2017 0825

Client Matrix: Solid

% Moisture: 5.2

Date Received: 03/28/2017 1740

6010C Metals (ICP)

Analysis Method: 6010C Analysis Batch: 460-427491 Instrument ID: ICP5
Prep Method: 3050B Prep Batch: 460-427290 Lab File ID: 427292D1.asc
Dilution: 4.0 Initial Weight/Volume: 1.26 g
Analysis Date: 03/31/2017 1826 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 1907

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 12400 | | 17.2 | 33.5 |
| Antimony | | 3.3 | U | 1.3 | 3.3 |
| Arsenic | | 2.5 | U | 0.82 | 2.5 |
| Barium | | 90.4 | | 1.2 | 33.5 |
| Beryllium | | 0.64 | | 0.28 | 0.33 |
| Cadmium | | 0.67 | U | 0.35 | 0.67 |
| Calcium | | 1250 | | 49.6 | 837 |
| Chromium | | 19.6 | | 0.81 | 1.7 |
| Cobalt | | 12.8 | | 0.96 | 8.4 |
| Copper | | 54.5 | | 1.1 | 4.2 |
| Iron | | 19800 | | 18.9 | 25.1 |
| Lead | | 6.0 | | 0.66 | 1.7 |
| Magnesium | | 5940 | | 41.8 | 837 |
| Manganese | | 248 | | 0.88 | 2.5 |
| Nickel | | 24.1 | | 1.2 | 6.7 |
| Potassium | | 5370 | | 25.4 | 837 |
| Selenium | | 3.3 | U | 1.2 | 3.3 |
| Silver | | 1.7 | U | 0.30 | 1.7 |
| Sodium | | 105 | J | 56.7 | 837 |
| Thallium | | 3.3 | U | 1.5 | 3.3 |
| Vanadium | | 18.8 | | 0.84 | 8.4 |
| Zinc | | 67.7 | | 1.2 | 5.0 |

7471B Mercury (CVAA)

Analysis Method: 7471B Analysis Batch: 460-427152 Instrument ID: LEEMAN5
Prep Method: 7471B Prep Batch: 460-427055 Lab File ID: 427055HG1.PRN
Dilution: 1.0 Initial Weight/Volume: 0.61 g
Analysis Date: 03/30/2017 0954 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 0357

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.017 | J | 0.011 | 0.018 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: SB-5(4.5-5.5)-170328

Lab Sample ID: 460-130460-4

Date Sampled: 03/28/2017 0845

Client Matrix: Solid

% Moisture: 7.3

Date Received: 03/28/2017 1740

6010C Metals (ICP)

Analysis Method: 6010C Analysis Batch: 460-427491 Instrument ID: ICP5
Prep Method: 3050B Prep Batch: 460-427292 Lab File ID: 427292D1.asc
Dilution: 4.0 Initial Weight/Volume: 1.23 g
Analysis Date: 03/31/2017 2012 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 1907

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 13300 | | 18.1 | 35.1 |
| Antimony | | 3.5 | U | 1.4 | 3.5 |
| Arsenic | | 2.6 | U | 0.86 | 2.6 |
| Barium | | 104 | | 1.3 | 35.1 |
| Beryllium | | 0.68 | | 0.30 | 0.35 |
| Cadmium | | 0.70 | U | 0.37 | 0.70 |
| Calcium | | 1410 | | 51.9 | 877 |
| Chromium | | 23.6 | | 0.85 | 1.8 |
| Cobalt | | 13.6 | | 1.0 | 8.8 |
| Copper | | 43.9 | | 1.1 | 4.4 |
| Iron | | 22100 | | 19.8 | 26.3 |
| Lead | | 6.3 | | 0.69 | 1.8 |
| Magnesium | | 6570 | | 43.7 | 877 |
| Manganese | | 270 | | 0.92 | 2.6 |
| Nickel | | 26.9 | | 1.3 | 7.0 |
| Potassium | | 6230 | | 26.6 | 877 |
| Selenium | | 3.5 | U | 1.2 | 3.5 |
| Silver | | 1.8 | U | 0.31 | 1.8 |
| Sodium | | 136 | J | 59.3 | 877 |
| Thallium | | 3.5 | U | 1.6 | 3.5 |
| Vanadium | | 19.7 | | 0.88 | 8.8 |
| Zinc | | 80.2 | | 1.3 | 5.3 |

7471B Mercury (CVAA)

Analysis Method: 7471B Analysis Batch: 460-427152 Instrument ID: LEEMAN5
Prep Method: 7471B Prep Batch: 460-427055 Lab File ID: 427055HG1.PRN
Dilution: 1.0 Initial Weight/Volume: 0.63 g
Analysis Date: 03/30/2017 1000 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 0357

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.016 | J | 0.011 | 0.017 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: GW-5-170328

Lab Sample ID: 460-130460-5
Client Matrix: Water

Date Sampled: 03/28/2017 1025
Date Received: 03/28/2017 1740

6020A Metals (ICP/MS)

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: 6020A | Analysis Batch: 460-427865 | Instrument ID: ICPMS3 |
| Prep Method: 3010A | Prep Batch: 460-427352 | Lab File ID: 082SMPL.d |
| Dilution: 2.0 | | Initial Weight/Volume: 50 mL |
| Analysis Date: 04/02/2017 2113 | | Final Weight/Volume: 50 mL |
| Prep Date: 03/31/2017 0951 | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------|---------------|-----------|------|------|
| Aluminum | 3800 | | 18.2 | 40.0 |
| Antimony | 2.0 | U | 0.62 | 2.0 |
| Arsenic | 0.87 | J | 0.64 | 2.0 |
| Barium | 39.3 | | 1.2 | 4.0 |
| Beryllium | 0.80 | U | 0.24 | 0.80 |
| Cadmium | 2.0 | U | 0.71 | 2.0 |
| Calcium | 70700 | | 60.5 | 200 |
| Chromium | 6.3 | | 1.3 | 4.0 |
| Cobalt | 4.2 | | 1.3 | 4.0 |
| Copper | 13.9 | | 1.4 | 4.0 |
| Iron | 4680 | | 42.4 | 120 |
| Lead | 4.4 | | 0.38 | 1.2 |
| Magnesium | 5820 | | 63.6 | 200 |
| Manganese | 130 | | 2.5 | 8.0 |
| Nickel | 5.4 | | 1.4 | 4.0 |
| Potassium | 12000 | | 91.4 | 200 |
| Selenium | 1.8 | J | 0.73 | 10.0 |
| Silver | 2.0 | U | 1.3 | 2.0 |
| Thallium | 0.80 | U | 0.26 | 0.80 |
| Vanadium | 6.5 | | 1.9 | 4.0 |
| Zinc | 21.6 | | 7.0 | 16.0 |

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: 6020A | Analysis Batch: 460-427907 | Instrument ID: ICPMS3 |
| Prep Method: 3010A | Prep Batch: 460-427352 | Lab File ID: 024SMPL.d |
| Dilution: 2.0 | | Initial Weight/Volume: 50 mL |
| Analysis Date: 04/03/2017 1313 | | Final Weight/Volume: 50 mL |
| Prep Date: 03/31/2017 0951 | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|------|-----|
| Sodium | 21800 | | 69.0 | 200 |

6020A Metals (ICP/MS)-Dissolved

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: 6020A | Analysis Batch: 460-428349 | Instrument ID: ICPMS3 |
| Prep Method: 3010A | Prep Batch: 460-428185 | Lab File ID: 096SMPL.d |
| Dilution: 2.0 | | Initial Weight/Volume: 10 mL |
| Analysis Date: 04/04/2017 2300 | | Final Weight/Volume: 10 mL |
| Prep Date: 04/04/2017 1813 | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|----------|---------------|-----------|------|------|
| Aluminum | 885 | | 18.2 | 40.0 |
| Antimony | 2.0 | U | 0.62 | 2.0 |
| Arsenic | 2.0 | U | 0.64 | 2.0 |
| Barium | 24.1 | | 1.2 | 4.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: GW-5-170328

Lab Sample ID: 460-130460-5

Date Sampled: 03/28/2017 1025

Client Matrix: Water

Date Received: 03/28/2017 1740

6020A Metals (ICP/MS)-Dissolved

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------|---------------|-----------|------|------|
| Beryllium | 0.80 | U | 0.24 | 0.80 |
| Cadmium | 2.0 | U | 0.71 | 2.0 |
| Calcium | 69900 | | 60.5 | 200 |
| Chromium | 4.0 | U | 1.3 | 4.0 |
| Cobalt | 4.0 | U | 1.3 | 4.0 |
| Copper | 2.1 | J | 1.4 | 4.0 |
| Iron | 448 | | 42.4 | 120 |
| Lead | 0.96 | J | 0.38 | 1.2 |
| Magnesium | 4940 | | 63.6 | 200 |
| Manganese | 31.7 | | 2.5 | 8.0 |
| Nickel | 4.0 | U | 1.4 | 4.0 |
| Potassium | 12300 | | 91.4 | 200 |
| Silver | 2.0 | U | 1.3 | 2.0 |
| Sodium | 22300 | | 69.0 | 200 |
| Thallium | 0.80 | U | 0.26 | 0.80 |
| Vanadium | 2.7 | J | 1.9 | 4.0 |
| Zinc | 16.0 | U | 7.0 | 16.0 |

Analysis Method: 6020A
Prep Method: 3010A
Dilution: 2.0
Analysis Date: 04/05/2017 0319
Prep Date: 04/04/2017 1813

Analysis Batch: 460-428349
Prep Batch: 460-428185

Instrument ID: ICPMS3
Lab File ID: 201SMPL.d
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|----------|---------------|-----------|------|------|
| Selenium | 2.3 | J | 0.73 | 10.0 |

7470A Mercury (CVAA)

Analysis Method: 7470A
Prep Method: 7470A
Dilution: 1.0
Analysis Date: 03/30/2017 1452
Prep Date: 03/30/2017 1235

Analysis Batch: 460-427250
Prep Batch: 460-427165

Instrument ID: LEEMAN6
Lab File ID: 427165hg1.CSV
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

7470A Mercury (CVAA)-Dissolved

Analysis Method: 7470A
Prep Method: 7470A
Dilution: 1.0
Analysis Date: 03/29/2017 1534
Prep Date: 03/29/2017 1144

Analysis Batch: 460-426971
Prep Batch: 460-426917

Instrument ID: LEEMAN6
Lab File ID: 426913hg1.CSV
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

Client Sample ID: GW-5-170328

Lab Sample ID: 460-130460-5

Client Matrix: Water

Date Sampled: 03/28/2017 1025

Date Received: 03/28/2017 1740

7470A Mercury (CVAA)-Dissolved

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

General Chemistry

Client Sample ID: SB-8(1-2)-170328

Lab Sample ID: 460-130460-1

Client Matrix: Solid

Date Sampled: 03/28/2017 0800

Date Received: 03/28/2017 1740

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|------|-----|-----|--------------------|
| Percent Moisture | 2.0 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-427149 | Analysis Date: 03/30/2017 | | 1140 | | | DryWt Corrected: N |
| Percent Solids | 98.0 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-427149 | Analysis Date: 03/30/2017 | | 1140 | | | DryWt Corrected: N |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

General Chemistry

Client Sample ID: SB-8A(4.5-5.5)-170328

Lab Sample ID: 460-130460-2

Date Sampled: 03/28/2017 0915

Client Matrix: Solid

Date Received: 03/28/2017 1740

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|------|-----|-----|--------------------|
| Percent Moisture | 7.3 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-427149 | Analysis Date: 03/30/2017 | | 1140 | | | DryWt Corrected: N |
| Percent Solids | 92.7 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-427149 | Analysis Date: 03/30/2017 | | 1140 | | | DryWt Corrected: N |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

General Chemistry

Client Sample ID: SB-5(1-2)-170328

Lab Sample ID: 460-130460-3

Client Matrix: Solid

Date Sampled: 03/28/2017 0825

Date Received: 03/28/2017 1740

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|------|-----|-----|--------------------|
| Percent Moisture | 5.2 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-427149 | Analysis Date: 03/30/2017 | | 1140 | | | DryWt Corrected: N |
| Percent Solids | 94.8 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-427149 | Analysis Date: 03/30/2017 | | 1140 | | | DryWt Corrected: N |

Analytical Data

Client: AKRF Inc

Job Number: 460-130460-1

General Chemistry

Client Sample ID: SB-5(4.5-5.5)-170328

Lab Sample ID: 460-130460-4

Date Sampled: 03/28/2017 0845

Client Matrix: Solid

Date Received: 03/28/2017 1740

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|------|-----|-----|--------------------|
| Percent Moisture | 7.3 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-427149 | Analysis Date: 03/30/2017 | | 1140 | | | DryWt Corrected: N |
| Percent Solids | 92.7 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-427149 | Analysis Date: 03/30/2017 | | 1140 | | | DryWt Corrected: N |

DATA REPORTING QUALIFIERS

Client: AKRF Inc

Job Number: 460-130460-1

| Lab Section | Qualifier | Description |
|----------------|-----------|---|
| GC/MS VOA | | |
| | U | Analyzed for but not detected. |
| | J | Indicates an estimated value. |
| | * | LCS or LCSD is outside acceptance limits. |
| | B | The analyte was found in an associated blank, as well as in the sample. |
| GC/MS Semi VOA | | |
| | U | Analyzed for but not detected. |
| | * | Duplicate RPD exceeds control limits |
| | J | Indicates an estimated value. |
| | * | MS or MSD is outside acceptance limits. |
| GC Semi VOA | | |
| | U | Analyzed for but not detected. |
| | * | MS or MSD is outside acceptance limits. |
| | p | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported. |
| Metals | | |
| | * | Duplicate analysis not within control limits. |
| | U | Indicates analyzed for but not detected. |
| | 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| | J | Sample result is greater than the MDL but below the CRDL |
| | N | Spiked sample recovery is not within control limits. |

QUALITY CONTROL RESULTS

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|--|--------------|---------------|--------|------------|
| GC/MS VOA | | | | | |
| Prep Batch: 460-426857 | | | | | |
| LB3 460-426857/1-A | Neutral Leach or MeOH Extraction Blank | T | Solid | 5035 | |
| 460-130460-1 | SB-8(1-2)-170328 | T | Solid | 5035 | |
| 460-130460-2 | SB-8A(4.5-5.5)-170328 | T | Solid | 5035 | |
| 460-130460-3 | SB-5(1-2)-170328 | T | Solid | 5035 | |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | T | Solid | 5035 | |
| Analysis Batch:460-427237 | | | | | |
| LCS 460-427237/3 | Lab Control Sample | T | Solid | 8260C | |
| LCSD 460-427237/4 | Lab Control Sample Duplicate | T | Solid | 8260C | |
| MB 460-427237/7 | Method Blank | T | Solid | 8260C | |
| LB3 460-426857/1-A | Neutral Leach or MeOH Extraction Blank | T | Solid | 8260C | 460-426857 |
| Analysis Batch:460-427366 | | | | | |
| LCS 460-427366/4 | Lab Control Sample | T | Water | 8260C | |
| LCSD 460-427366/5 | Lab Control Sample Duplicate | T | Water | 8260C | |
| MB 460-427366/7 | Method Blank | T | Water | 8260C | |
| 460-130460-5 | GW-5-170328 | T | Water | 8260C | |
| Analysis Batch:460-427517 | | | | | |
| LCS 460-427517/5 | Lab Control Sample | T | Solid | 8260C | |
| LCSD 460-427517/27 | Lab Control Sample Duplicate | T | Solid | 8260C | |
| MB 460-427517/7 | Method Blank | T | Solid | 8260C | |
| 460-130460-1 | SB-8(1-2)-170328 | T | Solid | 8260C | 460-426857 |
| 460-130460-2 | SB-8A(4.5-5.5)-170328 | T | Solid | 8260C | 460-426857 |
| 460-130460-3 | SB-5(1-2)-170328 | T | Solid | 8260C | 460-426857 |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | T | Solid | 8260C | 460-426857 |

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|------------------------------|--------------|---------------|--------|------------|
| GC/MS Semi VOA | | | | | |
| Prep Batch: 460-426877 | | | | | |
| LCS 460-426877/2-A | Lab Control Sample | T | Water | 3510C | |
| LCS 460-426877/4-A | Lab Control Sample | T | Water | 3510C | |
| LCSD 460-426877/3-A | Lab Control Sample Duplicate | T | Water | 3510C | |
| LCSD 460-426877/5-A | Lab Control Sample Duplicate | T | Water | 3510C | |
| MB 460-426877/1-A | Method Blank | T | Water | 3510C | |
| 460-130460-5 | GW-5-170328 | T | Water | 3510C | |
| Analysis Batch:460-427021 | | | | | |
| LCS 460-426877/2-A | Lab Control Sample | T | Water | 8270D | 460-426877 |
| LCS 460-426877/4-A | Lab Control Sample | T | Water | 8270D | 460-426877 |
| LCSD 460-426877/3-A | Lab Control Sample Duplicate | T | Water | 8270D | 460-426877 |
| LCSD 460-426877/5-A | Lab Control Sample Duplicate | T | Water | 8270D | 460-426877 |
| MB 460-426877/1-A | Method Blank | T | Water | 8270D | 460-426877 |
| 460-130460-5 | GW-5-170328 | T | Water | 8270D | 460-426877 |
| Prep Batch: 460-427151 | | | | | |
| LCS 460-427151/2-A | Lab Control Sample | T | Solid | 3546 | |
| LCS 460-427151/3-A | Lab Control Sample | T | Solid | 3546 | |
| MB 460-427151/1-A | Method Blank | T | Solid | 3546 | |
| 460-130122-A-1-B MS | Matrix Spike | T | Solid | 3546 | |
| 460-130122-A-1-C MSD | Matrix Spike Duplicate | T | Solid | 3546 | |
| 460-130460-1 | SB-8(1-2)-170328 | T | Solid | 3546 | |
| 460-130460-2 | SB-8A(4.5-5.5)-170328 | T | Solid | 3546 | |
| 460-130460-3 | SB-5(1-2)-170328 | T | Solid | 3546 | |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | T | Solid | 3546 | |
| Analysis Batch:460-427310 | | | | | |
| LCS 460-427151/2-A | Lab Control Sample | T | Solid | 8270D | 460-427151 |
| LCS 460-427151/3-A | Lab Control Sample | T | Solid | 8270D | 460-427151 |
| MB 460-427151/1-A | Method Blank | T | Solid | 8270D | 460-427151 |
| 460-130122-A-1-B MS | Matrix Spike | T | Solid | 8270D | 460-427151 |
| 460-130122-A-1-C MSD | Matrix Spike Duplicate | T | Solid | 8270D | 460-427151 |
| 460-130460-1 | SB-8(1-2)-170328 | T | Solid | 8270D | 460-427151 |
| 460-130460-2 | SB-8A(4.5-5.5)-170328 | T | Solid | 8270D | 460-427151 |
| 460-130460-3 | SB-5(1-2)-170328 | T | Solid | 8270D | 460-427151 |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | T | Solid | 8270D | 460-427151 |

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|------------------------------|--------------|---------------|--------|------------|
| GC Semi VOA | | | | | |
| Prep Batch: 460-426997 | | | | | |
| LCS 460-426997/2-A | Lab Control Sample | T | Water | 3510C | |
| LCSD 460-426997/3-A | Lab Control Sample Duplicate | T | Water | 3510C | |
| MB 460-426997/1-A | Method Blank | T | Water | 3510C | |
| 460-130460-5 | GW-5-170328 | T | Water | 3510C | |
| Prep Batch: 460-426998 | | | | | |
| LCS 460-426998/2-A | Lab Control Sample | T | Water | 3510C | |
| LCSD 460-426998/3-A | Lab Control Sample Duplicate | T | Water | 3510C | |
| MB 460-426998/1-A | Method Blank | T | Water | 3510C | |
| 460-130460-5 | GW-5-170328 | T | Water | 3510C | |
| Analysis Batch:460-427078 | | | | | |
| 460-130460-5 | GW-5-170328 | T | Water | 8082A | 460-426998 |
| Analysis Batch:460-427093 | | | | | |
| LCS 460-426997/2-A | Lab Control Sample | T | Water | 8081B | 460-426997 |
| LCSD 460-426997/3-A | Lab Control Sample Duplicate | T | Water | 8081B | 460-426997 |
| MB 460-426997/1-A | Method Blank | T | Water | 8081B | 460-426997 |
| 460-130460-5 | GW-5-170328 | T | Water | 8081B | 460-426997 |
| Analysis Batch:460-427113 | | | | | |
| LCS 460-426998/2-A | Lab Control Sample | T | Water | 8082A | 460-426998 |
| LCSD 460-426998/3-A | Lab Control Sample Duplicate | T | Water | 8082A | 460-426998 |
| MB 460-426998/1-A | Method Blank | T | Water | 8082A | 460-426998 |
| Prep Batch: 460-427307 | | | | | |
| LCS 460-427307/2-A | Lab Control Sample | T | Solid | 3546 | |
| MB 460-427307/1-A | Method Blank | T | Solid | 3546 | |
| 460-130105-G-1-G MS | Matrix Spike | T | Solid | 3546 | |
| 460-130105-G-1-H MSD | Matrix Spike Duplicate | T | Solid | 3546 | |
| 460-130460-1 | SB-8(1-2)-170328 | T | Solid | 3546 | |
| 460-130460-2 | SB-8A(4.5-5.5)-170328 | T | Solid | 3546 | |
| 460-130460-3 | SB-5(1-2)-170328 | T | Solid | 3546 | |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | T | Solid | 3546 | |
| Prep Batch: 460-427308 | | | | | |
| LCS 460-427308/2-A | Lab Control Sample | T | Solid | 3546 | |
| MB 460-427308/1-A | Method Blank | T | Solid | 3546 | |
| 460-130306-A-11-A MS | Matrix Spike | T | Solid | 3546 | |
| 460-130306-A-11-B MSD | Matrix Spike Duplicate | T | Solid | 3546 | |
| 460-130460-1 | SB-8(1-2)-170328 | T | Solid | 3546 | |
| 460-130460-2 | SB-8A(4.5-5.5)-170328 | T | Solid | 3546 | |
| 460-130460-3 | SB-5(1-2)-170328 | T | Solid | 3546 | |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | T | Solid | 3546 | |

TestAmerica Edison

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|------------------------|--------------|---------------|--------|------------|
| GC Semi VOA | | | | | |
| Analysis Batch:460-427376 | | | | | |
| LCS 460-427308/2-A | Lab Control Sample | T | Solid | 8082A | 460-427308 |
| MB 460-427308/1-A | Method Blank | T | Solid | 8082A | 460-427308 |
| 460-130306-A-11-A MS | Matrix Spike | T | Solid | 8082A | 460-427308 |
| 460-130306-A-11-B MSD | Matrix Spike Duplicate | T | Solid | 8082A | 460-427308 |
| 460-130460-1 | SB-8(1-2)-170328 | T | Solid | 8082A | 460-427308 |
| 460-130460-2 | SB-8A(4.5-5.5)-170328 | T | Solid | 8082A | 460-427308 |
| 460-130460-3 | SB-5(1-2)-170328 | T | Solid | 8082A | 460-427308 |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | T | Solid | 8082A | 460-427308 |
| Analysis Batch:460-427379 | | | | | |
| LCS 460-427307/2-A | Lab Control Sample | T | Solid | 8081B | 460-427307 |
| MB 460-427307/1-A | Method Blank | T | Solid | 8081B | 460-427307 |
| 460-130105-G-1-G MS | Matrix Spike | T | Solid | 8081B | 460-427307 |
| 460-130105-G-1-H MSD | Matrix Spike Duplicate | T | Solid | 8081B | 460-427307 |
| 460-130460-1 | SB-8(1-2)-170328 | T | Solid | 8081B | 460-427307 |
| 460-130460-2 | SB-8A(4.5-5.5)-170328 | T | Solid | 8081B | 460-427307 |
| 460-130460-3 | SB-5(1-2)-170328 | T | Solid | 8081B | 460-427307 |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | T | Solid | 8081B | 460-427307 |

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|------------------------------------|--------------|---------------|--------|------------|
| Metals | | | | | |
| Prep Batch: 460-426917 | | | | | |
| LCS 460-426917/3-A | Lab Control Sample | T | Water | 7470A | |
| MB 460-426914/1-B | Method Blank | D | Water | 7470A | |
| 460-130340-A-4-B DU | Duplicate | D | Water | 7470A | |
| 460-130340-D-4-E MS | Matrix Spike | D | Water | 7470A | |
| 460-130460-5 | GW-5-170328 | D | Water | 7470A | |
| Analysis Batch:460-426971 | | | | | |
| LCS 460-426917/3-A | Lab Control Sample | T | Water | 7470A | 460-426917 |
| MB 460-426914/1-B | Method Blank | D | Water | 7470A | 460-426917 |
| 460-130340-A-4-B DU | Duplicate | D | Water | 7470A | 460-426917 |
| 460-130340-D-4-E MS | Matrix Spike | D | Water | 7470A | 460-426917 |
| 460-130460-5 | GW-5-170328 | D | Water | 7470A | 460-426917 |
| Prep Batch: 460-427055 | | | | | |
| LCSSRM 460-427055/11-A | ^2LCS-Certified Reference Material | T | Solid | 7471B | |
| MB 460-427055/10-A | Method Blank | T | Solid | 7471B | |
| 460-130460-1 | SB-8(1-2)-170328 | T | Solid | 7471B | |
| 460-130460-2 | SB-8A(4.5-5.5)-170328 | T | Solid | 7471B | |
| 460-130460-3 | SB-5(1-2)-170328 | T | Solid | 7471B | |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | T | Solid | 7471B | |
| 460-130548-A-12-B DU | Duplicate | T | Solid | 7471B | |
| 460-130548-A-12-C MS | Matrix Spike | T | Solid | 7471B | |
| 460-130548-A-12-D MSD | Matrix Spike Duplicate | T | Solid | 7471B | |
| Analysis Batch:460-427152 | | | | | |
| LCSSRM 460-427055/11-A | ^2LCS-Certified Reference Material | T | Solid | 7471B | 460-427055 |
| MB 460-427055/10-A | Method Blank | T | Solid | 7471B | 460-427055 |
| 460-130460-1 | SB-8(1-2)-170328 | T | Solid | 7471B | 460-427055 |
| 460-130460-2 | SB-8A(4.5-5.5)-170328 | T | Solid | 7471B | 460-427055 |
| 460-130460-3 | SB-5(1-2)-170328 | T | Solid | 7471B | 460-427055 |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | T | Solid | 7471B | 460-427055 |
| 460-130548-A-12-B DU | Duplicate | T | Solid | 7471B | 460-427055 |
| 460-130548-A-12-C MS | Matrix Spike | T | Solid | 7471B | 460-427055 |
| 460-130548-A-12-D MSD | Matrix Spike Duplicate | T | Solid | 7471B | 460-427055 |
| Prep Batch: 460-427165 | | | | | |
| LCS 460-427165/2-A | Lab Control Sample | T | Water | 7470A | |
| MB 460-427165/1-A | Method Blank | T | Water | 7470A | |
| 460-130460-5 | GW-5-170328 | T | Water | 7470A | |
| 460-130527-B-2-A DU | Duplicate | T | Water | 7470A | |
| 460-130527-E-2-B MS | Matrix Spike | T | Water | 7470A | |
| 460-130527-E-2-C MSD | Matrix Spike Duplicate | T | Water | 7470A | |

TestAmerica Edison

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|----------------------------------|--------------|---------------|--------|------------|
| Metals | | | | | |
| Analysis Batch:460-427250 | | | | | |
| LCS 460-427165/2-A | Lab Control Sample | T | Water | 7470A | 460-427165 |
| MB 460-427165/1-A | Method Blank | T | Water | 7470A | 460-427165 |
| 460-130460-5 | GW-5-170328 | T | Water | 7470A | 460-427165 |
| 460-130527-B-2-A DU | Duplicate | T | Water | 7470A | 460-427165 |
| 460-130527-E-2-B MS | Matrix Spike | T | Water | 7470A | 460-427165 |
| 460-130527-E-2-C MSD | Matrix Spike Duplicate | T | Water | 7470A | 460-427165 |
| Prep Batch: 460-427290 | | | | | |
| LCSSRM 460-427290/2-A ^4 | LCS-Certified Reference Material | T | Solid | 3050B | |
| MB 460-427290/1-A ^2 | Method Blank | T | Solid | 3050B | |
| 460-130460-1 | SB-8(1-2)-170328 | T | Solid | 3050B | |
| 460-130460-2 | SB-8A(4.5-5.5)-170328 | T | Solid | 3050B | |
| 460-130460-3 | SB-5(1-2)-170328 | T | Solid | 3050B | |
| 460-130548-A-12-H DU ^4 | Duplicate | T | Solid | 3050B | |
| 460-130548-B-12-B MS ^4 | Matrix Spike | T | Solid | 3050B | |
| Prep Batch: 460-427292 | | | | | |
| LCSSRM 460-427292/2-A ^4 | LCS-Certified Reference Material | T | Solid | 3050B | |
| MB 460-427292/1-A ^2 | Method Blank | T | Solid | 3050B | |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | T | Solid | 3050B | |
| 460-130460-4DU | Duplicate | T | Solid | 3050B | |
| 460-130460-4MS | Matrix Spike | T | Solid | 3050B | |
| Prep Batch: 460-427352 | | | | | |
| LCS 460-427352/2-A ^2 | Lab Control Sample | T | Water | 3010A | |
| MB 460-427352/1-A ^2 | Method Blank | T | Water | 3010A | |
| 460-130460-5 | GW-5-170328 | T | Water | 3010A | |
| 460-130527-B-2-B DU ^2 | Duplicate | T | Water | 3010A | |
| 460-130527-E-2-E MS ^2 | Matrix Spike | T | Water | 3010A | |
| Analysis Batch:460-427449 | | | | | |
| LCSSRM 460-427290/2-A ^4 | LCS-Certified Reference Material | T | Solid | 6010C | 460-427290 |
| MB 460-427290/1-A ^2 | Method Blank | T | Solid | 6010C | 460-427290 |
| 460-130548-A-12-H DU ^4 | Duplicate | T | Solid | 6010C | 460-427290 |
| 460-130548-B-12-B MS ^4 | Matrix Spike | T | Solid | 6010C | 460-427290 |
| Analysis Batch:460-427491 | | | | | |
| LCSSRM 460-427292/2-A ^4 | LCS-Certified Reference Material | T | Solid | 6010C | 460-427292 |
| MB 460-427292/1-A ^2 | Method Blank | T | Solid | 6010C | 460-427292 |
| 460-130460-1 | SB-8(1-2)-170328 | T | Solid | 6010C | 460-427290 |
| 460-130460-2 | SB-8A(4.5-5.5)-170328 | T | Solid | 6010C | 460-427290 |
| 460-130460-3 | SB-5(1-2)-170328 | T | Solid | 6010C | 460-427290 |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | T | Solid | 6010C | 460-427292 |
| 460-130460-4DU | Duplicate | T | Solid | 6010C | 460-427292 |
| 460-130460-4MS | Matrix Spike | T | Solid | 6010C | 460-427292 |

TestAmerica Edison

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|--------------------|--------------|---------------|--------|------------|
| Metals | | | | | |
| Analysis Batch:460-427865 | | | | | |
| LCS 460-427352/2-A ^2 | Lab Control Sample | T | Water | 6020A | 460-427352 |
| MB 460-427352/1-A ^2 | Method Blank | T | Water | 6020A | 460-427352 |
| 460-130460-5 | GW-5-170328 | T | Water | 6020A | 460-427352 |
| 460-130527-B-2-B DU ^2 | Duplicate | T | Water | 6020A | 460-427352 |
| 460-130527-E-2-E MS ^2 | Matrix Spike | T | Water | 6020A | 460-427352 |
| Analysis Batch:460-427907 | | | | | |
| 460-130460-5 | GW-5-170328 | T | Water | 6020A | 460-427352 |
| 460-130527-E-2-E MS ^2 | Matrix Spike | T | Water | 6020A | 460-427352 |
| Prep Batch: 460-428185 | | | | | |
| LCS 460-428185/2-A | Lab Control Sample | T | Water | 3010A | |
| MB 460-428185/1-A | Method Blank | T | Water | 3010A | |
| 460-130174-I-1-B DU ^2 | Duplicate | D | Water | 3010A | |
| 460-130174-I-1-C MS ^2 | Matrix Spike | D | Water | 3010A | |
| 460-130460-5 | GW-5-170328 | D | Water | 3010A | |
| Analysis Batch:460-428349 | | | | | |
| LCS 460-428185/2-A | Lab Control Sample | T | Water | 6020A | 460-428185 |
| MB 460-428185/1-A | Method Blank | T | Water | 6020A | 460-428185 |
| 460-130174-I-1-B DU ^2 | Duplicate | D | Water | 6020A | 460-428185 |
| 460-130174-I-1-C MS ^2 | Matrix Spike | D | Water | 6020A | 460-428185 |
| 460-130460-5 | GW-5-170328 | D | Water | 6020A | 460-428185 |

Report Basis

D = Dissolved

T = Total

General Chemistry

| | | | | | |
|----------------------------------|-----------------------|---|-------|----------|--|
| Analysis Batch:460-427149 | | | | | |
| 460-130460-1 | SB-8(1-2)-170328 | T | Solid | Moisture | |
| 460-130460-2 | SB-8A(4.5-5.5)-170328 | T | Solid | Moisture | |
| 460-130460-3 | SB-5(1-2)-170328 | T | Solid | Moisture | |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | T | Solid | Moisture | |
| 460-130463-G-7 DU | Duplicate | T | Solid | Moisture | |

Report Basis

T = Total

TestAmerica Edison

Client: AKRF Inc

Job Number: 460-130460-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Solid

| Lab Sample ID | Client Sample ID | DCA %Rec | BFB %Rec | DBFM %Rec | TOL %Rec |
|--------------------|---------------------------|-------------|-------------|--------------|-------------|
| 460-130460-1 | SB-8(1-2)-170328 | 82 | 77 | 82 | 79 |
| 460-130460-2 | SB-8A(4.5-5.5) -170328 | 84 | 81 | 84 | 81 |
| 460-130460-3 | SB-5(1-2)-170328 | 94 | 90 | 96 | 92 |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | 95 | 90 | 97 | 93 |
| MB 460-427237/7 | | 98 | 109 | 108 | 97 |
| MB 460-427517/7 | | 88 | 88 | 89 | 90 |
| LB3 460-426857/1-A | | 90 | 106 | 101 | 95 |
| LCS 460-427237/3 | | 92 | 104 | 103 | 97 |
| LCS 460-427517/5 | | 81 | 81 | 83 | 82 |
| LCSD 460-427237/4 | | 92 | 106 | 105 | 99 |
| LCSD 460-427517/27 | | 89 | 89 | 90 | 88 |

| Surrogate | Acceptance Limits |
|------------------------------------|-------------------|
| DCA = 1,2-Dichloroethane-d4 (Surr) | 78-135 |
| BFB = 4-Bromofluorobenzene | 67-126 |
| DBFM = Dibromofluoromethane (Surr) | 61-149 |
| TOL = Toluene-d8 (Surr) | 73-121 |

Client: AKRF Inc

Job Number: 460-130460-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Water

| Lab Sample ID | Client Sample ID | DCA %Rec | BFB %Rec | DBFM %Rec | TOL %Rec |
|-------------------|------------------|-------------|-------------|--------------|-------------|
| 460-130460-5 | GW-5-170328 | 111 | 101 | 107 | 94 |
| MB 460-427366/7 | | 116 | 108 | 112 | 103 |
| LCS 460-427366/4 | | 108 | 106 | 104 | 98 |
| LCSD 460-427366/5 | | 107 | 104 | 104 | 96 |

| Surrogate | Acceptance Limits |
|------------------------------------|-------------------|
| DCA = 1,2-Dichloroethane-d4 (Surr) | 74-132 |
| BFB = 4-Bromofluorobenzene | 77-124 |
| DBFM = Dibromofluoromethane (Surr) | 72-131 |
| TOL = Toluene-d8 (Surr) | 80-120 |

Client: AKRF Inc

Job Number: 460-130460-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

| Lab Sample ID | Client Sample ID | TBP %Rec | FBP %Rec | 2FP %Rec | NBZ %Rec | PHL %Rec | TPHL %Rec |
|-------------------------|---------------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| 460-130460-1 | SB-8(1-2)-170328 | 94 | 76 | 76 | 80 | 82 | 94 |
| 460-130460-2 | SB-8A(4.5-5.5) -170328 | 25 | 65 | 50 | 61 | 56 | 78 |
| 460-130460-3 | SB-5(1-2)-170328 | 76 | 69 | 67 | 70 | 73 | 85 |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | 75 | 65 | 64 | 66 | 69 | 79 |
| MB 460-427151/1-A | | 85 | 69 | 71 | 72 | 75 | 84 |
| LCS 460-427151/2-A | | 103 | 86 | 86 | 86 | 90 | 104 |
| LCS 460-427151/3-A | | 97 | 79 | 82 | 84 | 85 | 104 |
| 460-130122-A-1-B MS | | 68 | 72 | 64 | 70 | 69 | 79 |
| 460-130122-A-1-C MSD | | 75 | 69 | 63 | 70 | 66 | 88 |

| Surrogate | Acceptance Limits |
|-----------------------------------|-------------------|
| TBP = 2,4,6-Tribromophenol (Surr) | 10-103 |
| FBP = 2-Fluorobiphenyl | 38-95 |
| 2FP = 2-Fluorophenol (Surr) | 25-92 |
| NBZ = Nitrobenzene-d5 (Surr) | 37-94 |
| PHL = Phenol-d5 (Surr) | 32-91 |
| TPHL = Terphenyl-d14 (Surr) | 24-109 |

Client: AKRF Inc

Job Number: 460-130460-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

| Lab Sample ID | Client Sample ID | TBP %Rec | FBP %Rec | 2FP %Rec | NBZ %Rec | PHL %Rec | TPHL %Rec |
|------------------------|------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| 460-130460-5 | GW-5-170328 | 79 | 90 | 44 | 87 | 28 | 79 |
| MB 460-426877/1-A | | 82 | 87 | 42 | 93 | 26 | 83 |
| LCS 460-426877/2-A | | 84 | 86 | 35 | 88 | 22 | 77 |
| LCS 460-426877/4-A | | 77 | 84 | 33 | 89 | 19 | 77 |
| LCSD 460-426877/3-A | | 84 | 88 | 33 | 92 | 21 | 78 |
| LCSD 460-426877/5-A | | 76 | 82 | 34 | 87 | 19 | 87 |

| Surrogate | Acceptance Limits |
|-----------------------------------|-------------------|
| TBP = 2,4,6-Tribromophenol (Surr) | 26-139 |
| FBP = 2-Fluorobiphenyl | 45-107 |
| 2FP = 2-Fluorophenol (Surr) | 25-58 |
| NBZ = Nitrobenzene-d5 (Surr) | 51-108 |
| PHL = Phenol-d5 (Surr) | 14-39 |
| TPHL = Terphenyl-d14 (Surr) | 40-148 |

Client: AKRF Inc

Job Number: 460-130460-1

Surrogate Recovery Report

8081B Organochlorine Pesticides (GC)

Client Matrix: Solid

| Lab Sample ID | Client Sample ID | DCBP1 %Rec | DCBP2 %Rec | TCX1 %Rec | TCX2 %Rec |
|-------------------------|---------------------------|---------------|---------------|--------------|--------------|
| 460-130460-1 | SB-8(1-2)-170328 | 94 | 100 | 92 | 94 |
| 460-130460-2 | SB-8A(4.5-5.5) -170328 | 95 | 101 | 95 | 93 |
| 460-130460-3 | SB-5(1-2)-170328 | 96 | 100 | 94 | 96 |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | 95 | 98 | 92 | 94 |
| MB 460-427307/1-A | | 102 | 93 | 97 | 102 |
| LCS 460-427307/2-A | | 89 | 89 | 87 | 87 |
| 460-130105-G-1-G MS | | 91 | 96 | 91 | 88 |
| 460-130105-G-1-H MSD | | 86 | 88 | 86 | 88 |

| Surrogate | Acceptance Limits |
|-------------------------------|-------------------|
| DCBP = DCB Decachlorobiphenyl | 50-150 |
| TCX = Tetrachloro-m-xylene | 47-150 |

Client: AKRF Inc

Job Number: 460-130460-1

Surrogate Recovery Report

8081B Organochlorine Pesticides (GC)

Client Matrix: Water

| Lab Sample ID | Client Sample ID | DCBP1 %Rec | DCBP2 %Rec | TCX1 %Rec | TCX2 %Rec |
|-----------------------|------------------|---------------|---------------|--------------|--------------|
| 460-130460-5 | GW-5-170328 | 36 | 37 | 36 | 37 |
| MB 460-426997/1-A | | 95 | 100 | 79 | 82 |
| LCS 460-426997/2-A | | 70 | 74 | 84 | 84 |
| LCS 460-426997/3-A | | 71 | 73 | 85 | 82 |

| Surrogate | Acceptance Limits |
|-------------------------------|-------------------|
| DCBP = DCB Decachlorobiphenyl | 10-150 |
| TCX = Tetrachloro-m-xylene | 16-150 |

Client: AKRF Inc

Job Number: 460-130460-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

| Lab Sample ID | Client Sample ID | DCBP1 %Rec | DCBP2 %Rec |
|--------------------------|---------------------------|---------------|---------------|
| 460-130460-1 | SB-8(1-2)-170328 | 109 | 96 |
| 460-130460-2 | SB-8A(4.5-5.5) -170328 | 111 | 101 |
| 460-130460-3 | SB-5(1-2)-170328 | 107 | 93 |
| 460-130460-4 | SB-5(4.5-5.5)-170328 | 112 | 97 |
| MB 460-427308/1-A | | 122 | 111 |
| LCS 460-427308/2-A | | 105 | 95 |
| 460-130306-A-11-A MS | | 110 | 99 |
| 460-130306-A-11-B MSD | | 110 | 99 |

| | |
|-------------------------------|-------------------|
| Surrogate | Acceptance Limits |
| DCBP = DCB Decachlorobiphenyl | 35-150 |

Client: AKRF Inc

Job Number: 460-130460-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Water

| Lab Sample ID | Client Sample ID | DCBP1 %Rec | DCBP2 %Rec |
|------------------------|------------------|---------------|---------------|
| 460-130460-5 | GW-5-170328 | 61 | 61 |
| MB 460-426998/1-A | | 70 | 63 |
| LCS 460-426998/2-A | | 67 | 66 |
| LCSD 460-426998/3-A | | 68 | 63 |

| Surrogate | Acceptance Limits |
|-------------------------------|-------------------|
| DCBP = DCB Decachlorobiphenyl | 10-150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Neutral Leach or MeOH Extraction Blank - Batch: 460-426857

**Method: 8260C
Preparation: 5035**

| | | |
|-----------------------------------|----------------------------|----------------------------|
| Lab Sample ID: LB3 460-426857/1-A | Analysis Batch: 460-427237 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: 460-426857 | Lab File ID: K65760.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 g |
| Analysis Date: 03/30/2017 2243 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: 03/29/2017 0646 | | |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------------------|--------|------|------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.38 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.44 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.41 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.32 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.47 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | 20 | U | 6.4 | 20 |
| 2-Butanone (MEK) | 5.0 | U | 0.77 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.94 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 2.2 | 5.0 |
| Acetone | 2.59 | J | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.20 | 1.0 |
| Bromoform | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | 1.0 | U | 0.32 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.43 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.43 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | 1.0 | U | 0.35 | 1.0 |
| Chloroform | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | 1.0 | U | 0.38 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | 1.0 | U | 0.46 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.38 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.32 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | 5.0 | U | 0.90 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.50 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.32 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.11 | 1.0 |
| o-Xylene | 1.0 | U | 0.16 | 1.0 |
| Styrene | 1.0 | U | 0.15 | 1.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Neutral Leach or MeOH Extraction Blank - Batch: 460-426857

**Method: 8260C
Preparation: 5035**

| | | |
|-----------------------------------|----------------------------|----------------------------|
| Lab Sample ID: LB3 460-426857/1-A | Analysis Batch: 460-427237 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: 460-426857 | Lab File ID: K65760.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 g |
| Analysis Date: 03/30/2017 2243 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: 03/29/2017 0646 | | |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|------|-----|
| Tetrachloroethene | 1.0 | U | 0.28 | 1.0 |
| Toluene | 1.0 | U | 0.19 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.39 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.10 | 1.0 |
| Trichloroethene | 1.0 | U | 0.26 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.34 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.39 | 1.0 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------------|-------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 90 | 78 - 135 |
| 4-Bromofluorobenzene | 106 | 67 - 126 |
| Dibromofluoromethane (Surr) | 101 | 61 - 149 |
| Toluene-d8 (Surr) | 95 | 73 - 121 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-427237

**Method: 8260C
Preparation: N/A**

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Lab Sample ID: MB 460-427237/7 | Analysis Batch: 460-427237 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65754.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/30/2017 2019 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------------------|--------|------|------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.38 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.44 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.41 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.32 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.47 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | 20 | U | 6.4 | 20 |
| 2-Butanone (MEK) | 5.0 | U | 0.77 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.94 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 2.2 | 5.0 |
| Acetone | 2.30 | J | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.20 | 1.0 |
| Bromoform | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | 1.0 | U | 0.32 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.43 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.43 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | 1.0 | U | 0.35 | 1.0 |
| Chloroform | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | 1.0 | U | 0.38 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | 1.0 | U | 0.46 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.38 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.32 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | 5.0 | U | 0.90 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.50 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.32 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.11 | 1.0 |
| o-Xylene | 1.0 | U | 0.16 | 1.0 |
| Styrene | 1.0 | U | 0.15 | 1.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-427237

**Method: 8260C
Preparation: N/A**

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Lab Sample ID: MB 460-427237/7 | Analysis Batch: 460-427237 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65754.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/30/2017 2019 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|------|-----|
| Tetrachloroethene | 1.0 | U | 0.28 | 1.0 |
| Toluene | 1.0 | U | 0.19 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.39 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.10 | 1.0 |
| Trichloroethene | 1.0 | U | 0.26 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.34 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.39 | 1.0 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------------|-------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 98 | 78 - 135 |
| 4-Bromofluorobenzene | 109 | 67 - 126 |
| Dibromofluoromethane (Surr) | 108 | 61 - 149 |
| Toluene-d8 (Surr) | 97 | 73 - 121 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427237 **Method: 8260C**
Preparation: N/A

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-427237/3 | Analysis Batch: 460-427237 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65750.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/30/2017 1843 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-427237/4 | Analysis Batch: 460-427237 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65751.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/30/2017 1907 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|---------------------------------------|--------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 1,1,1-Trichloroethane | 98 | 105 | 80 - 125 | 8 | 30 | | |
| 1,1,2,2-Tetrachloroethane | 93 | 100 | 72 - 131 | 8 | 30 | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 108 | 111 | 78 - 132 | 3 | 30 | | |
| 1,1,2-Trichloroethane | 93 | 103 | 76 - 124 | 10 | 30 | | |
| 1,1-Dichloroethane | 94 | 98 | 80 - 124 | 4 | 30 | | |
| 1,1-Dichloroethene | 101 | 104 | 79 - 132 | 2 | 30 | | |
| 1,2,3-Trichlorobenzene | 100 | 103 | 75 - 123 | 3 | 30 | | |
| 1,2,4-Trichlorobenzene | 99 | 104 | 74 - 124 | 5 | 30 | | |
| 1,2-Dibromo-3-Chloropropane | 80 | 88 | 65 - 129 | 10 | 30 | | |
| 1,2-Dichlorobenzene | 97 | 104 | 80 - 121 | 7 | 30 | | |
| 1,2-Dichloroethane | 92 | 98 | 68 - 120 | 6 | 30 | | |
| 1,2-Dichloropropane | 96 | 103 | 77 - 124 | 7 | 30 | | |
| 1,3-Dichlorobenzene | 97 | 103 | 79 - 124 | 6 | 30 | | |
| 1,4-Dichlorobenzene | 97 | 103 | 79 - 121 | 6 | 30 | | |
| 1,4-Dioxane | 99 | 104 | 67 - 150 | 5 | 30 | | |
| 2-Butanone (MEK) | 106 | 113 | 61 - 140 | 7 | 30 | | |
| 2-Hexanone | 100 | 108 | 78 - 120 | 8 | 30 | | |
| 4-Methyl-2-pentanone (MIBK) | 104 | 115 | 80 - 120 | 10 | 30 | | |
| Acetone | 95 | 96 | 75 - 120 | 1 | 30 | | |
| Benzene | 94 | 101 | 75 - 127 | 7 | 30 | | |
| Bromoform | 97 | 109 | 19 - 150 | 12 | 30 | | |
| Bromomethane | 86 | 86 | 59 - 136 | 0 | 30 | | |
| Carbon disulfide | 101 | 103 | 74 - 130 | 3 | 30 | | |
| Carbon tetrachloride | 97 | 104 | 77 - 138 | 6 | 30 | | |
| Chlorobenzene | 97 | 105 | 80 - 120 | 8 | 30 | | |
| Chlorobromomethane | 101 | 104 | 80 - 125 | 3 | 30 | | |
| Chlorodibromomethane | 95 | 102 | 67 - 143 | 7 | 30 | | |
| Chloroethane | 89 | 87 | 50 - 139 | 2 | 30 | | |
| Chloroform | 97 | 102 | 80 - 122 | 4 | 30 | | |
| Chloromethane | 90 | 89 | 66 - 128 | 1 | 30 | | |
| cis-1,2-Dichloroethene | 100 | 106 | 80 - 123 | 6 | 30 | | |
| cis-1,3-Dichloropropene | 90 | 96 | 75 - 124 | 6 | 30 | | |
| Cyclohexane | 102 | 107 | 67 - 135 | 5 | 30 | | |
| Dichlorobromomethane | 97 | 104 | 76 - 129 | 7 | 30 | | |
| Dichlorodifluoromethane | 106 | 101 | 72 - 127 | 5 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427237 **Method: 8260C**
Preparation: N/A

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-427237/3 | Analysis Batch: 460-427237 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65750.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/30/2017 1843 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-427237/4 | Analysis Batch: 460-427237 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65751.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/30/2017 1907 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------------|------------------|-------------------|--------------------------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Ethylbenzene | 99 | 107 | 79 - 124 | 8 | 30 | | |
| Ethylene Dibromide | 98 | 100 | 80 - 122 | 2 | 30 | | |
| Isopropylbenzene | 102 | 112 | 80 - 125 | 10 | 30 | | |
| Methyl acetate | 88 | 93 | 73 - 123 | 5 | 30 | | |
| Methyl tert-butyl ether | 97 | 104 | 80 - 120 | 7 | 30 | | |
| Methylcyclohexane | 101 | 104 | 71 - 137 | 3 | 30 | | |
| Methylene Chloride | 98 | 102 | 79 - 128 | 4 | 30 | | |
| m-Xylene & p-Xylene | 97 | 108 | 79 - 121 | 11 | 30 | | |
| o-Xylene | 101 | 112 | 79 - 123 | 10 | 30 | | |
| Styrene | 98 | 108 | 78 - 123 | 10 | 30 | | |
| Tetrachloroethene | 106 | 114 | 73 - 130 | 8 | 30 | | |
| Toluene | 96 | 104 | 75 - 122 | 7 | 30 | | |
| trans-1,2-Dichloroethene | 98 | 104 | 80 - 129 | 6 | 30 | | |
| trans-1,3-Dichloropropene | 90 | 94 | 72 - 121 | 4 | 30 | | |
| Trichloroethene | 99 | 103 | 79 - 122 | 5 | 30 | | |
| Trichlorofluoromethane | 98 | 100 | 68 - 136 | 1 | 30 | | |
| Vinyl chloride | 94 | 93 | 70 - 134 | 0 | 30 | | |
| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 92 | 92 | 78 - 135 | | | | |
| 4-Bromofluorobenzene | 104 | 106 | 67 - 126 | | | | |
| Dibromofluoromethane (Surr) | 103 | 105 | 61 - 149 | | | | |
| Toluene-d8 (Surr) | 97 | 99 | 73 - 121 | | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-427366

**Method: 8260C
Preparation: 5030C**

Lab Sample ID: MB 460-427366/7
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/31/2017 1135
 Prep Date: 03/31/2017 1135
 Leach Date: N/A

Analysis Batch: 460-427366
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CVOAMS8
 Lab File ID: J53149.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------------------|--------|------|-------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.19 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.080 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.24 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.34 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.35 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.27 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.23 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.22 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.25 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.18 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dioxane | 50 | U | 8.7 | 50 |
| 2-Butanone (MEK) | 5.0 | U | 2.2 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.72 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 0.63 | 5.0 |
| Acetone | 5.0 | U | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.090 | 1.0 |
| Bromoform | 1.0 | U | 0.18 | 1.0 |
| Bromomethane | 1.0 | U | 0.18 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.22 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.33 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.24 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.30 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.22 | 1.0 |
| Chloroethane | 1.0 | U | 0.37 | 1.0 |
| Chloroform | 1.0 | U | 0.22 | 1.0 |
| Chloromethane | 1.0 | U | 0.22 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.26 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.16 | 1.0 |
| Cyclohexane | 1.0 | U | 0.26 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.15 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.14 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.30 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.19 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.32 | 1.0 |
| Methyl acetate | 5.0 | U | 0.58 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.13 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.22 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.21 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.28 | 1.0 |
| o-Xylene | 1.0 | U | 0.32 | 1.0 |
| Styrene | 1.0 | U | 0.17 | 1.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-427366

**Method: 8260C
Preparation: 5030C**

Lab Sample ID: MB 460-427366/7
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/31/2017 1135
 Prep Date: 03/31/2017 1135
 Leach Date: N/A

Analysis Batch: 460-427366
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CVOAMS8
 Lab File ID: J53149.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|-------|-----|
| Tetrachloroethene | 1.0 | U | 0.12 | 1.0 |
| Toluene | 1.0 | U | 0.25 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.18 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.19 | 1.0 |
| Trichloroethene | 1.0 | U | 0.22 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.15 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.060 | 1.0 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------------|-------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 116 | 74 - 132 |
| 4-Bromofluorobenzene | 108 | 77 - 124 |
| Dibromofluoromethane (Surr) | 112 | 72 - 131 |
| Toluene-d8 (Surr) | 103 | 80 - 120 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427366 **Method: 8260C**
Preparation: 5030C

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-427366/4 | Analysis Batch: 460-427366 | Instrument ID: CVOAMS8 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: J53146.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 1016 | Units: ug/L | Final Weight/Volume: 5 mL |
| Prep Date: 03/31/2017 1016 | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-427366/5 | Analysis Batch: 460-427366 | Instrument ID: CVOAMS8 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: J53147.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 1043 | Units: ug/L | Final Weight/Volume: 5 mL |
| Prep Date: 03/31/2017 1043 | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|---------------------------------------|--------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 1,1,1-Trichloroethane | 106 | 110 | 75 - 125 | 3 | 30 | | |
| 1,1,2,2-Tetrachloroethane | 97 | 98 | 74 - 120 | 1 | 30 | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 107 | 110 | 59 - 150 | 2 | 30 | | |
| 1,1,2-Trichloroethane | 98 | 99 | 78 - 120 | 2 | 30 | | |
| 1,1-Dichloroethane | 107 | 109 | 77 - 123 | 2 | 30 | | |
| 1,1-Dichloroethene | 106 | 104 | 74 - 123 | 2 | 30 | | |
| 1,2,3-Trichlorobenzene | 112 | 117 | 78 - 131 | 4 | 30 | | |
| 1,2,4-Trichlorobenzene | 106 | 110 | 80 - 124 | 3 | 30 | | |
| 1,2-Dibromo-3-Chloropropane | 95 | 105 | 55 - 134 | 10 | 30 | | |
| 1,2-Dichlorobenzene | 106 | 107 | 80 - 120 | 1 | 30 | | |
| 1,2-Dichloroethane | 115 | 116 | 76 - 121 | 1 | 30 | | |
| 1,2-Dichloropropane | 103 | 104 | 77 - 123 | 1 | 30 | | |
| 1,3-Dichlorobenzene | 107 | 107 | 80 - 120 | 0 | 30 | | |
| 1,4-Dichlorobenzene | 105 | 107 | 80 - 120 | 1 | 30 | | |
| 1,4-Dioxane | 147 | 169 | 10 - 150 | 14 | 30 | | * |
| 2-Butanone (MEK) | 102 | 99 | 64 - 120 | 3 | 30 | | |
| 2-Hexanone | 90 | 96 | 71 - 125 | 7 | 30 | | |
| 4-Methyl-2-pentanone (MIBK) | 99 | 104 | 78 - 124 | 4 | 30 | | |
| Acetone | 102 | 116 | 39 - 150 | 12 | 30 | | |
| Benzene | 105 | 108 | 77 - 121 | 2 | 30 | | |
| Bromoform | 106 | 107 | 53 - 120 | 0 | 30 | | |
| Bromomethane | 98 | 101 | 10 - 150 | 3 | 30 | | |
| Carbon disulfide | 106 | 110 | 69 - 133 | 4 | 30 | | |
| Carbon tetrachloride | 108 | 113 | 70 - 132 | 4 | 30 | | |
| Chlorobenzene | 100 | 100 | 80 - 120 | 0 | 30 | | |
| Chlorobromomethane | 108 | 107 | 77 - 127 | 1 | 30 | | |
| Chlorodibromomethane | 98 | 101 | 73 - 120 | 3 | 30 | | |
| Chloroethane | 116 | 124 | 52 - 150 | 7 | 30 | | |
| Chloroform | 112 | 114 | 80 - 120 | 1 | 30 | | |
| Chloromethane | 97 | 100 | 56 - 131 | 3 | 30 | | |
| cis-1,2-Dichloroethene | 100 | 104 | 80 - 120 | 4 | 30 | | |
| cis-1,3-Dichloropropene | 98 | 99 | 77 - 120 | 1 | 30 | | |
| Cyclohexane | 100 | 104 | 56 - 150 | 4 | 30 | | |
| Dichlorobromomethane | 105 | 109 | 76 - 120 | 4 | 30 | | |
| Dichlorodifluoromethane | 95 | 104 | 50 - 131 | 9 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample/

Method: 8260C

Lab Control Sample Duplicate Recovery Report - Batch: 460-427366

Preparation: 5030C

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-427366/4 | Analysis Batch: 460-427366 | Instrument ID: CVOAMS8 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: J53146.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 1016 | Units: ug/L | Final Weight/Volume: 5 mL |
| Prep Date: 03/31/2017 1016 | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-427366/5 | Analysis Batch: 460-427366 | Instrument ID: CVOAMS8 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: J53147.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 1043 | Units: ug/L | Final Weight/Volume: 5 mL |
| Prep Date: 03/31/2017 1043 | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------------|------------------|-------------------|--------------------------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Ethylbenzene | 95 | 99 | 80 - 120 | 4 | 30 | | |
| Ethylene Dibromide | 99 | 99 | 80 - 120 | 0 | 30 | | |
| Isopropylbenzene | 103 | 105 | 80 - 123 | 2 | 30 | | |
| Methyl acetate | 119 | 121 | 66 - 144 | 1 | 30 | | |
| Methyl tert-butyl ether | 104 | 109 | 79 - 122 | 5 | 30 | | |
| Methylcyclohexane | 99 | 102 | 61 - 145 | 3 | 30 | | |
| Methylene Chloride | 102 | 107 | 77 - 123 | 5 | 30 | | |
| m-Xylene & p-Xylene | 96 | 98 | 80 - 120 | 2 | 30 | | |
| o-Xylene | 97 | 98 | 80 - 120 | 1 | 30 | | |
| Styrene | 97 | 97 | 80 - 120 | 0 | 30 | | |
| Tetrachloroethene | 106 | 103 | 78 - 122 | 3 | 30 | | |
| Toluene | 102 | 105 | 80 - 120 | 3 | 30 | | |
| trans-1,2-Dichloroethene | 99 | 104 | 79 - 120 | 5 | 30 | | |
| trans-1,3-Dichloropropene | 94 | 95 | 76 - 120 | 1 | 30 | | |
| Trichloroethene | 99 | 103 | 77 - 120 | 3 | 30 | | |
| Trichlorofluoromethane | 123 | 125 | 71 - 143 | 2 | 30 | | |
| Vinyl chloride | 108 | 116 | 62 - 138 | 7 | 30 | | |
| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 108 | 107 | 74 - 132 | | | | |
| 4-Bromofluorobenzene | 106 | 104 | 77 - 124 | | | | |
| Dibromofluoromethane (Surr) | 104 | 104 | 72 - 131 | | | | |
| Toluene-d8 (Surr) | 98 | 96 | 80 - 120 | | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-427517

**Method: 8260C
Preparation: N/A**

| | | | | | |
|----------------|-----------------|-----------------|------------|------------------------|----------|
| Lab Sample ID: | MB 460-427517/7 | Analysis Batch: | 460-427517 | Instrument ID: | CVOAMS4 |
| Client Matrix: | Solid | Prep Batch: | N/A | Lab File ID: | D34553.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 5 mL |
| Analysis Date: | 03/31/2017 2217 | Units: | ug/Kg | Final Weight/Volume: | 5 mL |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------------------|--------|------|------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.38 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.44 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.41 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.32 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.47 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | 20 | U | 6.4 | 20 |
| 2-Butanone (MEK) | 5.0 | U | 0.77 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.94 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 2.2 | 5.0 |
| Acetone | 1.82 | J | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.20 | 1.0 |
| Bromoform | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | 1.0 | U | 0.32 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.43 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.43 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | 1.0 | U | 0.35 | 1.0 |
| Chloroform | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | 1.0 | U | 0.38 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | 1.0 | U | 0.46 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.38 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.32 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | 5.0 | U | 0.90 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.50 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.32 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.11 | 1.0 |
| o-Xylene | 1.0 | U | 0.16 | 1.0 |
| Styrene | 1.0 | U | 0.15 | 1.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-427517

**Method: 8260C
Preparation: N/A**

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Lab Sample ID: MB 460-427517/7 | Analysis Batch: 460-427517 | Instrument ID: CVOAMS4 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: D34553.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 2217 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|------|-----|
| Tetrachloroethene | 1.0 | U | 0.28 | 1.0 |
| Toluene | 1.0 | U | 0.19 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.39 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.10 | 1.0 |
| Trichloroethene | 1.0 | U | 0.26 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.34 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.39 | 1.0 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------------|-------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 88 | 78 - 135 |
| 4-Bromofluorobenzene | 88 | 67 - 126 |
| Dibromofluoromethane (Surr) | 89 | 61 - 149 |
| Toluene-d8 (Surr) | 90 | 73 - 121 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427517 **Method: 8260C**
Preparation: N/A

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-427517/5 | Analysis Batch: 460-427517 | Instrument ID: CVOAMS4 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: D34551.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 2127 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| | | |
|--|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-427517/27 | Analysis Batch: 460-427517 | Instrument ID: CVOAMS4 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: D34573.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/01/2017 0629 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|---------------------------------------|--------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 1,1,1-Trichloroethane | 102 | 101 | 80 - 125 | 1 | 30 | | |
| 1,1,2,2-Tetrachloroethane | 91 | 93 | 72 - 131 | 1 | 30 | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 113 | 113 | 78 - 132 | 0 | 30 | | |
| 1,1,2-Trichloroethane | 88 | 95 | 76 - 124 | 8 | 30 | | |
| 1,1-Dichloroethane | 94 | 96 | 80 - 124 | 2 | 30 | | |
| 1,1-Dichloroethene | 100 | 102 | 79 - 132 | 2 | 30 | | |
| 1,2,3-Trichlorobenzene | 96 | 96 | 75 - 123 | 1 | 30 | | |
| 1,2,4-Trichlorobenzene | 97 | 95 | 74 - 124 | 3 | 30 | | |
| 1,2-Dibromo-3-Chloropropane | 91 | 88 | 65 - 129 | 4 | 30 | | |
| 1,2-Dichlorobenzene | 94 | 97 | 80 - 121 | 2 | 30 | | |
| 1,2-Dichloroethane | 89 | 100 | 68 - 120 | 11 | 30 | | |
| 1,2-Dichloropropane | 91 | 99 | 77 - 124 | 8 | 30 | | |
| 1,3-Dichlorobenzene | 95 | 97 | 79 - 124 | 2 | 30 | | |
| 1,4-Dichlorobenzene | 92 | 95 | 79 - 121 | 3 | 30 | | |
| 1,4-Dioxane | 79 | 82 | 67 - 150 | 4 | 30 | | |
| 2-Butanone (MEK) | 78 | 97 | 61 - 140 | 21 | 30 | | |
| 2-Hexanone | 81 | 94 | 78 - 120 | 15 | 30 | | |
| 4-Methyl-2-pentanone (MIBK) | 86 | 97 | 80 - 120 | 13 | 30 | | |
| Acetone | 82 | 87 | 75 - 120 | 6 | 30 | | |
| Benzene | 92 | 95 | 75 - 127 | 3 | 30 | | |
| Bromoform | 89 | 94 | 19 - 150 | 6 | 30 | | |
| Bromomethane | 98 | 106 | 59 - 136 | 8 | 30 | | |
| Carbon disulfide | 99 | 98 | 74 - 130 | 1 | 30 | | |
| Carbon tetrachloride | 104 | 103 | 77 - 138 | 1 | 30 | | |
| Chlorobenzene | 91 | 97 | 80 - 120 | 6 | 30 | | |
| Chlorobromomethane | 93 | 101 | 80 - 125 | 8 | 30 | | |
| Chlorodibromomethane | 86 | 94 | 67 - 143 | 9 | 30 | | |
| Chloroethane | 100 | 105 | 50 - 139 | 5 | 30 | | |
| Chloroform | 94 | 99 | 80 - 122 | 5 | 30 | | |
| Chloromethane | 88 | 87 | 66 - 128 | 1 | 30 | | |
| cis-1,2-Dichloroethene | 89 | 91 | 80 - 123 | 3 | 30 | | |
| cis-1,3-Dichloropropene | 87 | 95 | 75 - 124 | 9 | 30 | | |
| Cyclohexane | 111 | 108 | 67 - 135 | 2 | 30 | | |
| Dichlorobromomethane | 87 | 97 | 76 - 129 | 11 | 30 | | |
| Dichlorodifluoromethane | 86 | 87 | 72 - 127 | 1 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427517 **Method: 8260C**
Preparation: N/A

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-427517/5 | Analysis Batch: 460-427517 | Instrument ID: CVOAMS4 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: D34551.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 2127 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| | | |
|--|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-427517/27 | Analysis Batch: 460-427517 | Instrument ID: CVOAMS4 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: D34573.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/01/2017 0629 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|---------------------------|--------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Ethylbenzene | 96 | 99 | 79 - 124 | 3 | 30 | | |
| Ethylene Dibromide | 86 | 95 | 80 - 122 | 10 | 30 | | |
| Isopropylbenzene | 102 | 101 | 80 - 125 | 2 | 30 | | |
| Methyl acetate | 98 | 90 | 73 - 123 | 8 | 30 | | |
| Methyl tert-butyl ether | 98 | 97 | 80 - 120 | 0 | 30 | | |
| Methylcyclohexane | 112 | 108 | 71 - 137 | 3 | 30 | | |
| Methylene Chloride | 92 | 97 | 79 - 128 | 6 | 30 | | |
| m-Xylene & p-Xylene | 95 | 97 | 79 - 121 | 2 | 30 | | |
| o-Xylene | 98 | 98 | 79 - 123 | 1 | 30 | | |
| Styrene | 94 | 99 | 78 - 123 | 5 | 30 | | |
| Tetrachloroethene | 96 | 100 | 73 - 130 | 4 | 30 | | |
| Toluene | 93 | 98 | 75 - 122 | 4 | 30 | | |
| trans-1,2-Dichloroethene | 96 | 99 | 80 - 129 | 4 | 30 | | |
| trans-1,3-Dichloropropene | 87 | 92 | 72 - 121 | 6 | 30 | | |
| Trichloroethene | 91 | 98 | 79 - 122 | 7 | 30 | | |
| Trichlorofluoromethane | 103 | 108 | 68 - 136 | 5 | 30 | | |
| Vinyl chloride | 93 | 93 | 70 - 134 | 0 | 30 | | |

| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits |
|------------------------------|-----------|------------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 81 | 89 | 78 - 135 |
| 4-Bromofluorobenzene | 81 | 89 | 67 - 126 |
| Dibromofluoromethane (Surr) | 83 | 90 | 61 - 149 |
| Toluene-d8 (Surr) | 82 | 88 | 73 - 121 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-426877

**Method: 8270D
Preparation: 3510C**

Lab Sample ID: MB 460-426877/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/30/2017 0442
 Prep Date: 03/29/2017 0902
 Leach Date: N/A

Analysis Batch: 460-427021
 Prep Batch: 460-426877
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CBNAMS4
 Lab File ID: U333919.D
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 2 mL
 Injection Volume: 5 uL

| Analyte | Result | Qual | MDL | RL |
|------------------------------|--------|------|------|-----|
| 1,1'-Biphenyl | 10 | U | 0.63 | 10 |
| 1,2,4,5-Tetrachlorobenzene | 10 | U | 0.43 | 10 |
| 2,2'-oxybis[1-chloropropane] | 10 | U | 0.93 | 10 |
| 2,3,4,6-Tetrachlorophenol | 10 | U | 0.69 | 10 |
| 2,4,5-Trichlorophenol | 10 | U | 0.49 | 10 |
| 2,4,6-Trichlorophenol | 10 | U | 0.53 | 10 |
| 2,4-Dichlorophenol | 10 | U | 0.63 | 10 |
| 2,4-Dimethylphenol | 10 | U | 0.91 | 10 |
| 2,4-Dinitrophenol | 20 | U | 2.4 | 20 |
| 2,4-Dinitrotoluene | 2.0 | U | 1.0 | 2.0 |
| 2,6-Dinitrotoluene | 2.0 | U | 0.88 | 2.0 |
| 2-Chloronaphthalene | 10 | U | 0.61 | 10 |
| 2-Chlorophenol | 10 | U | 0.74 | 10 |
| 2-Methylnaphthalene | 10 | U | 0.88 | 10 |
| 2-Methylphenol | 10 | U | 1.3 | 10 |
| 2-Nitroaniline | 10 | U | 0.65 | 10 |
| 2-Nitrophenol | 10 | U | 0.59 | 10 |
| 3,3'-Dichlorobenzidine | 10 | U | 1.0 | 10 |
| 3-Nitroaniline | 10 | U | 0.82 | 10 |
| 4,6-Dinitro-2-methylphenol | 20 | U | 2.0 | 20 |
| 4-Bromophenyl phenyl ether | 10 | U | 1.0 | 10 |
| 4-Chloro-3-methylphenol | 10 | U | 0.76 | 10 |
| 4-Chloroaniline | 10 | U | 0.73 | 10 |
| 4-Chlorophenyl phenyl ether | 10 | U | 0.96 | 10 |
| 4-Methylphenol | 10 | U | 0.87 | 10 |
| 4-Nitroaniline | 10 | U | 0.48 | 10 |
| 4-Nitrophenol | 20 | U | 4.7 | 20 |
| Acenaphthene | 10 | U | 0.88 | 10 |
| Acenaphthylene | 10 | U | 0.65 | 10 |
| Acetophenone | 10 | U | 1.0 | 10 |
| Anthracene | 10 | U | 0.57 | 10 |
| Atrazine | 2.0 | U | 0.77 | 2.0 |
| Benzaldehyde | 10 | U | 0.86 | 10 |
| Benzo[a]anthracene | 1.0 | U | 0.55 | 1.0 |
| Benzo[a]pyrene | 1.0 | U | 0.16 | 1.0 |
| Benzo[b]fluoranthene | 1.0 | U | 0.44 | 1.0 |
| Benzo[g,h,i]perylene | 10 | U | 0.75 | 10 |
| Benzo[k]fluoranthene | 1.0 | U | 0.18 | 1.0 |
| Bis(2-chloroethoxy)methane | 10 | U | 0.69 | 10 |
| Bis(2-chloroethyl)ether | 1.0 | U | 0.12 | 1.0 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 0.72 | 2.0 |
| Butyl benzyl phthalate | 10 | U | 0.60 | 10 |
| Caprolactam | 10 | U | 1.1 | 10 |
| Carbazole | 10 | U | 0.85 | 10 |
| Chrysene | 2.0 | U | 0.67 | 2.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-426877

**Method: 8270D
Preparation: 3510C**

Lab Sample ID: MB 460-426877/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/30/2017 0442
 Prep Date: 03/29/2017 0902
 Leach Date: N/A

Analysis Batch: 460-427021
 Prep Batch: 460-426877
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CBNAMS4
 Lab File ID: U333919.D
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 2 mL
 Injection Volume: 5 uL

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|-------|-----|
| Dibenz(a,h)anthracene | 1.0 | U | 0.090 | 1.0 |
| Dibenzofuran | 10 | U | 0.85 | 10 |
| Diethyl phthalate | 10 | U | 1.0 | 10 |
| Dimethyl phthalate | 10 | U | 0.98 | 10 |
| Di-n-butyl phthalate | 10 | U | 0.82 | 10 |
| Di-n-octyl phthalate | 10 | U | 0.69 | 10 |
| Fluoranthene | 10 | U | 0.72 | 10 |
| Fluorene | 10 | U | 0.80 | 10 |
| Hexachlorobenzene | 1.0 | U | 0.47 | 1.0 |
| Hexachlorobutadiene | 1.0 | U | 0.76 | 1.0 |
| Hexachlorocyclopentadiene | 10 | U | 0.61 | 10 |
| Hexachloroethane | 1.0 | U | 0.090 | 1.0 |
| Indeno[1,2,3-cd]pyrene | 1.0 | U | 0.21 | 1.0 |
| Isophorone | 10 | U | 0.67 | 10 |
| Naphthalene | 10 | U | 0.80 | 10 |
| Nitrobenzene | 1.0 | U | 0.49 | 1.0 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 0.83 | 1.0 |
| N-Nitrosodiphenylamine | 10 | U | 0.74 | 10 |
| Pentachlorophenol | 20 | U | 2.2 | 20 |
| Phenanthrene | 10 | U | 0.65 | 10 |
| Phenol | 10 | U | 0.41 | 10 |
| Pyrene | 10 | U | 0.83 | 10 |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 82 | 26 - 139 |
| 2-Fluorobiphenyl | 87 | 45 - 107 |
| 2-Fluorophenol (Surr) | 42 | 25 - 58 |
| Nitrobenzene-d5 (Surr) | 93 | 51 - 108 |
| Phenol-d5 (Surr) | 26 | 14 - 39 |
| Terphenyl-d14 (Surr) | 83 | 40 - 148 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-426877

Method: 8270D

Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-426877/2-A | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-426877 | Lab File ID: U333920.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 0503 | Units: ug/L | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-426877/3-A | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-426877 | Lab File ID: U333921.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 0524 | Units: ug/L | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------------|--------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 1,1'-Biphenyl | 95 | 84 | 54 - 108 | 12 | 30 | | |
| 1,2,4,5-Tetrachlorobenzene | 95 | 91 | 46 - 105 | 4 | 30 | | |
| 2,2'-oxybis[1-chloropropane] | 83 | 86 | 50 - 108 | 3 | 30 | | |
| 2,3,4,6-Tetrachlorophenol | 93 | 92 | 57 - 122 | 1 | 30 | | |
| 2,4,5-Trichlorophenol | 93 | 90 | 59 - 117 | 3 | 30 | | |
| 2,4,6-Trichlorophenol | 100 | 89 | 62 - 120 | 12 | 30 | | |
| 2,4-Dichlorophenol | 85 | 85 | 62 - 102 | 1 | 30 | | |
| 2,4-Dimethylphenol | 75 | 75 | 61 - 95 | 0 | 30 | | |
| 2,4-Dinitrophenol | 73 | 81 | 45 - 125 | 10 | 30 | | |
| 2,4-Dinitrotoluene | 97 | 90 | 70 - 123 | 8 | 30 | | |
| 2,6-Dinitrotoluene | 95 | 98 | 68 - 121 | 3 | 30 | | |
| 2-Chloronaphthalene | 90 | 92 | 54 - 105 | 2 | 30 | | |
| 2-Chlorophenol | 75 | 72 | 54 - 92 | 4 | 30 | | |
| 2-Methylnaphthalene | 84 | 82 | 47 - 104 | 2 | 30 | | |
| 2-Methylphenol | 55 | 54 | 43 - 80 | 0 | 30 | | |
| 2-Nitroaniline | 93 | 89 | 46 - 124 | 5 | 30 | | |
| 2-Nitrophenol | 84 | 87 | 58 - 109 | 3 | 30 | | |
| 3,3'-Dichlorobenzidine | 94 | 98 | 68 - 123 | 4 | 30 | | |
| 3-Nitroaniline | 75 | 74 | 60 - 117 | 1 | 30 | | |
| 4,6-Dinitro-2-methylphenol | 86 | 98 | 59 - 132 | 13 | 30 | | |
| 4-Bromophenyl phenyl ether | 94 | 90 | 57 - 126 | 4 | 30 | | |
| 4-Chloro-3-methylphenol | 72 | 74 | 58 - 98 | 3 | 30 | | |
| 4-Chloroaniline | 71 | 73 | 51 - 108 | 4 | 30 | | |
| 4-Chlorophenyl phenyl ether | 94 | 99 | 60 - 114 | 5 | 30 | | |
| 4-Methylphenol | 51 | 41 | 34 - 78 | 20 | 30 | | |
| 4-Nitroaniline | 80 | 80 | 48 - 135 | 1 | 30 | | |
| 4-Nitrophenol | 25 | 25 | 11 - 47 | 2 | 30 | | |
| Acenaphthene | 81 | 85 | 58 - 107 | 5 | 30 | | |
| Acenaphthylene | 97 | 87 | 61 - 106 | 11 | 30 | | |
| Acetophenone | 92 | 93 | 54 - 115 | 1 | 30 | | |
| Anthracene | 93 | 102 | 70 - 118 | 9 | 30 | | |
| Benzo[a]anthracene | 99 | 98 | 73 - 119 | 2 | 30 | | |
| Benzo[a]pyrene | 101 | 102 | 76 - 125 | 1 | 30 | | |
| Benzo[b]fluoranthene | 99 | 108 | 78 - 123 | 9 | 30 | | |
| Benzo[g,h,i]perylene | 116 | 119 | 63 - 133 | 3 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-426877 **Method: 8270D**
Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-426877/2-A | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-426877 | Lab File ID: U333920.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 0503 | Units: ug/L | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-426877/3-A | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-426877 | Lab File ID: U333921.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 0524 | Units: ug/L | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|-----------------------------|--------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Benzo[k]fluoranthene | 97 | 93 | 71 - 126 | 4 | 30 | | |
| Bis(2-chloroethoxy)methane | 90 | 89 | 67 - 104 | 0 | 30 | | |
| Bis(2-chloroethyl)ether | 88 | 88 | 63 - 106 | 0 | 30 | | |
| Bis(2-ethylhexyl) phthalate | 101 | 99 | 63 - 135 | 2 | 30 | | |
| Butyl benzyl phthalate | 90 | 92 | 66 - 129 | 2 | 30 | | |
| Carbazole | 92 | 91 | 68 - 121 | 1 | 30 | | |
| Chrysene | 104 | 105 | 73 - 121 | 1 | 30 | | |
| Dibenz(a,h)anthracene | 112 | 115 | 59 - 136 | 2 | 30 | | |
| Dibenzofuran | 89 | 88 | 67 - 108 | 1 | 30 | | |
| Diethyl phthalate | 93 | 96 | 61 - 129 | 3 | 30 | | |
| Dimethyl phthalate | 88 | 92 | 65 - 121 | 5 | 30 | | |
| Di-n-butyl phthalate | 96 | 99 | 64 - 130 | 4 | 30 | | |
| Di-n-octyl phthalate | 106 | 108 | 64 - 131 | 2 | 30 | | |
| Fluoranthene | 96 | 99 | 66 - 123 | 3 | 30 | | |
| Fluorene | 95 | 86 | 67 - 112 | 9 | 30 | | |
| Hexachlorobenzene | 93 | 87 | 63 - 125 | 7 | 30 | | |
| Hexachlorobutadiene | 73 | 76 | 34 - 99 | 4 | 30 | | |
| Hexachlorocyclopentadiene | 97 | 88 | 18 - 99 | 9 | 30 | | |
| Hexachloroethane | 77 | 76 | 39 - 92 | 1 | 30 | | |
| Indeno[1,2,3-cd]pyrene | 128 | 133 | 57 - 142 | 4 | 30 | | |
| Isophorone | 82 | 84 | 55 - 105 | 2 | 30 | | |
| Naphthalene | 85 | 83 | 51 - 98 | 3 | 30 | | |
| Nitrobenzene | 83 | 92 | 56 - 106 | 9 | 30 | | |
| N-Nitrosodi-n-propylamine | 87 | 89 | 48 - 118 | 2 | 30 | | |
| N-Nitrosodiphenylamine | 93 | 88 | 69 - 118 | 5 | 30 | | |
| Pentachlorophenol | 83 | 87 | 54 - 120 | 5 | 30 | | |
| Phenanthrene | 95 | 94 | 70 - 117 | 0 | 30 | | |
| Phenol | 24 | 24 | 16 - 43 | 0 | 30 | | |
| Pyrene | 83 | 83 | 63 - 129 | 0 | 30 | | |

| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits |
|-----------------------------|-----------|------------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 84 | 84 | 26 - 139 |
| 2-Fluorobiphenyl | 86 | 88 | 45 - 107 |
| 2-Fluorophenol (Surr) | 35 | 33 | 25 - 58 |
| Nitrobenzene-d5 (Surr) | 88 | 92 | 51 - 108 |
| Phenol-d5 (Surr) | 22 | 21 | 14 - 39 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits |
|----------------------|-----------|------------|-------------------|
| Terphenyl-d14 (Surr) | 77 | 78 | 40 - 148 |

Lab Control Sample/ Method: 8270D
Lab Control Sample Duplicate Recovery Report - Batch: 460-426877 Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-426877/4-A | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-426877 | Lab File ID: U333922.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 0546 | Units: ug/L | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-426877/5-A | Analysis Batch: 460-427021 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-426877 | Lab File ID: U333923.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 0607 | Units: ug/L | Final Weight/Volume: 2 mL |
| Prep Date: 03/29/2017 0902 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| Analyte | <u>% Rec.</u> | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|--------------|---------------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Atrazine | 93 | 104 | 38 - 146 | 11 | 30 | | |
| Benzaldehyde | 86 | 87 | 46 - 111 | 1 | 30 | | |
| Caprolactam | 11 | 12 | 10 - 43 | 10 | 30 | | |

| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits |
|-----------------------------|-----------|------------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 77 | 76 | 26 - 139 |
| 2-Fluorobiphenyl | 84 | 82 | 45 - 107 |
| 2-Fluorophenol (Surr) | 33 | 34 | 25 - 58 |
| Nitrobenzene-d5 (Surr) | 89 | 87 | 51 - 108 |
| Phenol-d5 (Surr) | 19 | 19 | 14 - 39 |
| Terphenyl-d14 (Surr) | 77 | 87 | 40 - 148 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-427151

**Method: 8270D
Preparation: 3546**

Lab Sample ID: MB 460-427151/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/31/2017 0647
 Prep Date: 03/30/2017 1151
 Leach Date: N/A

Analysis Batch: 460-427310
 Prep Batch: 460-427151
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CBNAMS11
 Lab File ID: z4322967.D
 Initial Weight/Volume: 15.0000 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

| Analyte | Result | Qual | MDL | RL |
|------------------------------|--------|------|-----|-----|
| 1,1'-Biphenyl | 330 | U | 28 | 330 |
| 1,2,4,5-Tetrachlorobenzene | 330 | U | 25 | 330 |
| 2,2'-oxybis[1-chloropropane] | 330 | U | 14 | 330 |
| 2,3,4,6-Tetrachlorophenol | 330 | U | 31 | 330 |
| 2,4,5-Trichlorophenol | 330 | U | 33 | 330 |
| 2,4,6-Trichlorophenol | 130 | U | 9.4 | 130 |
| 2,4-Dichlorophenol | 130 | U | 7.8 | 130 |
| 2,4-Dimethylphenol | 330 | U | 73 | 330 |
| 2,4-Dinitrophenol | 270 | U | 250 | 270 |
| 2,4-Dinitrotoluene | 67 | U | 13 | 67 |
| 2,6-Dinitrotoluene | 67 | U | 18 | 67 |
| 2-Chloronaphthalene | 330 | U | 7.5 | 330 |
| 2-Chlorophenol | 330 | U | 8.4 | 330 |
| 2-Methylnaphthalene | 330 | U | 7.3 | 330 |
| 2-Methylphenol | 330 | U | 14 | 330 |
| 2-Nitroaniline | 330 | U | 11 | 330 |
| 2-Nitrophenol | 330 | U | 11 | 330 |
| 3,3'-Dichlorobenzidine | 130 | U | 37 | 130 |
| 3-Nitroaniline | 330 | U | 9.8 | 330 |
| 4,6-Dinitro-2-methylphenol | 270 | U | 88 | 270 |
| 4-Bromophenyl phenyl ether | 330 | U | 10 | 330 |
| 4-Chloro-3-methylphenol | 330 | U | 14 | 330 |
| 4-Chloroaniline | 330 | U | 8.5 | 330 |
| 4-Chlorophenyl phenyl ether | 330 | U | 9.9 | 330 |
| 4-Methylphenol | 330 | U | 9.0 | 330 |
| 4-Nitroaniline | 330 | U | 13 | 330 |
| 4-Nitrophenol | 670 | U | 160 | 670 |
| Acenaphthene | 330 | U | 8.0 | 330 |
| Acenaphthylene | 330 | U | 8.5 | 330 |
| Acetophenone | 330 | U | 7.2 | 330 |
| Anthracene | 330 | U | 31 | 330 |
| Atrazine | 130 | U | 15 | 130 |
| Benzaldehyde | 330 | U | 25 | 330 |
| Benzo[a]anthracene | 33 | U | 28 | 33 |
| Benzo[a]pyrene | 33 | U | 10 | 33 |
| Benzo[b]fluoranthene | 33 | U | 13 | 33 |
| Benzo[g,h,i]perylene | 330 | U | 19 | 330 |
| Benzo[k]fluoranthene | 33 | U | 14 | 33 |
| Bis(2-chloroethoxy)methane | 330 | U | 10 | 330 |
| Bis(2-chloroethyl)ether | 33 | U | 7.8 | 33 |
| Bis(2-ethylhexyl) phthalate | 330 | U | 13 | 330 |
| Butyl benzyl phthalate | 330 | U | 10 | 330 |
| Caprolactam | 330 | U | 24 | 330 |
| Carbazole | 330 | U | 8.2 | 330 |
| Chrysene | 330 | U | 9.0 | 330 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-427151

**Method: 8270D
Preparation: 3546**

| | | |
|----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: MB 460-427151/1-A | Analysis Batch: 460-427310 | Instrument ID: CBNAMS11 |
| Client Matrix: Solid | Prep Batch: 460-427151 | Lab File ID: z4322967.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 03/31/2017 0647 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 1151 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|-----|-----|
| Dibenz(a,h)anthracene | 33 | U | 17 | 33 |
| Dibenzofuran | 330 | U | 10 | 330 |
| Diethyl phthalate | 330 | U | 9.4 | 330 |
| Dimethyl phthalate | 330 | U | 9.6 | 330 |
| Di-n-butyl phthalate | 330 | U | 9.9 | 330 |
| Di-n-octyl phthalate | 330 | U | 17 | 330 |
| Fluoranthene | 330 | U | 9.8 | 330 |
| Fluorene | 330 | U | 7.2 | 330 |
| Hexachlorobenzene | 33 | U | 13 | 33 |
| Hexachlorobutadiene | 67 | U | 9.3 | 67 |
| Hexachlorocyclopentadiene | 330 | U | 21 | 330 |
| Hexachloroethane | 33 | U | 12 | 33 |
| Indeno[1,2,3-cd]pyrene | 33 | U | 22 | 33 |
| Isophorone | 130 | U | 7.1 | 130 |
| Naphthalene | 330 | U | 8.4 | 330 |
| Nitrobenzene | 33 | U | 10 | 33 |
| N-Nitrosodi-n-propylamine | 33 | U | 11 | 33 |
| N-Nitrosodiphenylamine | 330 | U | 30 | 330 |
| Pentachlorophenol | 270 | U | 40 | 270 |
| Phenanthrene | 330 | U | 8.8 | 330 |
| Phenol | 330 | U | 11 | 330 |
| Pyrene | 330 | U | 15 | 330 |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 85 | 10 - 103 |
| 2-Fluorobiphenyl | 69 | 38 - 95 |
| 2-Fluorophenol (Surr) | 71 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 72 | 37 - 94 |
| Phenol-d5 (Surr) | 75 | 32 - 91 |
| Terphenyl-d14 (Surr) | 84 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample - Batch: 460-427151

**Method: 8270D
Preparation: 3546**

| | | | | | |
|----------------|--------------------|-----------------|------------|------------------------|------------|
| Lab Sample ID: | LCS 460-427151/2-A | Analysis Batch: | 460-427310 | Instrument ID: | CBNAMS11 |
| Client Matrix: | Solid | Prep Batch: | 460-427151 | Lab File ID: | z4322963.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 15.0000 g |
| Analysis Date: | 03/31/2017 0510 | Units: | ug/Kg | Final Weight/Volume: | 1 mL |
| Prep Date: | 03/30/2017 1151 | | | Injection Volume: | 1 uL |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------------|--------------|--------|--------|----------|------|
| 1,1'-Biphenyl | 3330 | 2990 | 90 | 64 - 108 | |
| 1,2,4,5-Tetrachlorobenzene | 3330 | 2980 | 90 | 57 - 112 | |
| 2,2'-oxybis[1-chloropropane] | 3330 | 2680 | 80 | 39 - 122 | |
| 2,3,4,6-Tetrachlorophenol | 3330 | 3160 | 95 | 60 - 114 | |
| 2,4,5-Trichlorophenol | 3330 | 3120 | 93 | 60 - 106 | |
| 2,4,6-Trichlorophenol | 3330 | 3210 | 96 | 62 - 110 | |
| 2,4-Dichlorophenol | 3330 | 2860 | 86 | 61 - 103 | |
| 2,4-Dimethylphenol | 3330 | 3140 | 94 | 63 - 101 | |
| 2,4-Dinitrophenol | 6670 | 5790 | 87 | 56 - 122 | |
| 2,4-Dinitrotoluene | 3330 | 3340 | 100 | 66 - 122 | |
| 2,6-Dinitrotoluene | 3330 | 3230 | 97 | 70 - 114 | |
| 2-Chloronaphthalene | 3330 | 2940 | 88 | 63 - 107 | |
| 2-Chlorophenol | 3330 | 2960 | 89 | 62 - 97 | |
| 2-Methylnaphthalene | 3330 | 3110 | 93 | 65 - 104 | |
| 2-Methylphenol | 3330 | 3050 | 92 | 61 - 103 | |
| 2-Nitroaniline | 3330 | 2800 | 84 | 57 - 114 | |
| 2-Nitrophenol | 3330 | 3030 | 91 | 65 - 104 | |
| 3,3'-Dichlorobenzidine | 3330 | 1030 | 31 | 18 - 88 | |
| 3-Nitroaniline | 3330 | 1490 | 45 | 30 - 94 | |
| 4,6-Dinitro-2-methylphenol | 6670 | 5980 | 90 | 67 - 120 | |
| 4-Bromophenyl phenyl ether | 3330 | 3200 | 96 | 59 - 122 | |
| 4-Chloro-3-methylphenol | 3330 | 3140 | 94 | 62 - 111 | |
| 4-Chloroaniline | 3330 | 1250 | 38 | 18 - 94 | |
| 4-Chlorophenyl phenyl ether | 3330 | 3040 | 91 | 66 - 110 | |
| 4-Methylphenol | 3330 | 3070 | 92 | 61 - 105 | |
| 4-Nitroaniline | 3330 | 2580 | 77 | 49 - 118 | |
| 4-Nitrophenol | 6670 | 6090 | 91 | 43 - 141 | |
| Acenaphthene | 3330 | 2980 | 89 | 62 - 108 | |
| Acenaphthylene | 3330 | 3100 | 93 | 67 - 107 | |
| Acetophenone | 3330 | 3080 | 93 | 60 - 109 | |
| Anthracene | 3330 | 3180 | 95 | 69 - 111 | |
| Benzo[a]anthracene | 3330 | 3150 | 94 | 68 - 110 | |
| Benzo[a]pyrene | 3330 | 3330 | 100 | 72 - 115 | |
| Benzo[b]fluoranthene | 3330 | 3340 | 100 | 69 - 119 | |
| Benzo[g,h,i]perylene | 3330 | 3230 | 97 | 54 - 128 | |
| Benzo[k]fluoranthene | 3330 | 3230 | 97 | 70 - 115 | |
| Bis(2-chloroethoxy)methane | 3330 | 2950 | 89 | 65 - 106 | |
| Bis(2-chloroethyl)ether | 3330 | 3140 | 94 | 64 - 105 | |
| Bis(2-ethylhexyl) phthalate | 3330 | 3200 | 96 | 63 - 125 | |
| Butyl benzyl phthalate | 3330 | 3290 | 99 | 65 - 125 | |
| Carbazole | 3330 | 2980 | 89 | 66 - 115 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample - Batch: 460-427151

**Method: 8270D
Preparation: 3546**

| | | | | | |
|----------------|--------------------|-----------------|------------|------------------------|------------|
| Lab Sample ID: | LCS 460-427151/2-A | Analysis Batch: | 460-427310 | Instrument ID: | CBNAMS11 |
| Client Matrix: | Solid | Prep Batch: | 460-427151 | Lab File ID: | z4322963.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 15.0000 g |
| Analysis Date: | 03/31/2017 0510 | Units: | ug/Kg | Final Weight/Volume: | 1 mL |
| Prep Date: | 03/30/2017 1151 | | | Injection Volume: | 1 uL |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------------------------|--------------|--------|--------|----------|------|
| Chrysene | 3330 | 3190 | 96 | 70 - 111 | |
| Dibenz(a,h)anthracene | 3330 | 3300 | 99 | 60 - 130 | |
| Dibenzofuran | 3330 | 3000 | 90 | 67 - 107 | |
| Diethyl phthalate | 3330 | 3060 | 92 | 66 - 117 | |
| Dimethyl phthalate | 3330 | 3130 | 94 | 68 - 112 | |
| Di-n-butyl phthalate | 3330 | 3100 | 93 | 67 - 119 | |
| Di-n-octyl phthalate | 3330 | 3230 | 97 | 57 - 138 | |
| Fluoranthene | 3330 | 2990 | 90 | 64 - 114 | |
| Fluorene | 3330 | 3030 | 91 | 66 - 110 | |
| Hexachlorobenzene | 3330 | 3410 | 102 | 57 - 128 | |
| Hexachlorobutadiene | 3330 | 3050 | 92 | 60 - 108 | |
| Hexachlorocyclopentadiene | 3330 | 3550 | 106 | 50 - 129 | |
| Hexachloroethane | 3330 | 2930 | 88 | 63 - 99 | |
| Indeno[1,2,3-cd]pyrene | 3330 | 3210 | 96 | 53 - 137 | |
| Isophorone | 3330 | 3110 | 93 | 68 - 111 | |
| Naphthalene | 3330 | 2970 | 89 | 65 - 102 | |
| Nitrobenzene | 3330 | 2840 | 85 | 66 - 108 | |
| N-Nitrosodi-n-propylamine | 3330 | 3240 | 97 | 63 - 117 | |
| N-Nitrosodiphenylamine | 3330 | 3160 | 95 | 65 - 114 | |
| Pentachlorophenol | 6670 | 6260 | 94 | 56 - 116 | |
| Phenanthrene | 3330 | 3120 | 94 | 68 - 111 | |
| Phenol | 3330 | 3020 | 91 | 58 - 103 | |
| Pyrene | 3330 | 3480 | 104 | 64 - 121 | |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 103 | 10 - 103 |
| 2-Fluorobiphenyl | 86 | 38 - 95 |
| 2-Fluorophenol (Surr) | 86 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 86 | 37 - 94 |
| Phenol-d5 (Surr) | 90 | 32 - 91 |
| Terphenyl-d14 (Surr) | 104 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample - Batch: 460-427151

Method: 8270D
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-427151/3-A | Analysis Batch: 460-427310 | Instrument ID: CBNAMS11 |
| Client Matrix: Solid | Prep Batch: 460-427151 | Lab File ID: z4322964.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 03/31/2017 0534 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 1151 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|--------------|--------------|--------|--------|----------|------|
| Atrazine | 6670 | 5780 | 87 | 62 - 137 | |
| Benzaldehyde | 6670 | 5350 | 80 | 52 - 113 | |
| Caprolactam | 6670 | 6960 | 104 | 53 - 148 | |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 97 | 10 - 103 |
| 2-Fluorobiphenyl | 79 | 38 - 95 |
| 2-Fluorophenol (Surr) | 82 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 84 | 37 - 94 |
| Phenol-d5 (Surr) | 85 | 32 - 91 |
| Terphenyl-d14 (Surr) | 104 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427151**

**Method: 8270D
Preparation: 3546**

| | | |
|---------------------------------------|----------------------------|----------------------------------|
| MS Lab Sample ID: 460-130122-A-1-B MS | Analysis Batch: 460-427310 | Instrument ID: CBNAMS11 |
| Client Matrix: Solid | Prep Batch: 460-427151 | Lab File ID: z4322976.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0257 g |
| Analysis Date: 03/31/2017 1022 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 1151 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| | | |
|---|----------------------------|----------------------------------|
| MSD Lab Sample ID: 460-130122-A-1-C MSD | Analysis Batch: 460-427310 | Instrument ID: CBNAMS11 |
| Client Matrix: Solid | Prep Batch: 460-427151 | Lab File ID: z4322977.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0419 g |
| Analysis Date: 03/31/2017 1046 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 1151 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| 1,1'-Biphenyl | 76 | 74 | 64 - 108 | 3 | 30 | | |
| 1,2,4,5-Tetrachlorobenzene | 77 | 73 | 57 - 112 | 5 | 30 | | |
| 2,2'-oxybis[1-chloropropane] | 66 | 65 | 39 - 122 | 2 | 30 | | |
| 2,3,4,6-Tetrachlorophenol | 63 | 69 | 60 - 114 | 8 | 30 | | |
| 2,4,5-Trichlorophenol | 69 | 71 | 60 - 106 | 3 | 30 | | |
| 2,4,6-Trichlorophenol | 69 | 70 | 62 - 110 | 1 | 30 | | |
| 2,4-Dichlorophenol | 65 | 66 | 61 - 103 | 0 | 30 | | |
| 2,4-Dimethylphenol | 50 | 50 | 63 - 101 | 1 | 30 | * | * |
| 2,4-Dinitrophenol | 33 | 42 | 56 - 122 | 23 | 30 | * | * |
| 2,4-Dinitrotoluene | 79 | 84 | 66 - 122 | 7 | 30 | | |
| 2,6-Dinitrotoluene | 82 | 83 | 70 - 114 | 1 | 30 | | |
| 2-Chloronaphthalene | 75 | 73 | 63 - 107 | 3 | 30 | | |
| 2-Chlorophenol | 69 | 66 | 62 - 97 | 4 | 30 | | |
| 2-Methylnaphthalene | 77 | 76 | 65 - 104 | 2 | 30 | | |
| 2-Methylphenol | 63 | 61 | 61 - 103 | 3 | 30 | | |
| 2-Nitroaniline | 68 | 69 | 57 - 114 | 1 | 30 | | |
| 2-Nitrophenol | 77 | 74 | 65 - 104 | 4 | 30 | | |
| 3,3'-Dichlorobenzidine | 35 | 30 | 18 - 88 | 13 | 30 | | |
| 3-Nitroaniline | 48 | 45 | 30 - 94 | 7 | 30 | | |
| 4,6-Dinitro-2-methylphenol | 52 | 57 | 67 - 120 | 10 | 30 | * | * |
| 4-Bromophenyl phenyl ether | 78 | 78 | 59 - 122 | 1 | 30 | | |
| 4-Chloro-3-methylphenol | 67 | 70 | 62 - 111 | 4 | 30 | | |
| 4-Chloroaniline | 32 | 33 | 18 - 94 | 4 | 30 | | |
| 4-Chlorophenyl phenyl ether | 74 | 75 | 66 - 110 | 2 | 30 | | |
| 4-Methylphenol | 66 | 63 | 61 - 105 | 5 | 30 | | |
| 4-Nitroaniline | 49 | 45 | 49 - 118 | 8 | 30 | | * |
| 4-Nitrophenol | 61 | 69 | 43 - 141 | 13 | 30 | | |
| Acenaphthene | 72 | 74 | 62 - 108 | 2 | 30 | | |
| Acenaphthylene | 74 | 75 | 67 - 107 | 0 | 30 | | |
| Acetophenone | 81 | 77 | 60 - 109 | 6 | 30 | | |
| Anthracene | 71 | 77 | 69 - 111 | 7 | 30 | | |
| Atrazine | 70 | 70 | 62 - 137 | 1 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427151**

**Method: 8270D
Preparation: 3546**

| | | |
|---------------------------------------|----------------------------|----------------------------------|
| MS Lab Sample ID: 460-130122-A-1-B MS | Analysis Batch: 460-427310 | Instrument ID: CBNAMS11 |
| Client Matrix: Solid | Prep Batch: 460-427151 | Lab File ID: z4322976.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0257 g |
| Analysis Date: 03/31/2017 1022 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 1151 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| | | |
|---|----------------------------|----------------------------------|
| MSD Lab Sample ID: 460-130122-A-1-C MSD | Analysis Batch: 460-427310 | Instrument ID: CBNAMS11 |
| Client Matrix: Solid | Prep Batch: 460-427151 | Lab File ID: z4322977.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0419 g |
| Analysis Date: 03/31/2017 1046 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 1151 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|-----------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Benzaldehyde | 65 | 61 | 52 - 113 | 7 | 30 | | |
| Benzo[a]anthracene | 65 | 80 | 68 - 110 | 19 | 30 | * | |
| Benzo[a]pyrene | 65 | 78 | 72 - 115 | 16 | 30 | * | |
| Benzo[b]fluoranthene | 61 | 76 | 69 - 119 | 19 | 30 | * | |
| Benzo[g,h,i]perylene | 74 | 89 | 54 - 128 | 16 | 30 | | |
| Benzo[k]fluoranthene | 68 | 82 | 70 - 115 | 18 | 30 | * | |
| Bis(2-chloroethoxy)methane | 74 | 73 | 65 - 106 | 1 | 30 | | |
| Bis(2-chloroethyl)ether | 78 | 77 | 64 - 105 | 2 | 30 | | |
| Bis(2-ethylhexyl) phthalate | 77 | 83 | 63 - 125 | 8 | 30 | | |
| Butyl benzyl phthalate | 81 | 88 | 65 - 125 | 9 | 30 | | |
| Caprolactam | 64 | 64 | 53 - 148 | 1 | 30 | | |
| Carbazole | 57 | 56 | 66 - 115 | 3 | 30 | * | * |
| Chrysene | 65 | 80 | 70 - 111 | 19 | 30 | * | |
| Dibenz(a,h)anthracene | 81 | 89 | 60 - 130 | 8 | 30 | | |
| Dibenzofuran | 72 | 74 | 67 - 107 | 2 | 30 | | |
| Diethyl phthalate | 74 | 78 | 66 - 117 | 5 | 30 | | |
| Dimethyl phthalate | 79 | 80 | 68 - 112 | 1 | 30 | | |
| Di-n-butyl phthalate | 74 | 78 | 67 - 119 | 6 | 30 | | |
| Di-n-octyl phthalate | 72 | 79 | 57 - 138 | 9 | 30 | | |
| Fluoranthene | 58 | 83 | 64 - 114 | 31 | 30 | * | * |
| Fluorene | 71 | 75 | 66 - 110 | 5 | 30 | | |
| Hexachlorobenzene | 82 | 82 | 57 - 128 | 1 | 30 | | |
| Hexachlorobutadiene | 77 | 73 | 60 - 108 | 6 | 30 | | |
| Hexachlorocyclopentadiene | 83 | 71 | 50 - 129 | 16 | 30 | | |
| Hexachloroethane | 74 | 68 | 63 - 99 | 9 | 30 | | |
| Indeno[1,2,3-cd]pyrene | 73 | 100 | 53 - 137 | 28 | 30 | | |
| Isophorone | 76 | 75 | 68 - 111 | 1 | 30 | | |
| Naphthalene | 75 | 73 | 65 - 102 | 3 | 30 | | |
| Nitrobenzene | 63 | 62 | 66 - 108 | 1 | 30 | * | * |
| N-Nitrosodi-n-propylamine | 80 | 76 | 63 - 117 | 4 | 30 | | |
| N-Nitrosodiphenylamine | 70 | 69 | 65 - 114 | 2 | 30 | | |
| Pentachlorophenol | 52 | 59 | 56 - 116 | 13 | 30 | * | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427151**

**Method: 8270D
Preparation: 3546**

| | | |
|---------------------------------------|----------------------------|----------------------------------|
| MS Lab Sample ID: 460-130122-A-1-B MS | Analysis Batch: 460-427310 | Instrument ID: CBNAMS11 |
| Client Matrix: Solid | Prep Batch: 460-427151 | Lab File ID: z4322976.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0257 g |
| Analysis Date: 03/31/2017 1022 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 1151 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| | | |
|---|----------------------------|----------------------------------|
| MSD Lab Sample ID: 460-130122-A-1-C MSD | Analysis Batch: 460-427310 | Instrument ID: CBNAMS11 |
| Client Matrix: Solid | Prep Batch: 460-427151 | Lab File ID: z4322977.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0419 g |
| Analysis Date: 03/31/2017 1046 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 1151 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|--------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Phenanthrene | 72 | 82 | 68 - 111 | 13 | 30 | | |
| Phenol | 71 | 68 | 58 - 103 | 5 | 30 | | |
| Pyrene | 70 | 100 | 64 - 121 | 29 | 30 | | |

| Surrogate | MS % Rec | MSD % Rec | Acceptance Limits |
|-----------------------------|----------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 68 | 75 | 10 - 103 |
| 2-Fluorobiphenyl | 72 | 69 | 38 - 95 |
| 2-Fluorophenol (Surr) | 64 | 63 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 70 | 70 | 37 - 94 |
| Phenol-d5 (Surr) | 69 | 66 | 32 - 91 |
| Terphenyl-d14 (Surr) | 79 | 88 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-426997

**Method: 8081B
Preparation: 3510C**

Lab Sample ID: MB 460-426997/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/30/2017 1126
 Prep Date: 03/29/2017 1947
 Leach Date: N/A

Analysis Batch: 460-427093
 Prep Batch: 460-426997
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CPESTGC5
 Lab File ID: 5F008401.D
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|-----------------------|--------|------|--------|-------|
| 4,4'-DDD | 0.020 | U | 0.0050 | 0.020 |
| 4,4'-DDE | 0.020 | U | 0.0040 | 0.020 |
| 4,4'-DDT | 0.020 | U | 0.0040 | 0.020 |
| Aldrin | 0.020 | U | 0.0040 | 0.020 |
| alpha-BHC | 0.020 | U | 0.0060 | 0.020 |
| beta-BHC | 0.020 | U | 0.0050 | 0.020 |
| Chlordane (technical) | 0.50 | U | 0.13 | 0.50 |
| delta-BHC | 0.020 | U | 0.0060 | 0.020 |
| Dieldrin | 0.020 | U | 0.0040 | 0.020 |
| Endosulfan I | 0.020 | U | 0.0050 | 0.020 |
| Endosulfan II | 0.020 | U | 0.0040 | 0.020 |
| Endosulfan sulfate | 0.020 | U | 0.0050 | 0.020 |
| Endrin | 0.020 | U | 0.0040 | 0.020 |
| Endrin aldehyde | 0.020 | U | 0.0040 | 0.020 |
| Endrin ketone | 0.020 | U | 0.0040 | 0.020 |
| gamma-BHC (Lindane) | 0.020 | U | 0.0040 | 0.020 |
| Heptachlor | 0.020 | U | 0.0040 | 0.020 |
| Heptachlor epoxide | 0.020 | U | 0.0040 | 0.020 |
| Methoxychlor | 0.020 | U | 0.0040 | 0.020 |
| Toxaphene | 0.50 | U | 0.060 | 0.50 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 100 | 10 - 150 |
| Tetrachloro-m-xylene | 82 | 16 - 150 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 95 | 10 - 150 |
| Tetrachloro-m-xylene | 79 | 16 - 150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-426997

Method: 8081B

Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-426997/2-A | Analysis Batch: 460-427093 | Instrument ID: CPESTGC5 |
| Client Matrix: Water | Prep Batch: 460-426997 | Lab File ID: 5F008402.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 1139 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1947 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-426997/3-A | Analysis Batch: 460-427093 | Instrument ID: CPESTGC5 |
| Client Matrix: Water | Prep Batch: 460-426997 | Lab File ID: 5F008403.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 1152 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1947 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------|-----------|------------|-------------------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 4,4'-DDD | 124 | 121 | 66 - 150 | 2 | 30 | | |
| 4,4'-DDE | 123 | 121 | 67 - 150 | 2 | 30 | | |
| 4,4'-DDT | 113 | 111 | 62 - 150 | 1 | 30 | | |
| Aldrin | 109 | 108 | 48 - 144 | 1 | 30 | | |
| alpha-BHC | 115 | 113 | 68 - 150 | 1 | 30 | | |
| beta-BHC | 117 | 115 | 71 - 150 | 2 | 30 | | |
| delta-BHC | 109 | 108 | 58 - 150 | 1 | 30 | | |
| Dieldrin | 127 | 125 | 68 - 150 | 1 | 30 | | |
| Endosulfan I | 126 | 124 | 68 - 150 | 1 | 30 | | |
| Endosulfan II | 125 | 123 | 66 - 150 | 1 | 30 | | |
| Endosulfan sulfate | 118 | 115 | 64 - 150 | 3 | 30 | | |
| Endrin | 124 | 122 | 61 - 150 | 2 | 30 | | |
| Endrin aldehyde | 119 | 117 | 70 - 150 | 1 | 30 | | |
| Endrin ketone | 143 | 140 | 66 - 150 | 2 | 30 | | |
| gamma-BHC (Lindane) | 115 | 113 | 67 - 150 | 2 | 30 | | |
| Heptachlor | 108 | 108 | 53 - 145 | 0 | 30 | | |
| Heptachlor epoxide | 119 | 119 | 66 - 150 | 0 | 30 | | |
| Methoxychlor | 118 | 116 | 62 - 150 | 2 | 30 | | |
| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits | | | | |
| DCB Decachlorobiphenyl | 74 | 73 | 10 - 150 | | | | |
| Tetrachloro-m-xylene | 84 | 85 | 16 - 150 | | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-426997

Method: 8081B

Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-426997/2-A | Analysis Batch: 460-427093 | Instrument ID: CPESTGC5 |
| Client Matrix: Water | Prep Batch: 460-426997 | Lab File ID: 5F008402.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 1139 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1947 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-426997/3-A | Analysis Batch: 460-427093 | Instrument ID: CPESTGC5 |
| Client Matrix: Water | Prep Batch: 460-426997 | Lab File ID: 5F008403.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 1152 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1947 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------|-----------|------------|-------------------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 4,4'-DDD | 107 | 107 | 66 - 150 | 0 | 30 | | |
| 4,4'-DDE | 103 | 103 | 67 - 150 | 1 | 30 | | |
| 4,4'-DDT | 103 | 103 | 62 - 150 | 0 | 30 | | |
| Aldrin | 107 | 107 | 48 - 144 | 0 | 30 | | |
| alpha-BHC | 111 | 111 | 68 - 150 | 0 | 30 | | |
| beta-BHC | 114 | 113 | 71 - 150 | 1 | 30 | | |
| delta-BHC | 108 | 107 | 58 - 150 | 1 | 30 | | |
| Dieldrin | 113 | 113 | 68 - 150 | 0 | 30 | | |
| Endosulfan I | 118 | 117 | 68 - 150 | 0 | 30 | | |
| Endosulfan II | 115 | 116 | 66 - 150 | 1 | 30 | | |
| Endosulfan sulfate | 109 | 108 | 64 - 150 | 1 | 30 | | |
| Endrin | 109 | 110 | 61 - 150 | 0 | 30 | | |
| Endrin aldehyde | 114 | 114 | 70 - 150 | 0 | 30 | | |
| Endrin ketone | 124 | 122 | 66 - 150 | 2 | 30 | | |
| gamma-BHC (Lindane) | 110 | 111 | 67 - 150 | 0 | 30 | | |
| Heptachlor | 108 | 107 | 53 - 145 | 1 | 30 | | |
| Heptachlor epoxide | 112 | 113 | 66 - 150 | 0 | 30 | | |
| Methoxychlor | 102 | 101 | 62 - 150 | 1 | 30 | | |
| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits | | | | |
| DCB Decachlorobiphenyl | 70 | 71 | 10 - 150 | | | | |
| Tetrachloro-m-xylene | 84 | 82 | 16 - 150 | | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-427307

**Method: 8081B
Preparation: 3546**

Lab Sample ID: MB 460-427307/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/31/2017 1232
 Prep Date: 03/31/2017 0207
 Leach Date: N/A

Analysis Batch: 460-427379
 Prep Batch: 460-427307
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CPESTGC4
 Lab File ID: P4202962.D
 Initial Weight/Volume: +15.0000 g
 Final Weight/Volume: 10 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|-----------------------|--------|------|------|-----|
| 4,4'-DDD | 6.7 | U | 0.88 | 6.7 |
| 4,4'-DDE | 6.7 | U | 0.97 | 6.7 |
| 4,4'-DDT | 6.7 | U | 0.69 | 6.7 |
| Aldrin | 6.7 | U | 0.81 | 6.7 |
| alpha-BHC | 2.0 | U | 0.61 | 2.0 |
| beta-BHC | 2.0 | U | 0.65 | 2.0 |
| Chlordane (technical) | 67 | U | 30 | 67 |
| delta-BHC | 2.0 | U | 0.73 | 2.0 |
| Dieldrin | 2.0 | U | 0.87 | 2.0 |
| Endosulfan I | 6.7 | U | 0.93 | 6.7 |
| Endosulfan II | 6.7 | U | 1.1 | 6.7 |
| Endosulfan sulfate | 6.7 | U | 0.78 | 6.7 |
| Endrin | 6.7 | U | 0.85 | 6.7 |
| Endrin aldehyde | 6.7 | U | 0.83 | 6.7 |
| Endrin ketone | 6.7 | U | 0.93 | 6.7 |
| gamma-BHC (Lindane) | 2.0 | U | 0.60 | 2.0 |
| Heptachlor | 6.7 | U | 0.86 | 6.7 |
| Heptachlor epoxide | 6.7 | U | 1.3 | 6.7 |
| Methoxychlor | 6.7 | U | 1.4 | 6.7 |
| Toxaphene | 67 | U | 20 | 67 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 102 | 50 - 150 |
| Tetrachloro-m-xylene | 102 | 47 - 150 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 93 | 50 - 150 |
| Tetrachloro-m-xylene | 97 | 47 - 150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample - Batch: 460-427307

Method: 8081B
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|-----------------------------------|
| Lab Sample ID: LCS 460-427307/2-A | Analysis Batch: 460-427379 | Instrument ID: CPESTGC4 |
| Client Matrix: Solid | Prep Batch: 460-427307 | Lab File ID: P4202963.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0000 g |
| Analysis Date: 03/31/2017 1244 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 0207 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|--------|-------------------|------|
| 4,4'-DDD | 133 | 103 | 77 | 64 - 129 | |
| 4,4'-DDE | 133 | 106 | 79 | 65 - 129 | |
| 4,4'-DDT | 133 | 107 | 80 | 59 - 124 | |
| Aldrin | 133 | 112 | 84 | 66 - 127 | |
| alpha-BHC | 133 | 113 | 85 | 69 - 131 | |
| beta-BHC | 133 | 109 | 82 | 69 - 127 | |
| delta-BHC | 133 | 114 | 85 | 64 - 129 | |
| Dieldrin | 133 | 112 | 84 | 65 - 128 | |
| Endosulfan I | 133 | 113 | 85 | 66 - 126 | |
| Endosulfan II | 133 | 109 | 82 | 64 - 124 | |
| Endosulfan sulfate | 133 | 108 | 81 | 62 - 123 | |
| Endrin | 133 | 109 | 82 | 58 - 126 | |
| Endrin aldehyde | 133 | 114 | 85 | 69 - 131 | |
| Endrin ketone | 133 | 107 | 80 | 62 - 125 | |
| gamma-BHC (Lindane) | 133 | 109 | 82 | 67 - 126 | |
| Heptachlor | 133 | 109 | 82 | 63 - 125 | |
| Heptachlor epoxide | 133 | 110 | 82 | 64 - 125 | |
| Methoxychlor | 133 | 101 | 76 | 56 - 123 | |
| <hr/> | | | | | |
| Surrogate | | % Rec | | Acceptance Limits | |
| DCB Decachlorobiphenyl | | 89 | | 50 - 150 | |
| Tetrachloro-m-xylene | | 87 | | 47 - 150 | |

Lab Control Sample - Batch: 460-427307

Method: 8081B
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|-----------------------------------|
| Lab Sample ID: LCS 460-427307/2-A | Analysis Batch: 460-427379 | Instrument ID: CPESTGC4 |
| Client Matrix: Solid | Prep Batch: 460-427307 | Lab File ID: P4202963.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0000 g |
| Analysis Date: 03/31/2017 1244 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 0207 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|----------|------|
| 4,4'-DDD | 133 | 95.0 | 71 | 64 - 129 | |
| 4,4'-DDE | 133 | 96.2 | 72 | 65 - 129 | |
| 4,4'-DDT | 133 | 96.2 | 72 | 59 - 124 | |
| Aldrin | 133 | 97.4 | 73 | 66 - 127 | |
| alpha-BHC | 133 | 99.2 | 74 | 69 - 131 | |
| beta-BHC | 133 | 104 | 78 | 69 - 127 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample - Batch: 460-427307

**Method: 8081B
Preparation: 3546**

| | | |
|-----------------------------------|----------------------------|-----------------------------------|
| Lab Sample ID: LCS 460-427307/2-A | Analysis Batch: 460-427379 | Instrument ID: CPESTGC4 |
| Client Matrix: Solid | Prep Batch: 460-427307 | Lab File ID: P4202963.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0000 g |
| Analysis Date: 03/31/2017 1244 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 0207 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|--------|-------------------|------|
| delta-BHC | 133 | 100 | 75 | 64 - 129 | |
| Dieldrin | 133 | 100 | 75 | 65 - 128 | |
| Endosulfan I | 133 | 97.8 | 73 | 66 - 126 | |
| Endosulfan II | 133 | 102 | 76 | 64 - 124 | |
| Endosulfan sulfate | 133 | 94.1 | 71 | 62 - 123 | |
| Endrin | 133 | 95.6 | 72 | 58 - 126 | |
| Endrin aldehyde | 133 | 96.8 | 73 | 69 - 131 | |
| Endrin ketone | 133 | 100 | 75 | 62 - 125 | |
| gamma-BHC (Lindane) | 133 | 98.9 | 74 | 67 - 126 | |
| Heptachlor | 133 | 99.6 | 75 | 63 - 125 | |
| Heptachlor epoxide | 133 | 94.8 | 71 | 64 - 125 | |
| Methoxychlor | 133 | 99.9 | 75 | 56 - 123 | |
| Surrogate | | % Rec | | Acceptance Limits | |
| DCB Decachlorobiphenyl | | 89 | | 50 - 150 | |
| Tetrachloro-m-xylene | | 87 | | 47 - 150 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427307**

**Method: 8081B
Preparation: 3546**

| | | |
|---------------------------------------|----------------------------|-----------------------------------|
| MS Lab Sample ID: 460-130105-G-1-G MS | Analysis Batch: 460-427379 | Instrument ID: CPESTGC4 |
| Client Matrix: Solid | Prep Batch: 460-427307 | Lab File ID: P4202964.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0201 g |
| Analysis Date: 03/31/2017 1256 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 0207 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| | | |
|---|----------------------------|-----------------------------------|
| MSD Lab Sample ID: 460-130105-G-1-H MSD | Analysis Batch: 460-427379 | Instrument ID: CPESTGC4 |
| Client Matrix: Solid | Prep Batch: 460-427307 | Lab File ID: P4202965.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0099 g |
| Analysis Date: 03/31/2017 1309 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 0207 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------|----------|-----|-----------|-------------------|-----------|---------|----------|
| | MS | MSD | | | | | |
| 4,4'-DDD | 73 | 72 | 64 - 129 | 0 | 30 | | |
| 4,4'-DDE | 75 | 75 | 65 - 129 | 0 | 30 | | |
| 4,4'-DDT | 75 | 75 | 59 - 124 | 1 | 30 | | |
| Aldrin | 81 | 81 | 66 - 127 | 0 | 30 | | |
| alpha-BHC | 82 | 81 | 69 - 131 | 1 | 30 | | |
| beta-BHC | 79 | 78 | 69 - 127 | 2 | 30 | | |
| delta-BHC | 80 | 80 | 64 - 129 | 0 | 30 | | |
| Dieldrin | 79 | 79 | 65 - 128 | 0 | 30 | | |
| Endosulfan I | 80 | 80 | 66 - 126 | 0 | 30 | | |
| Endosulfan II | 77 | 76 | 64 - 124 | 1 | 30 | | |
| Endosulfan sulfate | 77 | 77 | 62 - 123 | 0 | 30 | | |
| Endrin | 77 | 77 | 58 - 126 | 0 | 30 | | |
| Endrin aldehyde | 80 | 79 | 69 - 131 | 1 | 30 | | |
| Endrin ketone | 77 | 76 | 62 - 125 | 0 | 30 | | |
| gamma-BHC (Lindane) | 79 | 78 | 67 - 126 | 2 | 30 | | |
| Heptachlor | 78 | 78 | 63 - 125 | 1 | 30 | | |
| Heptachlor epoxide | 78 | 78 | 64 - 125 | 0 | 30 | | |
| Methoxychlor | 74 | 72 | 56 - 123 | 2 | 30 | | |
| Surrogate | MS % Rec | | MSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 96 | | 88 | 50 - 150 | | | |
| Tetrachloro-m-xylene | 91 | | 88 | 47 - 150 | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427307**

**Method: 8081B
Preparation: 3546**

| | | |
|---------------------------------------|----------------------------|-----------------------------------|
| MS Lab Sample ID: 460-130105-G-1-G MS | Analysis Batch: 460-427379 | Instrument ID: CPESTGC4 |
| Client Matrix: Solid | Prep Batch: 460-427307 | Lab File ID: P4202964.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0201 g |
| Analysis Date: 03/31/2017 1256 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 0207 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| | | |
|---|----------------------------|-----------------------------------|
| MSD Lab Sample ID: 460-130105-G-1-H MSD | Analysis Batch: 460-427379 | Instrument ID: CPESTGC4 |
| Client Matrix: Solid | Prep Batch: 460-427307 | Lab File ID: P4202965.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0099 g |
| Analysis Date: 03/31/2017 1309 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 0207 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------|--------|----------|-----------|-----|-----------|-------------------|----------|
| | MS | MSD | | | | | |
| 4,4'-DDD | 69 | 67 | 64 - 129 | 2 | 30 | | |
| 4,4'-DDE | 69 | 68 | 65 - 129 | 2 | 30 | | |
| 4,4'-DDT | 68 | 68 | 59 - 124 | 0 | 30 | | |
| Aldrin | 71 | 69 | 66 - 127 | 3 | 30 | | |
| alpha-BHC | 72 | 69 | 69 - 131 | 4 | 30 | | |
| beta-BHC | 75 | 71 | 69 - 127 | 5 | 30 | | |
| delta-BHC | 73 | 71 | 64 - 129 | 3 | 30 | | |
| Dieldrin | 72 | 71 | 65 - 128 | 2 | 30 | | |
| Endosulfan I | 70 | 69 | 66 - 126 | 2 | 30 | | |
| Endosulfan II | 72 | 72 | 64 - 124 | 1 | 30 | | |
| Endosulfan sulfate | 68 | 65 | 62 - 123 | 4 | 30 | | |
| Endrin | 69 | 67 | 58 - 126 | 2 | 30 | | |
| Endrin aldehyde | 69 | 68 | 69 - 131 | 1 | 30 | | * |
| Endrin ketone | 73 | 68 | 62 - 125 | 7 | 30 | | |
| gamma-BHC (Lindane) | 72 | 69 | 67 - 126 | 4 | 30 | | |
| Heptachlor | 73 | 71 | 63 - 125 | 3 | 30 | | |
| Heptachlor epoxide | 69 | 67 | 64 - 125 | 2 | 30 | | |
| Surrogate | | MS % Rec | MSD % Rec | | | Acceptance Limits | |
| DCB Decachlorobiphenyl | | 91 | 86 | | | 50 - 150 | |
| Tetrachloro-m-xylene | | 88 | 86 | | | 47 - 150 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-426998

**Method: 8082A
Preparation: 3510C**

Lab Sample ID: MB 460-426998/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/30/2017 1251
 Prep Date: 03/29/2017 1950
 Leach Date: N/A

Analysis Batch: 460-427113
 Prep Batch: 460-426998
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CPESTGC8
 Lab File ID: 8F018862.D
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|----------------------------------|--------|------|-------|------|
| Aroclor 1016 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1221 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1232 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1242 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1248 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1254 | 0.40 | U | 0.084 | 0.40 |
| Aroclor 1260 | 0.40 | U | 0.084 | 0.40 |
| Aroclor 1268 | 0.40 | U | 0.084 | 0.40 |
| Aroclor-1262 | 0.40 | U | 0.084 | 0.40 |
| Polychlorinated biphenyls, Total | 0.40 | U | 0.098 | 0.40 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 70 | 10 - 150 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 63 | 10 - 150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-426998 **Method: 8082A**
Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-426998/2-A | Analysis Batch: 460-427113 | Instrument ID: CPESTGC8 |
| Client Matrix: Water | Prep Batch: 460-426998 | Lab File ID: 8F018864.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 1313 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1950 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-426998/3-A | Analysis Batch: 460-427113 | Instrument ID: CPESTGC8 |
| Client Matrix: Water | Prep Batch: 460-426998 | Lab File ID: 8F018865.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 1330 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1950 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------|-----------|------|------------|-------------------|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Aroclor 1016 | 124 | 119 | 77 - 150 | 4 | 30 | | |
| Aroclor 1260 | 146 | 145 | 80 - 150 | 1 | 30 | | |
| Surrogate | LCS % Rec | | LCSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 67 | | 68 | 10 - 150 | | | |

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-426998 **Method: 8082A**
Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-426998/2-A | Analysis Batch: 460-427113 | Instrument ID: CPESTGC8 |
| Client Matrix: Water | Prep Batch: 460-426998 | Lab File ID: 8F018864.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 1313 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1950 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-426998/3-A | Analysis Batch: 460-427113 | Instrument ID: CPESTGC8 |
| Client Matrix: Water | Prep Batch: 460-426998 | Lab File ID: 8F018865.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/30/2017 1330 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/29/2017 1950 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------|-----------|------|------------|-------------------|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Aroclor 1016 | 119 | 114 | 77 - 150 | 4 | 30 | | |
| Aroclor 1260 | 134 | 131 | 80 - 150 | 3 | 30 | | |
| Surrogate | LCS % Rec | | LCSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 66 | | 63 | 10 - 150 | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-427308

**Method: 8082A
Preparation: 3546**

Lab Sample ID: MB 460-427308/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/31/2017 1003
 Prep Date: 03/31/2017 0211
 Leach Date: N/A

Analysis Batch: 460-427376
 Prep Batch: 460-427308
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CPESTGC11
 Lab File ID: T1341055.D
 Initial Weight/Volume: +15.0000 g
 Final Weight/Volume: 10 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|----------------------------------|--------|------|-----|----|
| Aroclor 1016 | 67 | U | 8.9 | 67 |
| Aroclor 1221 | 67 | U | 8.9 | 67 |
| Aroclor 1232 | 67 | U | 8.9 | 67 |
| Aroclor 1242 | 67 | U | 8.9 | 67 |
| Aroclor 1248 | 67 | U | 8.9 | 67 |
| Aroclor 1254 | 67 | U | 9.2 | 67 |
| Aroclor 1260 | 67 | U | 9.2 | 67 |
| Aroclor 1268 | 67 | U | 9.2 | 67 |
| Aroclor-1262 | 67 | U | 9.2 | 67 |
| Polychlorinated biphenyls, Total | 67 | U | 9.2 | 67 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 122 | 35 - 150 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 111 | 35 - 150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample - Batch: 460-427308

Method: 8082A
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|-----------------------------------|
| Lab Sample ID: LCS 460-427308/2-A | Analysis Batch: 460-427376 | Instrument ID: CPESTGC11 |
| Client Matrix: Solid | Prep Batch: 460-427308 | Lab File ID: T1341056.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0000 g |
| Analysis Date: 03/31/2017 1018 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 0211 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|-------------------|----------|------|
| Aroclor 1016 | 333 | 346 | 104 | 77 - 150 | |
| Aroclor 1260 | 333 | 333 | 100 | 79 - 150 | |
| Surrogate | | % Rec | Acceptance Limits | | |
| DCB Decachlorobiphenyl | | 105 | 35 - 150 | | |

Lab Control Sample - Batch: 460-427308

Method: 8082A
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|-----------------------------------|
| Lab Sample ID: LCS 460-427308/2-A | Analysis Batch: 460-427376 | Instrument ID: CPESTGC11 |
| Client Matrix: Solid | Prep Batch: 460-427308 | Lab File ID: T1341056.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0000 g |
| Analysis Date: 03/31/2017 1018 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 0211 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|-------------------|----------|------|
| Aroclor 1016 | 333 | 313 | 94 | 77 - 150 | |
| Aroclor 1260 | 333 | 299 | 90 | 79 - 150 | |
| Surrogate | | % Rec | Acceptance Limits | | |
| DCB Decachlorobiphenyl | | 95 | 35 - 150 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427308**

**Method: 8082A
Preparation: 3546**

| | | |
|--|----------------------------|-----------------------------------|
| MS Lab Sample ID: 460-130306-A-11-A MS | Analysis Batch: 460-427376 | Instrument ID: CPESTGC11 |
| Client Matrix: Solid | Prep Batch: 460-427308 | Lab File ID: T1341059.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0112 g |
| Analysis Date: 03/31/2017 1102 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 0211 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| | | |
|--|----------------------------|-----------------------------------|
| MSD Lab Sample ID: 460-130306-A-11-B MSD | Analysis Batch: 460-427376 | Instrument ID: CPESTGC11 |
| Client Matrix: Solid | Prep Batch: 460-427308 | Lab File ID: T1341060.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0208 g |
| Analysis Date: 03/31/2017 1117 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 0211 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------|----------|-----|-----------|-------------------|-----------|---------|----------|
| | MS | MSD | | | | | |
| Aroclor 1016 | 164 | 189 | 77 - 150 | 15 | 30 | * | * |
| Aroclor 1260 | 106 | 106 | 79 - 150 | 1 | 30 | | |
| Surrogate | MS % Rec | | MSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 110 | | 110 | 35 - 150 | | | |

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427308**

**Method: 8082A
Preparation: 3546**

| | | |
|--|----------------------------|-----------------------------------|
| MS Lab Sample ID: 460-130306-A-11-A MS | Analysis Batch: 460-427376 | Instrument ID: CPESTGC11 |
| Client Matrix: Solid | Prep Batch: 460-427308 | Lab File ID: T1341059.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0112 g |
| Analysis Date: 03/31/2017 1102 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 0211 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| | | |
|--|----------------------------|-----------------------------------|
| MSD Lab Sample ID: 460-130306-A-11-B MSD | Analysis Batch: 460-427376 | Instrument ID: CPESTGC11 |
| Client Matrix: Solid | Prep Batch: 460-427308 | Lab File ID: T1341060.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: +15.0208 g |
| Analysis Date: 03/31/2017 1117 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 0211 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------|----------|-----|-----------|-------------------|-----------|---------|----------|
| | MS | MSD | | | | | |
| Aroclor 1016 | 181 | 209 | 77 - 150 | 15 | 30 | * | * |
| Aroclor 1260 | 100 | 99 | 79 - 150 | 0 | 30 | | |
| Surrogate | MS % Rec | | MSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 99 | | 99 | 35 - 150 | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-427290

Method: 6010C
Preparation: 3050B

| | | | | | |
|----------------|----------------------|-----------------|------------|------------------------|--------------|
| Lab Sample ID: | MB 460-427290/1-A ^2 | Analysis Batch: | 460-427449 | Instrument ID: | ICP5 |
| Client Matrix: | Solid | Prep Batch: | 460-427290 | Lab File ID: | 427290D1.asc |
| Dilution: | 2.0 | Leach Batch: | N/A | Initial Weight/Volume: | 1.00 g |
| Analysis Date: | 03/31/2017 1153 | Units: | mg/Kg | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/30/2017 1907 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|-----------|--------|------|------|------|
| Aluminum | 20.0 | U | 10.3 | 20.0 |
| Antimony | 2.0 | U | 0.79 | 2.0 |
| Arsenic | 1.5 | U | 0.49 | 1.5 |
| Barium | 20.0 | U | 0.72 | 20.0 |
| Beryllium | 0.20 | U | 0.17 | 0.20 |
| Cadmium | 0.40 | U | 0.21 | 0.40 |
| Calcium | 500 | U | 29.6 | 500 |
| Chromium | 1.0 | U | 0.48 | 1.0 |
| Cobalt | 5.0 | U | 0.58 | 5.0 |
| Copper | 2.5 | U | 0.65 | 2.5 |
| Iron | 15.0 | U | 11.3 | 15.0 |
| Lead | 1.0 | U | 0.39 | 1.0 |
| Magnesium | 500 | U | 25.0 | 500 |
| Manganese | 1.5 | U | 0.53 | 1.5 |
| Nickel | 4.0 | U | 0.73 | 4.0 |
| Potassium | 500 | U | 15.2 | 500 |
| Selenium | 2.0 | U | 0.69 | 2.0 |
| Silver | 1.0 | U | 0.18 | 1.0 |
| Sodium | 500 | U | 33.9 | 500 |
| Thallium | 2.0 | U | 0.89 | 2.0 |
| Vanadium | 5.0 | U | 0.50 | 5.0 |
| Zinc | 3.0 | U | 0.73 | 3.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

LCS-Certified Reference Material - Batch: 460-427290

**Method: 6010C
Preparation: 3050B**

| | | |
|--|----------------------------|-------------------------------|
| Lab Sample ID: LCSSRM 460-427290/2- A | Analysis Batch: 460-427449 | Instrument ID: ICP5 |
| Client Matrix: Solid | Prep Batch: 460-427290 | Lab File ID: 427290D1.asc |
| Dilution: 4.0 | Leach Batch: N/A | Initial Weight/Volume: 1.04 g |
| Analysis Date: 03/31/2017 1138 | Units: mg/Kg | Final Weight/Volume: 50 mL |
| Prep Date: 03/30/2017 1907 | | |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|--------------|------|
| Aluminum | 8080 | 7552 | 93.5 | 49.4 - 151.0 | |
| Antimony | 88.2 | 47.54 | 53.9 | 2.2 - 197.3 | |
| Arsenic | 57.0 | 56.23 | 98.7 | 75.1 - 124.9 | |
| Barium | 110 | 111.3 | 101.2 | 82.4 - 118.2 | |
| Beryllium | 67.5 | 70.60 | 104.6 | 82.8 - 117.2 | |
| Cadmium | 77.8 | 81.79 | 105.1 | 82.8 - 117.2 | |
| Calcium | 6450 | 6371 | 98.8 | 82.2 - 117.7 | |
| Chromium | 65.0 | 66.06 | 101.6 | 79.1 - 121.1 | |
| Cobalt | 58.8 | 62.08 | 105.6 | 83.8 - 116.3 | |
| Copper | 56.4 | 57.67 | 102.3 | 80.5 - 119.7 | |
| Iron | 14700 | 13570 | 92.3 | 45.6 - 154.4 | |
| Lead | 85.6 | 87.25 | 101.9 | 82.0 - 118.0 | |
| Magnesium | 2710 | 2502 | 92.3 | 75.6 - 124.0 | |
| Manganese | 273 | 288.8 | 105.8 | 81.0 - 118.7 | |
| Nickel | 61.3 | 66.44 | 108.4 | 82.5 - 117.5 | |
| Potassium | 2420 | 2210 | 91.3 | 69.4 - 131.0 | |
| Selenium | 78.9 | 78.00 | 98.9 | 77.6 - 122.4 | |
| Silver | 54.2 | 53.33 | 98.4 | 74.7 - 125.3 | |
| Sodium | 914 | 855.8 | 93.6 | 71.6 - 128.0 | J |
| Thallium | 178 | 189.1 | 106.2 | 79.2 - 120.2 | |
| Vanadium | 56.3 | 54.85 | 97.4 | 77.1 - 122.9 | |
| Zinc | 198 | 202.1 | 102.1 | 82.3 - 117.2 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Matrix Spike - Batch: 460-427290

**Method: 6010C
Preparation: 3050B**

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| Lab Sample ID: 460-130548-B-12-B MS ^ | Analysis Batch: 460-427449 | Instrument ID: ICP5 |
| Client Matrix: Solid | Prep Batch: 460-427290 | Lab File ID: 427290D1.asc |
| Dilution: 4.0 | Leach Batch: N/A | Initial Weight/Volume: 1.25 g |
| Analysis Date: 03/31/2017 1123 | Units: mg/Kg | Final Weight/Volume: 50 mL |
| Prep Date: 03/30/2017 1907 | | |
| Leach Date: N/A | | |

| Analyte | Sample | Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------|-------------|--------------|--------|--------|----------|------|
| Aluminum | 10200 | | 178 | 13070 | 1589 | 75 - 125 | 4 |
| Antimony | 3.6 | U | 44.5 | 20.35 | 46 | 75 - 125 | N |
| Arsenic | 2.6 | J | 178 | 165.7 | 92 | 75 - 125 | |
| Barium | 53.1 | | 178 | 223.4 | 96 | 75 - 125 | |
| Beryllium | 0.50 | | 4.45 | 4.79 | 96 | 75 - 125 | |
| Cadmium | 0.72 | U | 4.45 | 4.24 | 95 | 75 - 125 | |
| Calcium | 1510 | | 1780 | 3786 | 128 | 75 - 125 | N |
| Chromium | 12.3 | | 17.8 | 31.55 | 108 | 75 - 125 | |
| Cobalt | 4.3 | J | 44.5 | 47.11 | 96 | 75 - 125 | |
| Copper | 7.2 | | 22.2 | 26.73 | 88 | 75 - 125 | |
| Iron | 11900 | | 88.9 | 11520 | -367 | 75 - 125 | 4 |
| Lead | 15.0 | | 44.5 | 57.73 | 96 | 75 - 125 | |
| Magnesium | 1190 | | 1780 | 2838 | 93 | 75 - 125 | |
| Manganese | 180 | | 44.5 | 205.4 | 58 | 75 - 125 | 4 |
| Nickel | 8.1 | | 44.5 | 52.13 | 99 | 75 - 125 | |
| Potassium | 328 | J | 1780 | 2027 | 96 | 75 - 125 | |
| Selenium | 3.6 | U | 178 | 159.9 | 90 | 75 - 125 | |
| Silver | 1.8 | U | 4.45 | 4.16 | 94 | 75 - 125 | |
| Sodium | 896 | U | 1780 | 1682 | 95 | 75 - 125 | |
| Thallium | 3.6 | U | 178 | 170.7 | 96 | 75 - 125 | |
| Vanadium | 18.9 | | 44.5 | 62.26 | 97 | 75 - 125 | |
| Zinc | 21.9 | | 44.5 | 67.33 | 102 | 75 - 125 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Duplicate - Batch: 460-427290

**Method: 6010C
Preparation: 3050B**

| | | | | | |
|----------------|------------------------|-----------------|------------|------------------------|--------------|
| Lab Sample ID: | 460-130548-A-12-H DU ^ | Analysis Batch: | 460-427449 | Instrument ID: | ICP5 |
| Client Matrix: | Solid | Prep Batch: | 460-427290 | Lab File ID: | 427290D1.asc |
| Dilution: | 4.0 | Leach Batch: | N/A | Initial Weight/Volume: | 1.23 g |
| Analysis Date: | 03/31/2017 1126 | Units: | mg/Kg | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/30/2017 1907 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample | Result/Qual | Result | RPD | Limit | Qual |
|-----------|--------|-------------|--------|-----|-------|------|
| Aluminum | 10200 | | 9715 | 5 | 20 | |
| Antimony | 3.6 | U | 3.6 | NC | 20 | U |
| Arsenic | 2.6 | J | 2.94 | 12 | 20 | |
| Barium | 53.1 | | 48.47 | 9 | 20 | |
| Beryllium | 0.50 | | 0.447 | 11 | 20 | |
| Cadmium | 0.72 | U | 0.72 | NC | 20 | U |
| Calcium | 1510 | | 1704 | 12 | 20 | |
| Chromium | 12.3 | | 27.27 | 75 | 20 | * |
| Cobalt | 4.3 | J | 4.02 | 8 | 20 | J |
| Copper | 7.2 | | 6.74 | 7 | 20 | |
| Iron | 11900 | | 11340 | 4 | 20 | |
| Lead | 15.0 | | 12.34 | 20 | 20 | |
| Magnesium | 1190 | | 945.1 | 23 | 20 | |
| Manganese | 180 | | 157.5 | 13 | 20 | |
| Nickel | 8.1 | | 8.10 | 0.2 | 20 | |
| Potassium | 328 | J | 362.0 | 10 | 20 | J |
| Selenium | 3.6 | U | 3.6 | NC | 20 | U |
| Silver | 1.8 | U | 1.8 | NC | 20 | U |
| Sodium | 896 | U | 904 | NC | 20 | U |
| Thallium | 3.6 | U | 3.6 | NC | 20 | U |
| Vanadium | 18.9 | | 20.44 | 8 | 20 | |
| Zinc | 21.9 | | 20.30 | 8 | 20 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-427292

Method: 6010C
Preparation: 3050B

Lab Sample ID: MB 460-427292/1-A ^2
Client Matrix: Solid
Dilution: 2.0
Analysis Date: 03/31/2017 2046
Prep Date: 03/30/2017 1907
Leach Date: N/A

Analysis Batch: 460-427491
Prep Batch: 460-427292
Leach Batch: N/A
Units: mg/Kg

Instrument ID: ICP5
Lab File ID: 427292D1.asc
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

| Analyte | Result | Qual | MDL | RL |
|-----------|--------|------|------|------|
| Aluminum | 20.0 | U | 10.3 | 20.0 |
| Antimony | 2.0 | U | 0.79 | 2.0 |
| Arsenic | 1.5 | U | 0.49 | 1.5 |
| Barium | 20.0 | U | 0.72 | 20.0 |
| Beryllium | 0.20 | U | 0.17 | 0.20 |
| Cadmium | 0.40 | U | 0.21 | 0.40 |
| Calcium | 500 | U | 29.6 | 500 |
| Chromium | 1.0 | U | 0.48 | 1.0 |
| Cobalt | 5.0 | U | 0.58 | 5.0 |
| Copper | 2.5 | U | 0.65 | 2.5 |
| Iron | 15.0 | U | 11.3 | 15.0 |
| Lead | 1.0 | U | 0.39 | 1.0 |
| Magnesium | 500 | U | 25.0 | 500 |
| Manganese | 1.5 | U | 0.53 | 1.5 |
| Nickel | 4.0 | U | 0.73 | 4.0 |
| Potassium | 500 | U | 15.2 | 500 |
| Selenium | 2.0 | U | 0.69 | 2.0 |
| Silver | 1.0 | U | 0.18 | 1.0 |
| Sodium | 500 | U | 33.9 | 500 |
| Thallium | 2.0 | U | 0.89 | 2.0 |
| Vanadium | 5.0 | U | 0.50 | 5.0 |
| Zinc | 3.0 | U | 0.73 | 3.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

LCS-Certified Reference Material - Batch: 460-427292

**Method: 6010C
Preparation: 3050B**

| | | |
|--|----------------------------|-------------------------------|
| Lab Sample ID: LCSSRM 460-427292/2- A | Analysis Batch: 460-427491 | Instrument ID: ICP5 |
| Client Matrix: Solid | Prep Batch: 460-427292 | Lab File ID: 427292D1.asc |
| Dilution: 4.0 | Leach Batch: N/A | Initial Weight/Volume: 1.00 g |
| Analysis Date: 03/31/2017 2031 | Units: mg/Kg | Final Weight/Volume: 50 mL |
| Prep Date: 03/30/2017 1907 | | |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|--------------|------|
| Aluminum | 8080 | 7856 | 97.2 | 49.4 - 151.0 | |
| Antimony | 88.2 | 45.94 | 52.1 | 2.2 - 197.3 | |
| Arsenic | 57.0 | 56.14 | 98.5 | 75.1 - 124.9 | |
| Barium | 110 | 114.3 | 103.9 | 82.4 - 118.2 | |
| Beryllium | 67.5 | 67.68 | 100.3 | 82.8 - 117.2 | |
| Cadmium | 77.8 | 79.68 | 102.4 | 82.8 - 117.2 | |
| Calcium | 6450 | 6418 | 99.5 | 82.2 - 117.7 | |
| Chromium | 65.0 | 68.06 | 104.7 | 79.1 - 121.1 | |
| Cobalt | 58.8 | 60.42 | 102.8 | 83.8 - 116.3 | |
| Copper | 56.4 | 53.76 | 95.3 | 80.5 - 119.7 | |
| Iron | 14700 | 13920 | 94.7 | 45.6 - 154.4 | |
| Lead | 85.6 | 86.38 | 100.9 | 82.0 - 118.0 | |
| Magnesium | 2710 | 2548 | 94.0 | 75.6 - 124.0 | |
| Manganese | 273 | 282.4 | 103.4 | 81.0 - 118.7 | |
| Nickel | 61.3 | 64.48 | 105.2 | 82.5 - 117.5 | |
| Potassium | 2420 | 2412 | 99.7 | 69.4 - 131.0 | |
| Selenium | 78.9 | 76.42 | 96.9 | 77.6 - 122.4 | |
| Silver | 54.2 | 49.38 | 91.1 | 74.7 - 125.3 | |
| Sodium | 914 | 902.0 | 98.7 | 71.6 - 128.0 | J |
| Thallium | 178 | 190.4 | 107.0 | 79.2 - 120.2 | |
| Vanadium | 56.3 | 56.16 | 99.8 | 77.1 - 122.9 | |
| Zinc | 198 | 199.3 | 100.7 | 82.3 - 117.2 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Matrix Spike - Batch: 460-427292

**Method: 6010C
Preparation: 3050B**

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Lab Sample ID: 460-130460-4 | Analysis Batch: 460-427491 | Instrument ID: ICP5 |
| Client Matrix: Solid | Prep Batch: 460-427292 | Lab File ID: 427292D1.asc |
| Dilution: 4.0 | Leach Batch: N/A | Initial Weight/Volume: 1.28 g |
| Analysis Date: 03/31/2017 2005 | Units: mg/Kg | Final Weight/Volume: 50 mL |
| Prep Date: 03/30/2017 1907 | | |
| Leach Date: N/A | | |

| Analyte | Sample | Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------|-------------|--------------|--------|--------|----------|------|
| Aluminum | 13300 | | 168 | 14030 | 453 | 75 - 125 | 4 |
| Antimony | 3.5 | U | 42.1 | 17.13 | 41 | 75 - 125 | N |
| Arsenic | 2.6 | U | 168 | 167.3 | 99 | 75 - 125 | |
| Barium | 104 | | 168 | 282.9 | 106 | 75 - 125 | |
| Beryllium | 0.68 | | 4.21 | 4.93 | 101 | 75 - 125 | |
| Cadmium | 0.70 | U | 4.21 | 4.14 | 98 | 75 - 125 | |
| Calcium | 1410 | | 1680 | 2817 | 84 | 75 - 125 | |
| Chromium | 23.6 | | 16.8 | 41.80 | 108 | 75 - 125 | |
| Cobalt | 13.6 | | 42.1 | 55.63 | 100 | 75 - 125 | |
| Copper | 43.9 | | 21.1 | 66.68 | 108 | 75 - 125 | |
| Iron | 22100 | | 84.2 | 23420 | 1617 | 75 - 125 | 4 |
| Lead | 6.3 | | 42.1 | 47.98 | 99 | 75 - 125 | |
| Magnesium | 6570 | | 1680 | 8670 | 125 | 75 - 125 | |
| Manganese | 270 | | 42.1 | 307.5 | 89 | 75 - 125 | 4 |
| Nickel | 26.9 | | 42.1 | 70.80 | 104 | 75 - 125 | |
| Potassium | 6230 | | 1680 | 8372 | 127 | 75 - 125 | N |
| Selenium | 3.5 | U | 168 | 161.3 | 96 | 75 - 125 | |
| Silver | 1.8 | U | 4.21 | 3.92 | 93 | 75 - 125 | |
| Sodium | 136 | J | 1680 | 1840 | 101 | 75 - 125 | |
| Thallium | 3.5 | U | 168 | 167.7 | 100 | 75 - 125 | |
| Vanadium | 19.7 | | 42.1 | 63.58 | 104 | 75 - 125 | |
| Zinc | 80.2 | | 42.1 | 123.2 | 102 | 75 - 125 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Duplicate - Batch: 460-427292

**Method: 6010C
Preparation: 3050B**

Lab Sample ID: 460-130460-4
 Client Matrix: Solid
 Dilution: 4.0
 Analysis Date: 03/31/2017 2008
 Prep Date: 03/30/2017 1907
 Leach Date: N/A

Analysis Batch: 460-427491
 Prep Batch: 460-427292
 Leach Batch: N/A
 Units: mg/Kg

Instrument ID: ICP5
 Lab File ID: 427292D1.asc
 Initial Weight/Volume: 1.32 g
 Final Weight/Volume: 50 mL

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|-----------|--------------------|--------|-----|-------|------|
| Aluminum | 13300 | 11810 | 12 | 20 | |
| Antimony | 3.5 U | 3.3 | NC | 20 | U |
| Arsenic | 2.6 U | 2.5 | NC | 20 | U |
| Barium | 104 | 95.38 | 8 | 20 | |
| Beryllium | 0.68 | 0.641 | 6 | 20 | |
| Cadmium | 0.70 U | 0.65 | NC | 20 | U |
| Calcium | 1410 | 1349 | 4 | 20 | |
| Chromium | 23.6 | 20.72 | 13 | 20 | |
| Cobalt | 13.6 | 11.73 | 15 | 20 | |
| Copper | 43.9 | 39.42 | 11 | 20 | |
| Iron | 22100 | 19720 | 11 | 20 | |
| Lead | 6.3 | 5.32 | 18 | 20 | |
| Magnesium | 6570 | 5984 | 9 | 20 | |
| Manganese | 270 | 236.1 | 13 | 20 | |
| Nickel | 26.9 | 24.39 | 10 | 20 | |
| Potassium | 6230 | 5752 | 8 | 20 | |
| Selenium | 3.5 U | 3.3 | NC | 20 | U |
| Silver | 1.8 U | 1.6 | NC | 20 | U |
| Sodium | 136 J | 127.0 | 7 | 20 | J |
| Thallium | 3.5 U | 3.3 | NC | 20 | U |
| Vanadium | 19.7 | 17.64 | 11 | 20 | |
| Zinc | 80.2 | 72.26 | 10 | 20 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-427352

Method: 6020A Preparation: 3010A

| | | | | | |
|----------------|----------------------|-----------------|------------|------------------------|-----------|
| Lab Sample ID: | MB 460-427352/1-A ^2 | Analysis Batch: | 460-427865 | Instrument ID: | ICPMS3 |
| Client Matrix: | Water | Prep Batch: | 460-427352 | Lab File ID: | 056SMPL.d |
| Dilution: | 2.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 04/02/2017 2009 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/31/2017 0750 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|-----------|--------|------|------|------|
| Aluminum | 40.0 | U | 18.2 | 40.0 |
| Antimony | 2.0 | U | 0.62 | 2.0 |
| Arsenic | 2.0 | U | 0.64 | 2.0 |
| Barium | 4.0 | U | 1.2 | 4.0 |
| Beryllium | 0.80 | U | 0.24 | 0.80 |
| Cadmium | 2.0 | U | 0.71 | 2.0 |
| Calcium | 200 | U | 60.5 | 200 |
| Chromium | 4.0 | U | 1.3 | 4.0 |
| Cobalt | 4.0 | U | 1.3 | 4.0 |
| Copper | 4.0 | U | 1.4 | 4.0 |
| Iron | 120 | U | 42.4 | 120 |
| Lead | 1.2 | U | 0.38 | 1.2 |
| Magnesium | 200 | U | 63.6 | 200 |
| Manganese | 8.0 | U | 2.5 | 8.0 |
| Nickel | 4.0 | U | 1.4 | 4.0 |
| Potassium | 200 | U | 91.4 | 200 |
| Selenium | 10.0 | U | 0.73 | 10.0 |
| Silver | 2.0 | U | 1.3 | 2.0 |
| Sodium | 200 | U | 69.0 | 200 |
| Thallium | 0.80 | U | 0.26 | 0.80 |
| Vanadium | 4.0 | U | 1.9 | 4.0 |
| Zinc | 16.0 | U | 7.0 | 16.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample - Batch: 460-427352

Method: 6020A
Preparation: 3010A

| | | |
|--------------------------------------|----------------------------|------------------------------|
| Lab Sample ID: LCS 460-427352/2-A ^2 | Analysis Batch: 460-427865 | Instrument ID: ICPMS3 |
| Client Matrix: Water | Prep Batch: 460-427352 | Lab File ID: 057SMPL.d |
| Dilution: 2.0 | Leach Batch: N/A | Initial Weight/Volume: 50 mL |
| Analysis Date: 04/02/2017 2011 | Units: ug/L | Final Weight/Volume: 50 mL |
| Prep Date: 03/31/2017 0750 | | |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|----------|------|
| Aluminum | 2500 | 2439 | 98 | 80 - 120 | |
| Antimony | 25.0 | 25.08 | 100 | 80 - 120 | |
| Arsenic | 50.0 | 48.36 | 97 | 80 - 120 | |
| Barium | 50.0 | 49.66 | 99 | 80 - 120 | |
| Beryllium | 25.0 | 24.42 | 98 | 80 - 120 | |
| Cadmium | 25.0 | 24.19 | 97 | 80 - 120 | |
| Calcium | 2500 | 2537 | 101 | 80 - 120 | |
| Chromium | 50.0 | 50.01 | 100 | 80 - 120 | |
| Cobalt | 25.0 | 25.42 | 102 | 80 - 120 | |
| Copper | 50.0 | 50.70 | 101 | 80 - 120 | |
| Iron | 2500 | 2482 | 99 | 80 - 120 | |
| Lead | 25.0 | 24.87 | 99 | 80 - 120 | |
| Magnesium | 2500 | 2518 | 101 | 80 - 120 | |
| Manganese | 250 | 256.6 | 103 | 80 - 120 | |
| Nickel | 50.0 | 49.65 | 99 | 80 - 120 | |
| Potassium | 2500 | 2534 | 101 | 80 - 120 | |
| Selenium | 50.0 | 45.06 | 90 | 80 - 120 | |
| Silver | 25.0 | 20.38 | 82 | 80 - 120 | |
| Sodium | 2500 | 2625 | 105 | 80 - 120 | |
| Thallium | 20.0 | 19.70 | 99 | 80 - 120 | |
| Vanadium | 50.0 | 49.85 | 100 | 80 - 120 | |
| Zinc | 250 | 242.6 | 97 | 80 - 120 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Matrix Spike - Batch: 460-427352

Method: 6020A
Preparation: 3010A

| | | |
|---------------------------------------|----------------------------|------------------------------|
| Lab Sample ID: 460-130527-E-2-E MS ^2 | Analysis Batch: 460-427865 | Instrument ID: ICPMS3 |
| Client Matrix: Water | Prep Batch: 460-427352 | Lab File ID: 059SMPL.d |
| Dilution: 2.0 | Leach Batch: N/A | Initial Weight/Volume: 50 mL |
| Analysis Date: 04/02/2017 2016 | Units: ug/L | Final Weight/Volume: 50 mL |
| Prep Date: 03/31/2017 0750 | | |
| Leach Date: N/A | | |

| Analyte | Sample | Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------|-------------|--------------|--------|--------|----------|------|
| Aluminum | 403 | | 2500 | 2817 | 97 | 75 - 125 | |
| Antimony | 129 | | 25.0 | 150.1 | 85 | 75 - 125 | 4 |
| Barium | 20.4 | | 50.0 | 70.27 | 100 | 75 - 125 | |
| Beryllium | 0.80 | U | 25.0 | 25.46 | 102 | 75 - 125 | |
| Cadmium | 2.0 | U | 25.0 | 24.51 | 98 | 75 - 125 | |
| Calcium | 61500 | | 2500 | 61730 | 11 | 75 - 125 | 4 |
| Chromium | 2.9 | J | 50.0 | 52.60 | 99 | 75 - 125 | |
| Cobalt | 2.7 | J | 25.0 | 27.63 | 100 | 75 - 125 | |
| Copper | 16.8 | | 50.0 | 66.23 | 99 | 75 - 125 | |
| Iron | 1660 | | 2500 | 4075 | 97 | 75 - 125 | |
| Lead | 2.6 | | 25.0 | 27.39 | 99 | 75 - 125 | |
| Magnesium | 2010 | | 2500 | 4424 | 97 | 75 - 125 | |
| Manganese | 166 | | 250 | 418.0 | 101 | 75 - 125 | |
| Nickel | 6.7 | | 50.0 | 55.69 | 98 | 75 - 125 | |
| Potassium | 21400 | | 2500 | 23220 | 73 | 75 - 125 | 4 |
| Selenium | 0.91 | J | 50.0 | 39.63 | 77 | 75 - 125 | |
| Silver | 2.0 | U | 25.0 | 20.28 | 81 | 75 - 125 | |
| Sodium | 64200 | | 2500 | 64540 | 15 | 75 - 125 | 4 |
| Thallium | 0.80 | U | 20.0 | 19.77 | 99 | 75 - 125 | |
| Vanadium | 8.5 | | 50.0 | 54.62 | 92 | 75 - 125 | |
| Zinc | 9.3 | J | 250 | 252.6 | 97 | 75 - 125 | |

Matrix Spike - Batch: 460-427352

Method: 6020A
Preparation: 3010A

| | | |
|---------------------------------------|----------------------------|------------------------------|
| Lab Sample ID: 460-130527-E-2-E MS ^2 | Analysis Batch: 460-427907 | Instrument ID: ICPMS3 |
| Client Matrix: Water | Prep Batch: 460-427352 | Lab File ID: 022SMPL.d |
| Dilution: 2.0 | Leach Batch: N/A | Initial Weight/Volume: 50 mL |
| Analysis Date: 04/03/2017 1308 | Units: ug/L | Final Weight/Volume: 50 mL |
| Prep Date: 03/31/2017 0750 | | |
| Leach Date: N/A | | |

| Analyte | Sample | Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------|-------------|--------------|--------|--------|----------|------|
| Arsenic | 30.0 | | 50.0 | 78.46 | 97 | 75 - 125 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Duplicate - Batch: 460-427352

Method: 6020A
Preparation: 3010A

| | | |
|---------------------------------------|----------------------------|------------------------------|
| Lab Sample ID: 460-130527-B-2-B DU ^2 | Analysis Batch: 460-427865 | Instrument ID: ICPMS3 |
| Client Matrix: Water | Prep Batch: 460-427352 | Lab File ID: 060SMPL.d |
| Dilution: 2.0 | Leach Batch: N/A | Initial Weight/Volume: 50 mL |
| Analysis Date: 04/02/2017 2019 | Units: ug/L | Final Weight/Volume: 50 mL |
| Prep Date: 03/31/2017 0750 | | |
| Leach Date: N/A | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|-----------|--------------------|--------|-----|-------|------|
| Aluminum | 403 | 409.1 | 2 | 20 | |
| Antimony | 129 | 132.9 | 3 | 20 | |
| Arsenic | 30.0 | 30.04 | 0.2 | 20 | |
| Barium | 20.4 | 21.23 | 4 | 20 | |
| Beryllium | 0.80 U | 0.80 | NC | 20 | U |
| Cadmium | 2.0 U | 2.0 | NC | 20 | U |
| Calcium | 61500 | 62400 | 2 | 20 | |
| Chromium | 2.9 J | 2.73 | 6 | 20 | J |
| Cobalt | 2.7 J | 2.74 | 2 | 20 | J |
| Copper | 16.8 | 17.17 | 2 | 20 | |
| Iron | 1660 | 1695 | 2 | 20 | |
| Lead | 2.6 | 2.65 | 2 | 20 | |
| Magnesium | 2010 | 2037 | 2 | 20 | |
| Manganese | 166 | 170.6 | 3 | 20 | |
| Nickel | 6.7 | 6.66 | 0 | 20 | |
| Potassium | 21400 | 21840 | 2 | 20 | |
| Selenium | 0.91 J | 0.894 | 2 | 20 | J |
| Silver | 2.0 U | 2.0 | NC | 20 | U |
| Sodium | 64200 | 65420 | 2 | 20 | |
| Thallium | 0.80 U | 0.80 | NC | 20 | U |
| Vanadium | 8.5 | 8.56 | 0.3 | 20 | |
| Zinc | 9.3 J | 9.54 | 3 | 20 | J |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-428185

Method: 6020A Preparation: 3010A

Lab Sample ID: MB 460-428185/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/04/2017 2244
Prep Date: 04/04/2017 1813
Leach Date: N/A

Analysis Batch: 460-428349
Prep Batch: 460-428185
Leach Batch: N/A
Units: ug/L

Instrument ID: ICPMS3
Lab File ID: 090SMPL.d
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

| Analyte | Result | Qual | MDL | RL |
|-----------|--------|------|------|------|
| Aluminum | 20.0 | U | 9.1 | 20.0 |
| Antimony | 1.0 | U | 0.31 | 1.0 |
| Arsenic | 1.0 | U | 0.32 | 1.0 |
| Barium | 2.0 | U | 0.61 | 2.0 |
| Beryllium | 0.40 | U | 0.12 | 0.40 |
| Cadmium | 1.0 | U | 0.36 | 1.0 |
| Calcium | 100 | U | 30.3 | 100 |
| Chromium | 2.0 | U | 0.66 | 2.0 |
| Cobalt | 2.0 | U | 0.65 | 2.0 |
| Copper | 2.0 | U | 0.68 | 2.0 |
| Iron | 60.0 | U | 21.2 | 60.0 |
| Lead | 0.60 | U | 0.19 | 0.60 |
| Magnesium | 100 | U | 31.8 | 100 |
| Manganese | 4.0 | U | 1.2 | 4.0 |
| Nickel | 2.0 | U | 0.68 | 2.0 |
| Potassium | 100 | U | 45.7 | 100 |
| Selenium | 5.0 | U | 0.37 | 5.0 |
| Silver | 1.0 | U | 0.64 | 1.0 |
| Sodium | 100 | U | 34.5 | 100 |
| Thallium | 0.40 | U | 0.13 | 0.40 |
| Vanadium | 2.0 | U | 0.95 | 2.0 |
| Zinc | 8.0 | U | 3.5 | 8.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Lab Control Sample - Batch: 460-428185

Method: 6020A
Preparation: 3010A

| | | | | | |
|----------------|--------------------|-----------------|------------|------------------------|-----------|
| Lab Sample ID: | LCS 460-428185/2-A | Analysis Batch: | 460-428349 | Instrument ID: | ICPMS3 |
| Client Matrix: | Water | Prep Batch: | 460-428185 | Lab File ID: | 091SMPL.d |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 10 mL |
| Analysis Date: | 04/04/2017 2247 | Units: | ug/L | Final Weight/Volume: | 10 mL |
| Prep Date: | 04/04/2017 1813 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|----------|------|
| Aluminum | 500 | 484.8 | 97 | 80 - 120 | |
| Antimony | 5.00 | 4.93 | 99 | 80 - 120 | |
| Arsenic | 10.0 | 9.93 | 99 | 80 - 120 | |
| Barium | 10.0 | 9.94 | 99 | 80 - 120 | |
| Beryllium | 5.00 | 4.69 | 94 | 80 - 120 | |
| Cadmium | 5.00 | 4.80 | 96 | 80 - 120 | |
| Calcium | 500 | 501.0 | 100 | 80 - 120 | |
| Chromium | 10.0 | 9.73 | 97 | 80 - 120 | |
| Cobalt | 5.00 | 4.88 | 98 | 80 - 120 | |
| Copper | 10.0 | 9.91 | 99 | 80 - 120 | |
| Iron | 500 | 473.8 | 95 | 80 - 120 | |
| Lead | 5.00 | 4.82 | 96 | 80 - 120 | |
| Magnesium | 500 | 490.7 | 98 | 80 - 120 | |
| Manganese | 50.0 | 49.58 | 99 | 80 - 120 | |
| Nickel | 10.0 | 9.84 | 98 | 80 - 120 | |
| Potassium | 500 | 488.2 | 98 | 80 - 120 | |
| Selenium | 10.0 | 10.50 | 105 | 80 - 120 | |
| Silver | 5.00 | 5.16 | 103 | 80 - 120 | |
| Sodium | 500 | 497.5 | 99 | 80 - 120 | |
| Thallium | 4.00 | 3.86 | 96 | 80 - 120 | |
| Vanadium | 10.0 | 9.54 | 95 | 80 - 120 | |
| Zinc | 50.0 | 48.13 | 96 | 80 - 120 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Matrix Spike - Batch: 460-428185

Method: 6020A
Preparation: 3010A
Dissolved

| | | |
|---------------------------------------|----------------------------|------------------------------|
| Lab Sample ID: 460-130174-I-1-C MS ^2 | Analysis Batch: 460-428349 | Instrument ID: ICPMS3 |
| Client Matrix: Water | Prep Batch: 460-428185 | Lab File ID: 092SMPL.d |
| Dilution: 2.0 | Leach Batch: N/A | Initial Weight/Volume: 10 mL |
| Analysis Date: 04/04/2017 2249 | Units: ug/L | Final Weight/Volume: 10 mL |
| Prep Date: 04/04/2017 1813 | | |
| Leach Date: N/A | | |

| Analyte | Sample | Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------|-------------|--------------|--------|--------|----------|------|
| Aluminum | 40.0 | U | 1000 | 1024 | 102 | 75 - 125 | |
| Antimony | 2.0 | U | 10.0 | 9.13 | 91 | 75 - 125 | |
| Arsenic | 9.6 | | 20.0 | 30.41 | 104 | 75 - 125 | |
| Barium | 376 | | 20.0 | 397.8 | 110 | 75 - 125 | 4 |
| Beryllium | 0.80 | U | 10.0 | 10.35 | 104 | 75 - 125 | |
| Cadmium | 2.0 | U | 10.0 | 10.10 | 101 | 75 - 125 | |
| Calcium | 178000 | | 1000 | 174600 | -380 | 75 - 125 | 4 |
| Chromium | 4.9 | | 20.0 | 24.87 | 100 | 75 - 125 | |
| Cobalt | 13.5 | | 10.0 | 23.23 | 97 | 75 - 125 | |
| Copper | 4.0 | U | 20.0 | 18.95 | 95 | 75 - 125 | |
| Iron | 71500 | | 1000 | 71590 | 5 | 75 - 125 | 4 |
| Lead | 1.2 | U | 10.0 | 10.30 | 103 | 75 - 125 | |
| Magnesium | 106000 | | 1000 | 104400 | -138 | 75 - 125 | 4 |
| Manganese | 12900 | | 100 | 12800 | -118 | 75 - 125 | 4 |
| Nickel | 7.3 | | 20.0 | 26.34 | 95 | 75 - 125 | |
| Potassium | 6380 | | 1000 | 7230 | 85 | 75 - 125 | 4 |
| Selenium | 10.0 | U | 20.0 | 22.59 | 113 | 75 - 125 | |
| Silver | 2.0 | U | 10.0 | 9.74 | 97 | 75 - 125 | |
| Sodium | 284000 | | 1000 | 277200 | -633 | 75 - 125 | 4 |
| Thallium | 0.80 | U | 8.00 | 8.30 | 104 | 75 - 125 | |
| Vanadium | 2.1 | J | 20.0 | 22.44 | 102 | 75 - 125 | |
| Zinc | 16.0 | U | 100 | 95.84 | 96 | 75 - 125 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Duplicate - Batch: 460-428185

**Method: 6020A
Preparation: 3010A
Dissolved**

| | | |
|---------------------------------------|----------------------------|------------------------------|
| Lab Sample ID: 460-130174-I-1-B DU ^2 | Analysis Batch: 460-428349 | Instrument ID: ICPMS3 |
| Client Matrix: Water | Prep Batch: 460-428185 | Lab File ID: 093SMPL.d |
| Dilution: 2.0 | Leach Batch: N/A | Initial Weight/Volume: 10 mL |
| Analysis Date: 04/04/2017 2252 | Units: ug/L | Final Weight/Volume: 10 mL |
| Prep Date: 04/04/2017 1813 | | |
| Leach Date: N/A | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|-----------|--------------------|--------|-----|-------|------|
| Aluminum | 40.0 U | 40.0 | NC | 20 | U |
| Antimony | 2.0 U | 2.0 | NC | 20 | U |
| Arsenic | 9.6 | 9.75 | 1 | 20 | |
| Barium | 376 | 382.5 | 2 | 20 | |
| Beryllium | 0.80 U | 0.80 | NC | 20 | U |
| Cadmium | 2.0 U | 2.0 | NC | 20 | U |
| Calcium | 178000 | 181200 | 2 | 20 | |
| Chromium | 4.9 | 4.97 | 2 | 20 | |
| Cobalt | 13.5 | 13.75 | 2 | 20 | |
| Copper | 4.0 U | 4.0 | NC | 20 | U |
| Iron | 71500 | 73030 | 2 | 20 | |
| Lead | 1.2 U | 1.2 | NC | 20 | U |
| Magnesium | 106000 | 107200 | 1 | 20 | |
| Manganese | 12900 | 13090 | 1 | 20 | |
| Nickel | 7.3 | 7.36 | 0.5 | 20 | |
| Potassium | 6380 | 6457 | 1 | 20 | |
| Silver | 2.0 U | 2.0 | NC | 20 | U |
| Sodium | 284000 | 286300 | 1 | 20 | |
| Thallium | 0.80 U | 0.80 | NC | 20 | U |
| Vanadium | 2.1 J | 2.15 | 2 | 20 | J |
| Zinc | 16.0 U | 16.0 | NC | 20 | U |

Duplicate - Batch: 460-428185

**Method: 6020A
Preparation: 3010A
Dissolved**

| | | |
|---------------------------------------|----------------------------|------------------------------|
| Lab Sample ID: 460-130174-I-1-B DU ^2 | Analysis Batch: 460-428349 | Instrument ID: ICPMS3 |
| Client Matrix: Water | Prep Batch: 460-428185 | Lab File ID: 200SMPL.d |
| Dilution: 2.0 | Leach Batch: N/A | Initial Weight/Volume: 10 mL |
| Analysis Date: 04/05/2017 0316 | Units: ug/L | Final Weight/Volume: 10 mL |
| Prep Date: 04/04/2017 1813 | | |
| Leach Date: N/A | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|----------|--------------------|--------|-----|-------|------|
| Selenium | 10.0 U | 10.0 | NC | 20 | U |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-426917

Lab Sample ID: MB 460-426914/1-B
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/29/2017 1437
 Prep Date: 03/29/2017 1144
 Leach Date: N/A

Analysis Batch: 460-426971
 Prep Batch: 460-426917
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A
 Dissolved**

Instrument ID: LEEMAN6
 Lab File ID: 426913hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Result | Qual | MDL | RL |
|---------|--------|------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

Lab Control Sample - Batch: 460-426917

Lab Sample ID: LCS 460-426917/3-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/29/2017 1439
 Prep Date: 03/29/2017 1144
 Leach Date: N/A

Analysis Batch: 460-426971
 Prep Batch: 460-426917
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A**

Instrument ID: LEEMAN6
 Lab File ID: 426913hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|----------|------|
| Mercury | 1.00 | 1.00 | 100 | 80 - 120 | |

Matrix Spike - Batch: 460-426917

Lab Sample ID: 460-130340-D-4-E MS
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/29/2017 1449
 Prep Date: 03/29/2017 1144
 Leach Date: N/A

Analysis Batch: 460-426971
 Prep Batch: 460-426917
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A
 Dissolved**

Instrument ID: LEEMAN6
 Lab File ID: 426913hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Sample Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------------|--------------|--------|--------|----------|------|
| Mercury | 0.20 U | 1.00 | 1.14 | 114 | 80 - 120 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Duplicate - Batch: 460-426917

Method: 7470A
Preparation: 7470A
Dissolved

Lab Sample ID: 460-130340-A-4-B DU
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/29/2017 1443
Prep Date: 03/29/2017 1144
Leach Date: N/A

Analysis Batch: 460-426971
Prep Batch: 460-426917
Leach Batch: N/A
Units: ug/L

Instrument ID: LEEMAN6
Lab File ID: 426913hg1.CSV
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---------|--------------------|--------|-----|-------|------|
| Mercury | 0.20 U | 0.20 | NC | 20 | U |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-427165

Method: 7470A
Preparation: 7470A

Lab Sample ID: MB 460-427165/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2017 1414
Prep Date: 03/30/2017 1235
Leach Date: N/A

Analysis Batch: 460-427250
Prep Batch: 460-427165
Leach Batch: N/A
Units: ug/L

Instrument ID: LEEMAN6
Lab File ID: 427165hg1.CSV
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

| Analyte | Result | Qual | MDL | RL |
|---------|--------|------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

Lab Control Sample - Batch: 460-427165

Method: 7470A
Preparation: 7470A

Lab Sample ID: LCS 460-427165/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2017 1416
Prep Date: 03/30/2017 1235
Leach Date: N/A

Analysis Batch: 460-427250
Prep Batch: 460-427165
Leach Batch: N/A
Units: ug/L

Instrument ID: LEEMAN6
Lab File ID: 427165hg1.CSV
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|----------|------|
| Mercury | 1.00 | 0.922 | 92 | 80 - 120 | |

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427165**

Method: 7470A
Preparation: 7470A

MS Lab Sample ID: 460-130527-E-2-B MS
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2017 1422
Prep Date: 03/30/2017 1235
Leach Date: N/A

Analysis Batch: 460-427250
Prep Batch: 460-427165
Leach Batch: N/A

Instrument ID: LEEMAN6
Lab File ID: 427165hg1.CSV
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

MSD Lab Sample ID: 460-130527-E-2-C MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2017 1424
Prep Date: 03/30/2017 1235
Leach Date: N/A

Analysis Batch: 460-427250
Prep Batch: 460-427165
Leach Batch: N/A

Instrument ID: LEEMAN6
Lab File ID: 427165hg1.CSV
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Mercury | 105 | 103 | 80 - 120 | 2 | 20 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Duplicate - Batch: 460-427165

Method: 7470A
Preparation: 7470A

Lab Sample ID: 460-130527-B-2-A DU
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/30/2017 1420
Prep Date: 03/30/2017 1235
Leach Date: N/A

Analysis Batch: 460-427250
Prep Batch: 460-427165
Leach Batch: N/A
Units: ug/L

Instrument ID: LEEMAN6
Lab File ID: 427165hg1.CSV
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---------|--------------------|--------|-----|-------|------|
| Mercury | 0.20 U | 0.20 | NC | 20 | U |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Method Blank - Batch: 460-427055

Lab Sample ID: MB 460-427055/10-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/30/2017 0913
 Prep Date: 03/30/2017 0357
 Leach Date: N/A

Analysis Batch: 460-427152
 Prep Batch: 460-427055
 Leach Batch: N/A
 Units: mg/Kg

**Method: 7471B
 Preparation: 7471B**

Instrument ID: LEEMAN5
 Lab File ID: 427055HG1.PRN
 Initial Weight/Volume: 0.60 g
 Final Weight/Volume: 50 mL

| Analyte | Result | Qual | MDL | RL |
|---------|--------|------|-------|-------|
| Mercury | 0.017 | U | 0.011 | 0.017 |

LCS-Certified Reference Material - Batch: 460-427055

Lab Sample ID: LCSSRM 460-427055/11-
 Client Matrix: Solid
 Dilution: 20
 Analysis Date: 03/30/2017 0915
 Prep Date: 03/30/2017 0357
 Leach Date: N/A

Analysis Batch: 460-427152
 Prep Batch: 460-427055
 Leach Batch: N/A
 Units: mg/Kg

**Method: 7471B
 Preparation: 7471B**

Instrument ID: LEEMAN5
 Lab File ID: 427055HG1.PRN
 Initial Weight/Volume: 0.60 g
 Final Weight/Volume: 50 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|--------------|------|
| Mercury | 12.3 | 12.53 | 101.9 | 64.1 - 135.8 | |

**Matrix Spike/
 Matrix Spike Duplicate Recovery Report - Batch: 460-427055**

MS Lab Sample ID: 460-130548-A-12-C MS
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/30/2017 0921
 Prep Date: 03/30/2017 0357
 Leach Date: N/A

Analysis Batch: 460-427152
 Prep Batch: 460-427055
 Leach Batch: N/A

**Method: 7471B
 Preparation: 7471B**

Instrument ID: LEEMAN5
 Lab File ID: 427055HG1.PRN
 Initial Weight/Volume: 0.64 g
 Final Weight/Volume: 50 mL

MSD Lab Sample ID: 460-130548-A-12-D MSD
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/30/2017 0923
 Prep Date: 03/30/2017 0357
 Leach Date: N/A

Analysis Batch: 460-427152
 Prep Batch: 460-427055
 Leach Batch: N/A

Instrument ID: LEEMAN5
 Lab File ID: 427055HG1.PRN
 Initial Weight/Volume: 0.64 g
 Final Weight/Volume: 50 mL

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Mercury | 95 | 92 | 75 - 125 | 2 | 20 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Duplicate - Batch: 460-427055

Method: 7471B
Preparation: 7471B

| | | | | | |
|----------------|----------------------|-----------------|------------|------------------------|---------------|
| Lab Sample ID: | 460-130548-A-12-B DU | Analysis Batch: | 460-427152 | Instrument ID: | LEEMAN5 |
| Client Matrix: | Solid | Prep Batch: | 460-427055 | Lab File ID: | 427055HG1.PRN |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 0.64 g |
| Analysis Date: | 03/30/2017 0919 | Units: | mg/Kg | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/30/2017 0357 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---------|--------------------|--------|-----|-------|------|
| Mercury | 0.025 | 0.0219 | 13 | 20 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130460-1

Duplicate - Batch: 460-427149

**Method: Moisture
Preparation: N/A**

| | | | | | |
|----------------|-------------------|-----------------|------------|------------------------|-----------------------|
| Lab Sample ID: | 460-130463-G-7 DU | Analysis Batch: | 460-427149 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Solid | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/30/2017 1140 | Units: | % | Final Weight/Volume: | |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|------------------|--------------------|--------|-----|-------|------|
| Percent Moisture | 13.4 | 13.9 | 3 | 20 | |
| Percent Solids | 86.6 | 86.1 | 0.5 | 20 | |

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



460-130460 Chain of Custody

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

CHAIN C

EST

Page ___ of ___

Name (for Report and Invoice)

Matthews Leary

Sampler Name (Printed)

Matthews Leary

Site/Project Identification

AMNH

Company

ALB RF

P. O. #

State (Location of site): NJ: NY: Other:

Address

490 Park Ave S

Analysis Turnaround Time

Standard Rush Charges Authorized For:

2 Week 1 Week Other

City

NY

State

NY

Phone

(631) 9434763

Fax

Regulatory Program:

LAB USE ONLY

Project No:

Job No: 130460

Sample Numbers

Sample Identification

SB-8(1-2)-170328

SB-8(4.5-5.5)-170328

SB-5(1-2)-170328

SB-5(4.5-5.5)-170328

GW-5-170328

Date

3/25

Time

0800

0915

0835

0845

Matrix

Soil

Soil

Soil

GW

No. of Cont.

1

1

1

1

TCL VOCs

X

X

X

X

TCL SVOCs

X

X

X

X

PCBs

X

X

X

X

Pest

X

X

X

X

TAL Metals

X

X

X

X

Filtered TAL Metals

X

X

X

X

Preservation Used (1 = ICE, 2 = HCl, 3 = H₂SO₄, 4 = HNO₃, 5 = NaOH, 6 = Other, 7 = Other)

Water:

Special Instructions

ATA Deliv.

Water Metals Filtered (Yes/No)?

Relinquished by

ALB RF

Company

ALB RF

Date / Time

3/25 1445

Received by

Company

Relinquished by

Company

Date / Time

3/25/17 17:22

Received by

Van Perno

Company

TA 61

Relinquished by

Company

Date / Time

Received by

Company

Relinquished by

Company

Date / Time

Received by

Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Massachusetts (M-NJ312), North Carolina (No. 578)

2.5 / 2.11 JRA 8 WDO

TAL - 0016 (0715)

SHORT HOLD

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-130460-1

Login Number: 130460
List Number: 1
Creator: Rivera, Kenneth

List Source: TestAmerica Edison

| Question | Answer | Comment |
|--|--------|---|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | N/A | Not present |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 2.5°C, IR #8 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | No analysis requiring residual chlorine check assigned. |

ANALYTICAL REPORT

Job Number: 460-130545-1

Job Description: American Museum of Natural History

For:
AKRF Inc
440 Park Avenue South
7th Floor
New York, NY 10016
Attention: Mr. Eric Park



Approved for release.
Allison L. Bennett
Project Management Assistant II
4/6/2017 4:31 PM

Designee for
Melissa Haas, Project Manager I
777 New Durham Road, Edison, NJ, 08817
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04/06/2017

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LAO00132

TestAmerica Laboratories, Inc.

TestAmerica Edison 777 New Durham Road, Edison, NJ 08817
Tel (732) 549-3900 Fax (732) 549-3679 www.testamericainc.com



Job Number: 460-130545-1

Job Description: American Museum of Natural History

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Approved for release.
Allison L. Bennett
Project Management Assistant II
4/6/2017 4:31 PM

Designee for
Melissa Haas

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CASE NARRATIVE

Client: AKRF Inc

Project: American Museum of Natural History

Report Number: 460-130545-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 3/29/2017 6:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5° C.

Receipt Exceptions

Soil vapor samples for TO-15 were included on this COC; however, the client was notified that TO-15 analysis is reported under a separate job number out of the TestAmerica Burlington lab. The soil vapor samples were shipped directly to TA Burlington and logged in separately from the soil and groundwater samples.

The following sample was canceled by the client on 04/06/17: GW-6-170329 (460-130545-3).

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples SB-6(0-1)-170329 (460-130545-1), SB-6(18-19)-170329 (460-130545-2), SB-1(1-2)-170329 (460-130545-4) and SB-1(17-18)-170329 (460-130545-5) were analyzed for Volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260C. The samples were prepared on 03/30/2017 and analyzed on 04/02/2017 and 04/03/2017.

Acetone was detected in method blank MB 460-427321/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Acetone was detected in method blank MB 460-427729/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Acetone was detected in method blank LB3 460-427077/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analysis.

All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample GW-1-170329 (460-130545-6) was analyzed for Volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 04/04/2017.

The continuing calibration verification (CCV) associated with batch 460-428037 recovered above the upper control limit for 1,4-Dioxane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

The laboratory control sample (LCS) analytical batch 460-428037 recovered outside control limits for the following analyte: 1,4-Dioxane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

cis-1,2-Dichloroethene failed the recovery criteria low for the MS of sample 460-130244-1 in batch 460-428037. 2-Butanone (MEK) failed the recovery criteria high.

For the MSD of sample 460-130244-1 in batch 460-428037, cis-1,2-Dichloroethene failed the recovery criteria low. 1,4-Dioxane and 2-Butanone (MEK) failed the recovery criteria high. Also, 1,4-Dioxane exceeded the RPD limit.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples SB-6(0-1)-170329 (460-130545-1), SB-6(18-19)-170329 (460-130545-2), SB-1(1-2)-170329 (460-130545-4) and SB-1(17-18)-170329 (460-130545-5) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 03/31/2017 and analyzed on 04/01/2017.

The continuing calibration verification (CCV) analyzed in batch 460-427556 was outside the method criteria for the following analyte(s): Acetophenone, 4-Nitrophenol, Diethyl phthalate, Isophorone, Bis(2-ethylhexyl) phthalate, Di-n-butyl phthalate, N-Nitrosodi-n-propylamine, 3-Nitroaniline, 2,4-Dinitrotoluene, 4-Nitroaniline and Di-n-octyl phthalate. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-427788 was outside the method criteria for the following analyte(s): 2,4-Dinitrophenol, 2,2'-oxybis[1-chloropropane] and 2-Nitroaniline. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Surrogates recoveries for the following laboratory control sample (LCS) associated with batch 460-427381 were outside limits. All spike recoveries were within limits. Sample has been qualified and reported.

2,4-Dinitrophenol, 2,4-Dinitrotoluene and 4,6-Dinitro-2-methylphenol failed the recovery criteria low for the MS of sample 460-130311-1 in batch 460-427556.

2,4-Dinitrophenol, 2,4-Dinitrotoluene and Diethyl phthalate failed the recovery criteria low for the MSD of sample 460-130311-1 in batch 460-427556.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample GW-1-170329 (460-130545-6) was analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 03/30/2017 and analyzed on 04/01/2017.

3,3'-Dichlorobenzidine, 3-Nitroaniline and 4-Nitroaniline failed the recovery criteria low for the MS of sample 460-130527-2 in batch 460-427561. Indeno[1,2,3-cd]pyrene failed the recovery criteria high.

3,3'-Dichlorobenzidine, 3-Nitroaniline and 4-Nitroaniline failed the recovery criteria low for the MSD of sample 460-130527-2 in batch 460-427561. Indeno[1,2,3-cd]pyrene failed the recovery criteria high.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Samples SB-6(0-1)-170329 (460-130545-1), SB-6(18-19)-170329 (460-130545-2), SB-1(1-2)-170329 (460-130545-4) and SB-1(17-18)-170329 (460-130545-5) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 03/31/2017 and analyzed on 04/02/2017.

Endosulfan II, Endosulfan sulfate, Endrin aldehyde and Endrin ketone failed the recovery criteria low for the MS of sample 460-130588-12 in batch 460-428039. 4,4'-DDT failed the recovery criteria high.

Endosulfan II, Endosulfan sulfate, Endrin aldehyde and Endrin ketone failed the recovery criteria low for the MSD of sample 460-130588-12 in batch 460-428039. 4,4'-DDT failed the recovery criteria high.

Refer to the QC report for details.

No other difficulties were encountered during the Pesticides analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Sample GW-1-170329 (460-130545-6) was analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 03/30/2017 and analyzed on 03/31/2017.

No difficulties were encountered during the pesticides analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples SB-6(0-1)-170329 (460-130545-1), SB-6(18-19)-170329 (460-130545-2), SB-1(1-2)-170329 (460-130545-4) and SB-1(17-18)-170329 (460-130545-5) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 03/31/2017 and analyzed on 04/02/2017.

DCB Decachlorobiphenyl failed the surrogate recovery criteria high for SB-1(1-2)-170329 (460-130545-4).

Refer to the QC report for details.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Sample GW-1-170329 (460-130545-6) was analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 03/30/2017 and analyzed on 03/31/2017.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

METALS

Samples SB-6(0-1)-170329 (460-130545-1), SB-6(18-19)-170329 (460-130545-2), SB-1(1-2)-170329 (460-130545-4) and SB-1(17-18)-170329 (460-130545-5) were analyzed for Metals in accordance with EPA SW-846 Methods 6010C. The samples were prepared on 03/30/2017 and analyzed on 03/31/2017.

Iron failed the recovery criteria low for the MS of sample 460-130542-1 in batch 460-427477. Aluminum failed the recovery criteria high.

Antimony, Iron and Manganese failed the recovery criteria low for the MS of sample SB-6(0-1)-170329MS (460-130545-1) in batch 460-427491. Aluminum and Lead failed the recovery criteria high.

Copper exceeded the RPD limit for the duplicate of sample SB-6(0-1)-170329DU (460-130545-1).

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

Sample SB-6(0-1)-170329 (460-130545-1)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

DISSOLVED METALS

Sample GW-1-170329 (460-130545-6) was analyzed for Dissolved Metals in accordance with EPA SW-846 Method 6020A. The samples were prepared on 04/04/2017 and analyzed on 04/05/2017.

Several analytes failed the recovery criteria low for the MS of sample 460-130174-1 in batch 460-428349.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the total metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS

Sample GW-1-170329 (460-130545-6) was analyzed for total metals in accordance with EPA SW-846 Method 6020A. The samples were prepared on 03/31/2017 and analyzed on 04/01/2017.

No difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples SB-6(0-1)-170329 (460-130545-1), SB-6(18-19)-170329 (460-130545-2), SB-1(1-2)-170329 (460-130545-4) and SB-1(17-18)-170329 (460-130545-5) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 03/30/2017.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

DISSOLVED MERCURY

Sample GW-1-170329 (460-130545-6) was analyzed for dissolved mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 03/31/2017.

No difficulties were encountered during the dissolved Hg analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Sample GW-1-170329 (460-130545-6) was analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 03/31/2017.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples SB-6(0-1)-170329 (460-130545-1), SB-6(18-19)-170329 (460-130545-2), SB-1(1-2)-170329 (460-130545-4) and SB-1(17-18)-170329 (460-130545-5) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 03/30/2017.

Percent Moisture exceeded the RPD limit for the duplicate of sample 460-130306-11.

Refer to the QC report for details.

No other difficulties were encountered during the %solids/moisture analysis.

All other quality control parameters were within the acceptance limits

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130545-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|-------------------------|--------|-----------|--------------------|-------|----------|
| 460-130545-1 | SB-6(0-1)-170329 | | | | | |
| Trichloroethene | | 0.31 | J | 1.1 | ug/Kg | 8260C |
| 2-Methylnaphthalene | | 12 | J | 390 | ug/Kg | 8270D |
| Acenaphthene | | 17 | J | 390 | ug/Kg | 8270D |
| Benzo[a]anthracene | | 180 | | 39 | ug/Kg | 8270D |
| Benzo[a]pyrene | | 160 | | 39 | ug/Kg | 8270D |
| Benzo[b]fluoranthene | | 240 | | 39 | ug/Kg | 8270D |
| Benzo[g,h,i]perylene | | 150 | J | 390 | ug/Kg | 8270D |
| Benzo[k]fluoranthene | | 100 | | 39 | ug/Kg | 8270D |
| Carbazole | | 15 | J | 390 | ug/Kg | 8270D |
| Chrysene | | 230 | J | 390 | ug/Kg | 8270D |
| Dibenzofuran | | 12 | J | 390 | ug/Kg | 8270D |
| Di-n-butyl phthalate | | 29 | J | 390 | ug/Kg | 8270D |
| Fluoranthene | | 360 | J | 390 | ug/Kg | 8270D |
| Fluorene | | 11 | J | 390 | ug/Kg | 8270D |
| Indeno[1,2,3-cd]pyrene | | 220 | | 39 | ug/Kg | 8270D |
| Isophorone | | 44 | J | 160 | ug/Kg | 8270D |
| Naphthalene | | 27 | J | 390 | ug/Kg | 8270D |
| Phenanthrene | | 230 | J | 390 | ug/Kg | 8270D |
| Pyrene | | 330 | J | 390 | ug/Kg | 8270D |
| 4,4'-DDD | | 26 | | 8.0 | ug/Kg | 8081B |
| 4,4'-DDE | | 47 | | 8.0 | ug/Kg | 8081B |
| 4,4'-DDT | | 82 | | 8.0 | ug/Kg | 8081B |
| Dieldrin | | 19 | | 2.4 | ug/Kg | 8081B |
| Endosulfan II | | 13 | | 8.0 | ug/Kg | 8081B |
| Endosulfan sulfate | | 22 | | 8.0 | ug/Kg | 8081B |
| Aluminum | | 12400 | | 36.7 | mg/Kg | 6010C |
| Arsenic | | 15.6 | | 2.8 | mg/Kg | 6010C |
| Barium | | 93.0 | | 36.7 | mg/Kg | 6010C |
| Beryllium | | 0.65 | | 0.37 | mg/Kg | 6010C |
| Calcium | | 1930 | | 919 | mg/Kg | 6010C |
| Chromium | | 20.9 | | 1.8 | mg/Kg | 6010C |
| Cobalt | | 7.0 | J | 9.2 | mg/Kg | 6010C |
| Copper | | 54.1 | | 4.6 | mg/Kg | 6010C |
| Iron | | 17800 | | 27.6 | mg/Kg | 6010C |
| Lead | | 129 | | 1.8 | mg/Kg | 6010C |
| Magnesium | | 2800 | | 919 | mg/Kg | 6010C |
| Manganese | | 266 | | 2.8 | mg/Kg | 6010C |
| Nickel | | 15.0 | | 7.3 | mg/Kg | 6010C |
| Potassium | | 1430 | | 919 | mg/Kg | 6010C |
| Sodium | | 69.9 | J | 919 | mg/Kg | 6010C |
| Vanadium | | 37.3 | | 9.2 | mg/Kg | 6010C |
| Zinc | | 90.8 | | 5.5 | mg/Kg | 6010C |
| Mercury | | 0.31 | | 0.019 | mg/Kg | 7471B |
| Percent Moisture | | 16.3 | | 1.0 | % | Moisture |
| Percent Solids | | 83.7 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130545-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|---------------------------|--------|-----------|--------------------|-------|----------|
| 460-130545-2 | SB-6(18-19)-170329 | | | | | |
| Acetone | | 11 | B | 4.7 | ug/Kg | 8260C |
| Aluminum | | 8560 | | 37.1 | mg/Kg | 6010C |
| Arsenic | | 4.6 | | 2.8 | mg/Kg | 6010C |
| Barium | | 54.6 | | 37.1 | mg/Kg | 6010C |
| Beryllium | | 0.56 | | 0.37 | mg/Kg | 6010C |
| Calcium | | 1550 | | 927 | mg/Kg | 6010C |
| Chromium | | 24.2 | | 1.9 | mg/Kg | 6010C |
| Cobalt | | 11.5 | | 9.3 | mg/Kg | 6010C |
| Copper | | 21.7 | | 4.6 | mg/Kg | 6010C |
| Iron | | 13200 | | 27.8 | mg/Kg | 6010C |
| Lead | | 8.5 | | 1.9 | mg/Kg | 6010C |
| Magnesium | | 2750 | | 927 | mg/Kg | 6010C |
| Manganese | | 180 | | 2.8 | mg/Kg | 6010C |
| Nickel | | 15.8 | | 7.4 | mg/Kg | 6010C |
| Potassium | | 1400 | | 927 | mg/Kg | 6010C |
| Sodium | | 65.9 | J | 927 | mg/Kg | 6010C |
| Vanadium | | 35.4 | | 9.3 | mg/Kg | 6010C |
| Zinc | | 34.0 | | 5.6 | mg/Kg | 6010C |
| Percent Moisture | | 13.0 | | 1.0 | % | Moisture |
| Percent Solids | | 87.0 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130545-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|-----------------------------|-------------------------|--------|-----------|--------------------|-------|----------|
| 460-130545-4 | SB-1(1-2)-170329 | | | | | |
| 1,1'-Biphenyl | | 84 | J | 390 | ug/Kg | 8270D |
| 2-Methylnaphthalene | | 320 | J | 390 | ug/Kg | 8270D |
| Acenaphthene | | 530 | | 390 | ug/Kg | 8270D |
| Acenaphthylene | | 36 | J | 390 | ug/Kg | 8270D |
| Anthracene | | 650 | | 390 | ug/Kg | 8270D |
| Benzo[a]anthracene | | 1300 | | 39 | ug/Kg | 8270D |
| Benzo[a]pyrene | | 1300 | | 39 | ug/Kg | 8270D |
| Benzo[b]fluoranthene | | 1600 | | 39 | ug/Kg | 8270D |
| Benzo[g,h,i]perylene | | 1100 | | 390 | ug/Kg | 8270D |
| Benzo[k]fluoranthene | | 560 | | 39 | ug/Kg | 8270D |
| Bis(2-ethylhexyl) phthalate | | 99 | J | 390 | ug/Kg | 8270D |
| Carbazole | | 220 | J | 390 | ug/Kg | 8270D |
| Chrysene | | 1500 | | 390 | ug/Kg | 8270D |
| Dibenz(a,h)anthracene | | 360 | | 39 | ug/Kg | 8270D |
| Dibenzofuran | | 380 | J | 390 | ug/Kg | 8270D |
| Di-n-butyl phthalate | | 110 | J | 390 | ug/Kg | 8270D |
| Fluoranthene | | 2800 | | 390 | ug/Kg | 8270D |
| Fluorene | | 420 | | 390 | ug/Kg | 8270D |
| Indeno[1,2,3-cd]pyrene | | 1400 | | 39 | ug/Kg | 8270D |
| Naphthalene | | 580 | | 390 | ug/Kg | 8270D |
| Phenanthrene | | 3300 | | 390 | ug/Kg | 8270D |
| Pyrene | | 2600 | | 390 | ug/Kg | 8270D |
| 4,4'-DDD | | 14 | | 8.0 | ug/Kg | 8081B |
| 4,4'-DDE | | 190 | | 8.0 | ug/Kg | 8081B |
| 4,4'-DDT | | 130 | | 8.0 | ug/Kg | 8081B |
| Dieldrin | | 9.2 | | 2.4 | ug/Kg | 8081B |
| Aluminum | | 11900 | | 39.1 | mg/Kg | 6010C |
| Arsenic | | 4.0 | | 2.9 | mg/Kg | 6010C |
| Barium | | 103 | | 39.1 | mg/Kg | 6010C |
| Beryllium | | 0.73 | | 0.39 | mg/Kg | 6010C |
| Calcium | | 1610 | | 978 | mg/Kg | 6010C |
| Chromium | | 24.9 | | 2.0 | mg/Kg | 6010C |
| Cobalt | | 9.9 | | 9.8 | mg/Kg | 6010C |
| Copper | | 29.2 | | 4.9 | mg/Kg | 6010C |
| Iron | | 23200 | | 29.4 | mg/Kg | 6010C |
| Lead | | 91.5 | | 2.0 | mg/Kg | 6010C |
| Magnesium | | 5250 | | 978 | mg/Kg | 6010C |
| Manganese | | 384 | | 2.9 | mg/Kg | 6010C |
| Nickel | | 25.4 | | 7.8 | mg/Kg | 6010C |
| Potassium | | 5210 | | 978 | mg/Kg | 6010C |
| Sodium | | 105 | J | 978 | mg/Kg | 6010C |
| Vanadium | | 39.9 | | 9.8 | mg/Kg | 6010C |
| Zinc | | 91.4 | | 5.9 | mg/Kg | 6010C |
| Mercury | | 0.40 | | 0.019 | mg/Kg | 7471B |
| Percent Moisture | | 16.2 | | 1.0 | % | Moisture |
| Percent Solids | | 83.8 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130545-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|---------------------------|--------|-----------|--------------------|-------|----------|
| 460-130545-5 | SB-1(17-18)-170329 | | | | | |
| Benzo[a]pyrene | | 17 | J | 39 | ug/Kg | 8270D |
| Benzo[b]fluoranthene | | 24 | J | 39 | ug/Kg | 8270D |
| Chrysene | | 21 | J | 390 | ug/Kg | 8270D |
| Di-n-butyl phthalate | | 15 | J | 390 | ug/Kg | 8270D |
| Fluoranthene | | 37 | J | 390 | ug/Kg | 8270D |
| Phenanthrene | | 37 | J | 390 | ug/Kg | 8270D |
| Pyrene | | 36 | J | 390 | ug/Kg | 8270D |
| 4,4'-DDE | | 8.4 | | 8.0 | ug/Kg | 8081B |
| 4,4'-DDT | | 11 | | 8.0 | ug/Kg | 8081B |
| Aluminum | | 9580 | | 38.5 | mg/Kg | 6010C |
| Barium | | 77.3 | | 38.5 | mg/Kg | 6010C |
| Beryllium | | 1.2 | | 0.38 | mg/Kg | 6010C |
| Calcium | | 2830 | | 962 | mg/Kg | 6010C |
| Chromium | | 25.1 | | 1.9 | mg/Kg | 6010C |
| Cobalt | | 15.5 | | 9.6 | mg/Kg | 6010C |
| Copper | | 33.9 | | 4.8 | mg/Kg | 6010C |
| Iron | | 34700 | | 28.8 | mg/Kg | 6010C |
| Lead | | 15.6 | | 1.9 | mg/Kg | 6010C |
| Magnesium | | 3600 | | 962 | mg/Kg | 6010C |
| Manganese | | 872 | | 2.9 | mg/Kg | 6010C |
| Nickel | | 25.1 | | 7.7 | mg/Kg | 6010C |
| Potassium | | 3650 | | 962 | mg/Kg | 6010C |
| Selenium | | 1.9 | J | 3.8 | mg/Kg | 6010C |
| Silver | | 0.36 | J | 1.9 | mg/Kg | 6010C |
| Sodium | | 120 | J | 962 | mg/Kg | 6010C |
| Vanadium | | 40.8 | | 9.6 | mg/Kg | 6010C |
| Zinc | | 72.7 | | 5.8 | mg/Kg | 6010C |
| Mercury | | 0.050 | | 0.020 | mg/Kg | 7471B |
| Percent Moisture | | 16.1 | | 1.0 | % | Moisture |
| Percent Solids | | 83.9 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130545-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|--------------------|--------|-----------|--------------------|-------|--------|
| 460-130545-6 | GW-1-170329 | | | | | |
| Naphthalene | | 2.4 | J | 11 | ug/L | 8270D |
| Phenanthrene | | 0.97 | J | 11 | ug/L | 8270D |
| Aluminum | | 48400 | | 40.0 | ug/L | 6020A |
| Antimony | | 2.0 | | 2.0 | ug/L | 6020A |
| Arsenic | | 7.7 | | 2.0 | ug/L | 6020A |
| Barium | | 773 | | 4.0 | ug/L | 6020A |
| Beryllium | | 5.6 | | 0.80 | ug/L | 6020A |
| Calcium | | 115000 | | 200 | ug/L | 6020A |
| Chromium | | 117 | | 4.0 | ug/L | 6020A |
| Cobalt | | 63.9 | | 4.0 | ug/L | 6020A |
| Copper | | 201 | | 4.0 | ug/L | 6020A |
| Iron | | 108000 | | 120 | ug/L | 6020A |
| Lead | | 345 | | 1.2 | ug/L | 6020A |
| Magnesium | | 31200 | | 200 | ug/L | 6020A |
| Manganese | | 2760 | | 8.0 | ug/L | 6020A |
| Nickel | | 107 | | 4.0 | ug/L | 6020A |
| Potassium | | 27600 | | 200 | ug/L | 6020A |
| Selenium | | 8.6 | J | 10.0 | ug/L | 6020A |
| Sodium | | 48100 | | 200 | ug/L | 6020A |
| Thallium | | 1.7 | | 0.80 | ug/L | 6020A |
| Vanadium | | 165 | | 4.0 | ug/L | 6020A |
| Zinc | | 332 | | 16.0 | ug/L | 6020A |
| Mercury | | 1.7 | | 0.20 | ug/L | 7470A |
| <i>Dissolved</i> | | | | | | |
| Aluminum | | 46.0 | | 40.0 | ug/L | 6020A |
| Antimony | | 0.87 | J | 2.0 | ug/L | 6020A |
| Barium | | 51.7 | | 4.0 | ug/L | 6020A |
| Calcium | | 122000 | | 200 | ug/L | 6020A |
| Copper | | 2.3 | J | 4.0 | ug/L | 6020A |
| Iron | | 78.4 | J | 120 | ug/L | 6020A |
| Lead | | 0.79 | J | 1.2 | ug/L | 6020A |
| Magnesium | | 15900 | | 200 | ug/L | 6020A |
| Manganese | | 378 | | 8.0 | ug/L | 6020A |
| Nickel | | 1.5 | J | 4.0 | ug/L | 6020A |
| Potassium | | 9570 | | 200 | ug/L | 6020A |
| Selenium | | 7.2 | J | 10.0 | ug/L | 6020A |
| Sodium | | 51500 | | 200 | ug/L | 6020A |

METHOD SUMMARY

Client: AKRF Inc

Job Number: 460-130545-1

| Description | Lab Location | Method | Preparation Method |
|--|--------------|--------------|--------------------|
| Matrix: Solid | | | |
| Volatile Organic Compounds by GC/MS | TAL EDI | SW846 8260C | |
| Closed System Purge and Trap | TAL EDI | | SW846 5035 |
| Semivolatile Organic Compounds (GC/MS) | TAL EDI | SW846 8270D | |
| Microwave Extraction | TAL EDI | | SW846 3546 |
| Organochlorine Pesticides (GC) | TAL EDI | SW846 8081B | |
| Microwave Extraction | TAL EDI | | SW846 3546 |
| Polychlorinated Biphenyls (PCBs) by Gas Chromatography | TAL EDI | SW846 8082A | |
| Microwave Extraction | TAL EDI | | SW846 3546 |
| Metals (ICP) | TAL EDI | SW846 6010C | |
| Preparation, Metals | TAL EDI | | SW846 3050B |
| Mercury (CVAA) | TAL EDI | SW846 7471B | |
| Preparation, Mercury | TAL EDI | | SW846 7471B |
| Percent Moisture | TAL EDI | EPA Moisture | |
| Matrix: Water | | | |
| Volatile Organic Compounds by GC/MS | TAL EDI | SW846 8260C | |
| Purge and Trap | TAL EDI | | SW846 5030C |
| Semivolatile Organic Compounds (GC/MS) | TAL EDI | SW846 8270D | |
| Liquid-Liquid Extraction (Separatory Funnel) | TAL EDI | | SW846 3510C |
| Organochlorine Pesticides (GC) | TAL EDI | SW846 8081B | |
| Liquid-Liquid Extraction (Separatory Funnel) | TAL EDI | | SW846 3510C |
| Polychlorinated Biphenyls (PCBs) by Gas Chromatography | TAL EDI | SW846 8082A | |
| Liquid-Liquid Extraction (Separatory Funnel) | TAL EDI | | SW846 3510C |
| Metals (ICP/MS) | TAL EDI | SW846 6020A | |
| Preparation, Total Metals | TAL EDI | | SW846 3010A |
| Metals (ICP/MS) | TAL EDI | SW846 6020A | |
| Preparation, Total Metals | TAL EDI | | SW846 3010A |
| Sample Filtration, Field | | | FIELD_FLTRD |
| Mercury (CVAA) | TAL EDI | SW846 7470A | |
| Preparation, Mercury | TAL EDI | | SW846 7470A |
| Mercury (CVAA) | TAL EDI | SW846 7470A | |
| Preparation, Mercury | TAL EDI | | SW846 7470A |
| Sample Filtration, Field | | | FIELD_FLTRD |

Lab References:

TAL EDI = TestAmerica Edison

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: AKRF Inc

Job Number: 460-130545-1

| Method | Analyst | Analyst ID |
|---------------|------------------------------|-------------------|
| SW846 8260C | Boykin, Kenneth | KLB |
| SW846 8260C | Nimer, Diaa | DAN |
| SW846 8270D | Crocco, Michael | MMC |
| SW846 8081B | Kapoor, Sita | SAK |
| SW846 8081B | Patel, Jignesh | JHP |
| SW846 8082A | Patel, Jignesh | JHP |
| SW846 6010C | Chang, Churn Der | CDC |
| SW846 6010C | Huang, Yixin | YZH |
| SW846 6020A | Dave, Virendra | VAD |
| SW846 6020A | Patel, Purva H | PHP |
| SW846 7470A | Sheikh, Razia B | RBS |
| SW846 7471B | Staib, Thomas | TJS |
| EPA Moisture | Villadarez, Gerson Timothy S | GTSV |

SAMPLE SUMMARY

Client: AKRF Inc

Job Number: 460-130545-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|----------------------|-------------------------|----------------------|------------------------------|-------------------------------|
| 460-130545-1 | SB-6(0-1)-170329 | Solid | 03/29/2017 0845 | 03/29/2017 1840 |
| 460-130545-2 | SB-6(18-19)-170329 | Solid | 03/29/2017 0900 | 03/29/2017 1840 |
| 460-130545-4 | SB-1(1-2)-170329 | Solid | 03/29/2017 1025 | 03/29/2017 1840 |
| 460-130545-5 | SB-1(17-18)-170329 | Solid | 03/29/2017 1145 | 03/29/2017 1840 |
| 460-130545-6 | GW-1-170329 | Water | 03/29/2017 1330 | 03/29/2017 1840 |

SAMPLE RESULTS

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(0-1)-170329

Lab Sample ID: 460-130545-1

Date Sampled: 03/29/2017 0845

Client Matrix: Solid

% Moisture: 16.3

Date Received: 03/29/2017 1840

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427729 | Instrument ID: CVOAMS9 |
| Prep Method: 5035 | Prep Batch: 460-427077 | Lab File ID: K65933.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.59 g |
| Analysis Date: 04/02/2017 2248 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 0658 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|-----|
| 1,1,1-Trichloroethane | | 1.1 | U | 0.41 | 1.1 |
| 1,1,2,2-Tetrachloroethane | | 1.1 | U | 0.18 | 1.1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 1.1 | U | 0.47 | 1.1 |
| 1,1,2-Trichloroethane | | 1.1 | U | 0.30 | 1.1 |
| 1,1-Dichloroethane | | 1.1 | U | 0.36 | 1.1 |
| 1,1-Dichloroethene | | 1.1 | U | 0.44 | 1.1 |
| 1,2,3-Trichlorobenzene | | 1.1 | U | 0.12 | 1.1 |
| 1,2,4-Trichlorobenzene | | 1.1 | U | 0.34 | 1.1 |
| 1,2-Dibromo-3-Chloropropane | | 1.1 | U | 0.50 | 1.1 |
| 1,2-Dichlorobenzene | | 1.1 | U | 0.15 | 1.1 |
| 1,2-Dichloroethane | | 1.1 | U | 0.12 | 1.1 |
| 1,2-Dichloropropane | | 1.1 | U | 0.18 | 1.1 |
| 1,3-Dichlorobenzene | | 1.1 | U | 0.13 | 1.1 |
| 1,4-Dichlorobenzene | | 1.1 | U | 0.14 | 1.1 |
| 1,4-Dioxane | | 21 | U | 6.8 | 21 |
| 2-Butanone (MEK) | | 5.3 | U | 0.82 | 5.3 |
| 2-Hexanone | | 5.3 | U | 1.0 | 5.3 |
| 4-Methyl-2-pentanone (MIBK) | | 5.3 | U | 2.4 | 5.3 |
| Acetone | | 5.3 | U | 1.1 | 5.3 |
| Benzene | | 1.1 | U | 0.21 | 1.1 |
| Bromoform | | 1.1 | U | 0.14 | 1.1 |
| Bromomethane | | 1.1 | U | 0.34 | 1.1 |
| Carbon disulfide | | 1.1 | U | 0.46 | 1.1 |
| Carbon tetrachloride | | 1.1 | U | 0.46 | 1.1 |
| Chlorobenzene | | 1.1 | U | 0.15 | 1.1 |
| Chlorobromomethane | | 1.1 | U | 0.18 | 1.1 |
| Chlorodibromomethane | | 1.1 | U | 0.16 | 1.1 |
| Chloroethane | | 1.1 | U | 0.37 | 1.1 |
| Chloroform | | 1.1 | U | 0.22 | 1.1 |
| Chloromethane | | 1.1 | U | 0.41 | 1.1 |
| cis-1,2-Dichloroethene | | 1.1 | U | 0.23 | 1.1 |
| cis-1,3-Dichloropropene | | 1.1 | U | 0.16 | 1.1 |
| Cyclohexane | | 1.1 | U | 0.49 | 1.1 |
| Dichlorobromomethane | | 1.1 | U | 0.41 | 1.1 |
| Dichlorodifluoromethane | | 1.1 | U | 0.34 | 1.1 |
| Ethylbenzene | | 1.1 | U | 0.19 | 1.1 |
| Ethylene Dibromide | | 1.1 | U | 0.13 | 1.1 |
| Isopropylbenzene | | 1.1 | U | 0.18 | 1.1 |
| Methyl acetate | | 5.3 | U | 0.96 | 5.3 |
| Methyl tert-butyl ether | | 1.1 | U | 0.18 | 1.1 |
| Methylcyclohexane | | 1.1 | U | 0.53 | 1.1 |
| Methylene Chloride | | 1.1 | U | 0.34 | 1.1 |
| m-Xylene & p-Xylene | | 1.1 | U | 0.12 | 1.1 |
| o-Xylene | | 1.1 | U | 0.17 | 1.1 |
| Styrene | | 1.1 | U | 0.16 | 1.1 |
| Tetrachloroethene | | 1.1 | U | 0.30 | 1.1 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(18-19)-170329

Lab Sample ID: 460-130545-2

Date Sampled: 03/29/2017 0900

Client Matrix: Solid

% Moisture: 13.0

Date Received: 03/29/2017 1840

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427729 | Instrument ID: CVOAMS9 |
| Prep Method: 5035 | Prep Batch: 460-427077 | Lab File ID: K65934.D |
| Dilution: 1.0 | | Initial Weight/Volume: 6.10 g |
| Analysis Date: 04/02/2017 2312 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 0659 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|------|
| 1,1,1-Trichloroethane | | 0.94 | U | 0.36 | 0.94 |
| 1,1,2,2-Tetrachloroethane | | 0.94 | U | 0.16 | 0.94 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 0.94 | U | 0.41 | 0.94 |
| 1,1,2-Trichloroethane | | 0.94 | U | 0.26 | 0.94 |
| 1,1-Dichloroethane | | 0.94 | U | 0.32 | 0.94 |
| 1,1-Dichloroethene | | 0.94 | U | 0.39 | 0.94 |
| 1,2,3-Trichlorobenzene | | 0.94 | U | 0.10 | 0.94 |
| 1,2,4-Trichlorobenzene | | 0.94 | U | 0.30 | 0.94 |
| 1,2-Dibromo-3-Chloropropane | | 0.94 | U | 0.44 | 0.94 |
| 1,2-Dichlorobenzene | | 0.94 | U | 0.13 | 0.94 |
| 1,2-Dichloroethane | | 0.94 | U | 0.10 | 0.94 |
| 1,2-Dichloropropane | | 0.94 | U | 0.16 | 0.94 |
| 1,3-Dichlorobenzene | | 0.94 | U | 0.11 | 0.94 |
| 1,4-Dichlorobenzene | | 0.94 | U | 0.12 | 0.94 |
| 1,4-Dioxane | | 19 | U | 6.0 | 19 |
| 2-Butanone (MEK) | | 4.7 | U | 0.73 | 4.7 |
| 2-Hexanone | | 4.7 | U | 0.89 | 4.7 |
| 4-Methyl-2-pentanone (MIBK) | | 4.7 | U | 2.1 | 4.7 |
| Acetone | | 11 | B | 1.0 | 4.7 |
| Benzene | | 0.94 | U | 0.19 | 0.94 |
| Bromoform | | 0.94 | U | 0.12 | 0.94 |
| Bromomethane | | 0.94 | U | 0.30 | 0.94 |
| Carbon disulfide | | 0.94 | U | 0.41 | 0.94 |
| Carbon tetrachloride | | 0.94 | U | 0.41 | 0.94 |
| Chlorobenzene | | 0.94 | U | 0.13 | 0.94 |
| Chlorobromomethane | | 0.94 | U | 0.16 | 0.94 |
| Chlorodibromomethane | | 0.94 | U | 0.14 | 0.94 |
| Chloroethane | | 0.94 | U | 0.33 | 0.94 |
| Chloroform | | 0.94 | U | 0.20 | 0.94 |
| Chloromethane | | 0.94 | U | 0.36 | 0.94 |
| cis-1,2-Dichloroethene | | 0.94 | U | 0.21 | 0.94 |
| cis-1,3-Dichloropropene | | 0.94 | U | 0.14 | 0.94 |
| Cyclohexane | | 0.94 | U | 0.43 | 0.94 |
| Dichlorobromomethane | | 0.94 | U | 0.36 | 0.94 |
| Dichlorodifluoromethane | | 0.94 | U | 0.30 | 0.94 |
| Ethylbenzene | | 0.94 | U | 0.17 | 0.94 |
| Ethylene Dibromide | | 0.94 | U | 0.11 | 0.94 |
| Isopropylbenzene | | 0.94 | U | 0.16 | 0.94 |
| Methyl acetate | | 4.7 | U | 0.85 | 4.7 |
| Methyl tert-butyl ether | | 0.94 | U | 0.16 | 0.94 |
| Methylcyclohexane | | 0.94 | U | 0.47 | 0.94 |
| Methylene Chloride | | 0.94 | U | 0.30 | 0.94 |
| m-Xylene & p-Xylene | | 0.94 | U | 0.10 | 0.94 |
| o-Xylene | | 0.94 | U | 0.15 | 0.94 |
| Styrene | | 0.94 | U | 0.14 | 0.94 |
| Tetrachloroethene | | 0.94 | U | 0.26 | 0.94 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(18-19)-170329

Lab Sample ID: 460-130545-2

Date Sampled: 03/29/2017 0900

Client Matrix: Solid

% Moisture: 13.0

Date Received: 03/29/2017 1840

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427729 | Instrument ID: CVOAMS9 |
| Prep Method: 5035 | Prep Batch: 460-427077 | Lab File ID: K65934.D |
| Dilution: 1.0 | | Initial Weight/Volume: 6.10 g |
| Analysis Date: 04/02/2017 2312 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 0659 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-------|------|
| Toluene | | 0.94 | U | 0.18 | 0.94 |
| trans-1,2-Dichloroethene | | 0.94 | U | 0.37 | 0.94 |
| trans-1,3-Dichloropropene | | 0.94 | U | 0.094 | 0.94 |
| Trichloroethene | | 0.94 | U | 0.24 | 0.94 |
| Trichlorofluoromethane | | 0.94 | U | 0.32 | 0.94 |
| Vinyl chloride | | 0.94 | U | 0.37 | 0.94 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 104 | | 78 - 135 |
| 4-Bromofluorobenzene | 115 | | 67 - 126 |
| Dibromofluoromethane (Surr) | 116 | | 61 - 149 |
| Toluene-d8 (Surr) | 100 | | 73 - 121 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(1-2)-170329

Lab Sample ID: 460-130545-4

Date Sampled: 03/29/2017 1025

Client Matrix: Solid

% Moisture: 16.2

Date Received: 03/29/2017 1840

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427729 | Instrument ID: CVOAMS9 |
| Prep Method: 5035 | Prep Batch: 460-427077 | Lab File ID: K65935.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.40 g |
| Analysis Date: 04/02/2017 2337 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 0700 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|-----|
| 1,1,1-Trichloroethane | | 1.1 | U | 0.42 | 1.1 |
| 1,1,2,2-Tetrachloroethane | | 1.1 | U | 0.19 | 1.1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 1.1 | U | 0.49 | 1.1 |
| 1,1,2-Trichloroethane | | 1.1 | U | 0.31 | 1.1 |
| 1,1-Dichloroethane | | 1.1 | U | 0.38 | 1.1 |
| 1,1-Dichloroethene | | 1.1 | U | 0.45 | 1.1 |
| 1,2,3-Trichlorobenzene | | 1.1 | U | 0.12 | 1.1 |
| 1,2,4-Trichlorobenzene | | 1.1 | U | 0.35 | 1.1 |
| 1,2-Dibromo-3-Chloropropane | | 1.1 | U | 0.52 | 1.1 |
| 1,2-Dichlorobenzene | | 1.1 | U | 0.15 | 1.1 |
| 1,2-Dichloroethane | | 1.1 | U | 0.12 | 1.1 |
| 1,2-Dichloropropane | | 1.1 | U | 0.19 | 1.1 |
| 1,3-Dichlorobenzene | | 1.1 | U | 0.13 | 1.1 |
| 1,4-Dichlorobenzene | | 1.1 | U | 0.14 | 1.1 |
| 1,4-Dioxane | | 22 | U | 7.1 | 22 |
| 2-Butanone (MEK) | | 5.5 | U | 0.85 | 5.5 |
| 2-Hexanone | | 5.5 | U | 1.0 | 5.5 |
| 4-Methyl-2-pentanone (MIBK) | | 5.5 | U | 2.5 | 5.5 |
| Acetone | | 5.5 | U | 1.2 | 5.5 |
| Benzene | | 1.1 | U | 0.22 | 1.1 |
| Bromoform | | 1.1 | U | 0.14 | 1.1 |
| Bromomethane | | 1.1 | U | 0.35 | 1.1 |
| Carbon disulfide | | 1.1 | U | 0.48 | 1.1 |
| Carbon tetrachloride | | 1.1 | U | 0.48 | 1.1 |
| Chlorobenzene | | 1.1 | U | 0.15 | 1.1 |
| Chlorobromomethane | | 1.1 | U | 0.19 | 1.1 |
| Chlorodibromomethane | | 1.1 | U | 0.17 | 1.1 |
| Chloroethane | | 1.1 | U | 0.39 | 1.1 |
| Chloroform | | 1.1 | U | 0.23 | 1.1 |
| Chloromethane | | 1.1 | U | 0.42 | 1.1 |
| cis-1,2-Dichloroethene | | 1.1 | U | 0.24 | 1.1 |
| cis-1,3-Dichloropropene | | 1.1 | U | 0.17 | 1.1 |
| Cyclohexane | | 1.1 | U | 0.51 | 1.1 |
| Dichlorobromomethane | | 1.1 | U | 0.42 | 1.1 |
| Dichlorodifluoromethane | | 1.1 | U | 0.35 | 1.1 |
| Ethylbenzene | | 1.1 | U | 0.20 | 1.1 |
| Ethylene Dibromide | | 1.1 | U | 0.13 | 1.1 |
| Isopropylbenzene | | 1.1 | U | 0.19 | 1.1 |
| Methyl acetate | | 5.5 | U | 0.99 | 5.5 |
| Methyl tert-butyl ether | | 1.1 | U | 0.19 | 1.1 |
| Methylcyclohexane | | 1.1 | U | 0.55 | 1.1 |
| Methylene Chloride | | 1.1 | U | 0.35 | 1.1 |
| m-Xylene & p-Xylene | | 1.1 | U | 0.12 | 1.1 |
| o-Xylene | | 1.1 | U | 0.18 | 1.1 |
| Styrene | | 1.1 | U | 0.17 | 1.1 |
| Tetrachloroethene | | 1.1 | U | 0.31 | 1.1 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(1-2)-170329

Lab Sample ID: 460-130545-4

Date Sampled: 03/29/2017 1025

Client Matrix: Solid

% Moisture: 16.2

Date Received: 03/29/2017 1840

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C Analysis Batch: 460-427729 Instrument ID: CVOAMS9
Prep Method: 5035 Prep Batch: 460-427077 Lab File ID: K65935.D
Dilution: 1.0 Initial Weight/Volume: 5.40 g
Analysis Date: 04/02/2017 2337 Final Weight/Volume: 5 mL
Prep Date: 03/30/2017 0700

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|------|-----|
| Toluene | | 1.1 | U | 0.21 | 1.1 |
| trans-1,2-Dichloroethene | | 1.1 | U | 0.43 | 1.1 |
| trans-1,3-Dichloropropene | | 1.1 | U | 0.11 | 1.1 |
| Trichloroethene | | 1.1 | U | 0.29 | 1.1 |
| Trichlorofluoromethane | | 1.1 | U | 0.38 | 1.1 |
| Vinyl chloride | | 1.1 | U | 0.43 | 1.1 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 104 | | 78 - 135 |
| 4-Bromofluorobenzene | 113 | | 67 - 126 |
| Dibromofluoromethane (Surr) | 115 | | 61 - 149 |
| Toluene-d8 (Surr) | 99 | | 73 - 121 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(17-18)-170329

Lab Sample ID: 460-130545-5

Date Sampled: 03/29/2017 1145

Client Matrix: Solid

% Moisture: 16.1

Date Received: 03/29/2017 1840

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427729 | Instrument ID: CVOAMS9 |
| Prep Method: 5035 | Prep Batch: 460-427077 | Lab File ID: K65936.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.86 g |
| Analysis Date: 04/03/2017 0001 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 0701 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|-----|
| 1,1,1-Trichloroethane | | 1.0 | U | 0.39 | 1.0 |
| 1,1,2,2-Tetrachloroethane | | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 1.0 | U | 0.45 | 1.0 |
| 1,1,2-Trichloroethane | | 1.0 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | | 1.0 | U | 0.35 | 1.0 |
| 1,1-Dichloroethene | | 1.0 | U | 0.42 | 1.0 |
| 1,2,3-Trichlorobenzene | | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | | 1.0 | U | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | | 1.0 | U | 0.48 | 1.0 |
| 1,2-Dichlorobenzene | | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | | 20 | U | 6.5 | 20 |
| 2-Butanone (MEK) | | 5.1 | U | 0.78 | 5.1 |
| 2-Hexanone | | 5.1 | U | 0.96 | 5.1 |
| 4-Methyl-2-pentanone (MIBK) | | 5.1 | U | 2.3 | 5.1 |
| Acetone | | 5.1 | U | 1.1 | 5.1 |
| Benzene | | 1.0 | U | 0.20 | 1.0 |
| Bromoform | | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | | 1.0 | U | 0.33 | 1.0 |
| Carbon disulfide | | 1.0 | U | 0.44 | 1.0 |
| Carbon tetrachloride | | 1.0 | U | 0.44 | 1.0 |
| Chlorobenzene | | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | | 1.0 | U | 0.36 | 1.0 |
| Chloroform | | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | | 1.0 | U | 0.39 | 1.0 |
| cis-1,2-Dichloroethene | | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | | 1.0 | U | 0.47 | 1.0 |
| Dichlorobromomethane | | 1.0 | U | 0.39 | 1.0 |
| Dichlorodifluoromethane | | 1.0 | U | 0.33 | 1.0 |
| Ethylbenzene | | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | | 5.1 | U | 0.92 | 5.1 |
| Methyl tert-butyl ether | | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | | 1.0 | U | 0.51 | 1.0 |
| Methylene Chloride | | 1.0 | U | 0.33 | 1.0 |
| m-Xylene & p-Xylene | | 1.0 | U | 0.11 | 1.0 |
| o-Xylene | | 1.0 | U | 0.16 | 1.0 |
| Styrene | | 1.0 | U | 0.15 | 1.0 |
| Tetrachloroethene | | 1.0 | U | 0.28 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(17-18)-170329

Lab Sample ID: 460-130545-5

Date Sampled: 03/29/2017 1145

Client Matrix: Solid

% Moisture: 16.1

Date Received: 03/29/2017 1840

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427729 | Instrument ID: CVOAMS9 |
| Prep Method: 5035 | Prep Batch: 460-427077 | Lab File ID: K65936.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.86 g |
| Analysis Date: 04/03/2017 0001 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 0701 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|------|-----|
| Toluene | | 1.0 | U | 0.19 | 1.0 |
| trans-1,2-Dichloroethene | | 1.0 | U | 0.40 | 1.0 |
| trans-1,3-Dichloropropene | | 1.0 | U | 0.10 | 1.0 |
| Trichloroethene | | 1.0 | U | 0.26 | 1.0 |
| Trichlorofluoromethane | | 1.0 | U | 0.35 | 1.0 |
| Vinyl chloride | | 1.0 | U | 0.40 | 1.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 103 | | 78 - 135 |
| 4-Bromofluorobenzene | 113 | | 67 - 126 |
| Dibromofluoromethane (Surr) | 114 | | 61 - 149 |
| Toluene-d8 (Surr) | 100 | | 73 - 121 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: GW-1-170329

Lab Sample ID: 460-130545-6

Date Sampled: 03/29/2017 1330

Client Matrix: Water

Date Received: 03/29/2017 1840

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-428037 | Instrument ID: CVOAMS8 |
| Prep Method: 5030C | Prep Batch: N/A | Lab File ID: J53356.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/04/2017 1513 | | Final Weight/Volume: 5 mL |
| Prep Date: 04/04/2017 1513 | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------------------------------------|---------------|-----------|-------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.19 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.080 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.24 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.34 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.35 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.27 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.23 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.22 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.25 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.18 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dioxane | 50 | U * | 8.7 | 50 |
| 2-Butanone (MEK) | 5.0 | U | 2.2 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.72 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 0.63 | 5.0 |
| Acetone | 5.0 | U | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.090 | 1.0 |
| Bromoform | 1.0 | U | 0.18 | 1.0 |
| Bromomethane | 1.0 | U | 0.18 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.22 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.33 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.24 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.30 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.22 | 1.0 |
| Chloroethane | 1.0 | U | 0.37 | 1.0 |
| Chloroform | 1.0 | U | 0.22 | 1.0 |
| Chloromethane | 1.0 | U | 0.22 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.26 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.16 | 1.0 |
| Cyclohexane | 1.0 | U | 0.26 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.15 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.14 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.30 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.19 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.32 | 1.0 |
| Methyl acetate | 5.0 | U | 0.58 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.13 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.22 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.21 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.28 | 1.0 |
| o-Xylene | 1.0 | U | 0.32 | 1.0 |
| Styrene | 1.0 | U | 0.17 | 1.0 |
| Tetrachloroethene | 1.0 | U | 0.12 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: GW-1-170329

Lab Sample ID: 460-130545-6

Date Sampled: 03/29/2017 1330

Client Matrix: Water

Date Received: 03/29/2017 1840

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-428037 | Instrument ID: CVOAMS8 |
| Prep Method: 5030C | Prep Batch: N/A | Lab File ID: J53356.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/04/2017 1513 | | Final Weight/Volume: 5 mL |
| Prep Date: 04/04/2017 1513 | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------------------------|---------------|-----------|-------|-----|
| Toluene | 1.0 | U | 0.25 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.18 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.19 | 1.0 |
| Trichloroethene | 1.0 | U | 0.22 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.15 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.060 | 1.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 109 | | 74 - 132 |
| 4-Bromofluorobenzene | 101 | | 77 - 124 |
| Dibromofluoromethane (Surr) | 102 | | 72 - 131 |
| Toluene-d8 (Surr) | 98 | | 80 - 120 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(0-1)-170329

Lab Sample ID: 460-130545-1

Date Sampled: 03/29/2017 0845

Client Matrix: Solid

% Moisture: 16.3

Date Received: 03/29/2017 1840

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427556 | Instrument ID: CBNAMS5 |
| Prep Method: 3546 | Prep Batch: 460-427381 | Lab File ID: x24232.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0150 g |
| Analysis Date: 04/01/2017 1001 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 390 | U | 34 | 390 |
| 1,2,4,5-Tetrachlorobenzene | | 390 | U | 29 | 390 |
| 2,2'-oxybis[1-chloropropane] | | 390 | U | 16 | 390 |
| 2,3,4,6-Tetrachlorophenol | | 390 | U | 37 | 390 |
| 2,4,5-Trichlorophenol | | 390 | U | 39 | 390 |
| 2,4,6-Trichlorophenol | | 160 | U | 11 | 160 |
| 2,4-Dichlorophenol | | 160 | U | 9.3 | 160 |
| 2,4-Dimethylphenol | | 390 | U | 87 | 390 |
| 2,4-Dinitrophenol | | 320 | U | 300 | 320 |
| 2,4-Dinitrotoluene | | 80 | U | 16 | 80 |
| 2,6-Dinitrotoluene | | 80 | U | 21 | 80 |
| 2-Chloronaphthalene | | 390 | U | 8.9 | 390 |
| 2-Chlorophenol | | 390 | U | 10 | 390 |
| 2-Methylnaphthalene | | 12 | J | 8.7 | 390 |
| 2-Methylphenol | | 390 | U | 17 | 390 |
| 2-Nitroaniline | | 390 | U | 13 | 390 |
| 2-Nitrophenol | | 390 | U | 13 | 390 |
| 3,3'-Dichlorobenzidine | | 160 | U | 44 | 160 |
| 3-Nitroaniline | | 390 | U | 12 | 390 |
| 4,6-Dinitro-2-methylphenol | | 320 | U | 110 | 320 |
| 4-Bromophenyl phenyl ether | | 390 | U | 12 | 390 |
| 4-Chloro-3-methylphenol | | 390 | U | 17 | 390 |
| 4-Chloroaniline | | 390 | U | 10 | 390 |
| 4-Chlorophenyl phenyl ether | | 390 | U | 12 | 390 |
| 4-Methylphenol | | 390 | U | 11 | 390 |
| 4-Nitroaniline | | 390 | U | 15 | 390 |
| 4-Nitrophenol | | 800 | U | 190 | 800 |
| Acenaphthene | | 17 | J | 9.5 | 390 |
| Acenaphthylene | | 390 | U | 10 | 390 |
| Acetophenone | | 390 | U | 8.6 | 390 |
| Anthracene | | 390 | U | 37 | 390 |
| Atrazine | | 160 | U | 18 | 160 |
| Benzaldehyde | | 390 | U | 30 | 390 |
| Benzo[a]anthracene | | 180 | | 33 | 39 |
| Benzo[a]pyrene | | 160 | | 12 | 39 |
| Benzo[b]fluoranthene | | 240 | | 15 | 39 |
| Benzo[g,h,i]perylene | | 150 | J | 23 | 390 |
| Benzo[k]fluoranthene | | 100 | | 17 | 39 |
| Bis(2-chloroethoxy)methane | | 390 | U | 12 | 390 |
| Bis(2-chloroethyl)ether | | 39 | U | 9.3 | 39 |
| Bis(2-ethylhexyl) phthalate | | 390 | U | 15 | 390 |
| Butyl benzyl phthalate | | 390 | U | 12 | 390 |
| Caprolactam | | 390 | U | 28 | 390 |
| Carbazole | | 15 | J | 9.8 | 390 |
| Chrysene | | 230 | J | 11 | 390 |
| Dibenz(a,h)anthracene | | 39 | U | 21 | 39 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(0-1)-170329

Lab Sample ID: 460-130545-1

Date Sampled: 03/29/2017 0845

Client Matrix: Solid

% Moisture: 16.3

Date Received: 03/29/2017 1840

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427556 | Instrument ID: CBNAMS5 |
| Prep Method: 3546 | Prep Batch: 460-427381 | Lab File ID: x24232.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0150 g |
| Analysis Date: 04/01/2017 1001 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 12 | J | 12 | 390 |
| Diethyl phthalate | | 390 | U | 11 | 390 |
| Dimethyl phthalate | | 390 | U | 11 | 390 |
| Di-n-butyl phthalate | | 29 | J | 12 | 390 |
| Di-n-octyl phthalate | | 390 | U | 20 | 390 |
| Fluoranthene | | 360 | J | 12 | 390 |
| Fluorene | | 11 | J | 8.6 | 390 |
| Hexachlorobenzene | | 39 | U | 16 | 39 |
| Hexachlorobutadiene | | 80 | U | 11 | 80 |
| Hexachlorocyclopentadiene | | 390 | U | 25 | 390 |
| Hexachloroethane | | 39 | U | 14 | 39 |
| Indeno[1,2,3-cd]pyrene | | 220 | | 26 | 39 |
| Isophorone | | 44 | J | 8.5 | 160 |
| Naphthalene | | 27 | J | 10 | 390 |
| Nitrobenzene | | 39 | U | 12 | 39 |
| N-Nitrosodi-n-propylamine | | 39 | U | 13 | 39 |
| N-Nitrosodiphenylamine | | 390 | U | 36 | 390 |
| Pentachlorophenol | | 320 | U | 48 | 320 |
| Phenanthrene | | 230 | J | 10 | 390 |
| Phenol | | 390 | U | 13 | 390 |
| Pyrene | | 330 | J | 18 | 390 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 48 | | 10 - 103 |
| 2-Fluorobiphenyl | 79 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 58 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 72 | | 37 - 94 |
| Phenol-d5 (Surr) | 56 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 69 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(18-19)-170329

Lab Sample ID: 460-130545-2

Date Sampled: 03/29/2017 0900

Client Matrix: Solid

% Moisture: 13.0

Date Received: 03/29/2017 1840

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427556 | Instrument ID: CBNAMS5 |
| Prep Method: 3546 | Prep Batch: 460-427381 | Lab File ID: x24225.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0214 g |
| Analysis Date: 04/01/2017 0714 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 380 | U | 32 | 380 |
| 1,2,4,5-Tetrachlorobenzene | | 380 | U | 28 | 380 |
| 2,2'-oxybis[1-chloropropane] | | 380 | U | 16 | 380 |
| 2,3,4,6-Tetrachlorophenol | | 380 | U | 36 | 380 |
| 2,4,5-Trichlorophenol | | 380 | U | 38 | 380 |
| 2,4,6-Trichlorophenol | | 150 | U | 11 | 150 |
| 2,4-Dichlorophenol | | 150 | U | 9.0 | 150 |
| 2,4-Dimethylphenol | | 380 | U | 83 | 380 |
| 2,4-Dinitrophenol | | 310 | U | 290 | 310 |
| 2,4-Dinitrotoluene | | 77 | U | 15 | 77 |
| 2,6-Dinitrotoluene | | 77 | U | 20 | 77 |
| 2-Chloronaphthalene | | 380 | U | 8.6 | 380 |
| 2-Chlorophenol | | 380 | U | 9.6 | 380 |
| 2-Methylnaphthalene | | 380 | U | 8.4 | 380 |
| 2-Methylphenol | | 380 | U | 17 | 380 |
| 2-Nitroaniline | | 380 | U | 13 | 380 |
| 2-Nitrophenol | | 380 | U | 13 | 380 |
| 3,3'-Dichlorobenzidine | | 150 | U | 42 | 150 |
| 3-Nitroaniline | | 380 | U | 11 | 380 |
| 4,6-Dinitro-2-methylphenol | | 310 | U | 100 | 310 |
| 4-Bromophenyl phenyl ether | | 380 | U | 12 | 380 |
| 4-Chloro-3-methylphenol | | 380 | U | 16 | 380 |
| 4-Chloroaniline | | 380 | U | 9.8 | 380 |
| 4-Chlorophenyl phenyl ether | | 380 | U | 11 | 380 |
| 4-Methylphenol | | 380 | U | 10 | 380 |
| 4-Nitroaniline | | 380 | U | 14 | 380 |
| 4-Nitrophenol | | 770 | U | 180 | 770 |
| Acenaphthene | | 380 | U | 9.2 | 380 |
| Acenaphthylene | | 380 | U | 9.8 | 380 |
| Acetophenone | | 380 | U | 8.3 | 380 |
| Anthracene | | 380 | U | 36 | 380 |
| Atrazine | | 150 | U | 17 | 150 |
| Benzaldehyde | | 380 | U | 29 | 380 |
| Benzo[a]anthracene | | 38 | U | 32 | 38 |
| Benzo[a]pyrene | | 38 | U | 11 | 38 |
| Benzo[b]fluoranthene | | 38 | U | 15 | 38 |
| Benzo[g,h,i]perylene | | 380 | U | 22 | 380 |
| Benzo[k]fluoranthene | | 38 | U | 17 | 38 |
| Bis(2-chloroethoxy)methane | | 380 | U | 12 | 380 |
| Bis(2-chloroethyl)ether | | 38 | U | 9.0 | 38 |
| Bis(2-ethylhexyl) phthalate | | 380 | U | 15 | 380 |
| Butyl benzyl phthalate | | 380 | U | 12 | 380 |
| Caprolactam | | 380 | U | 27 | 380 |
| Carbazole | | 380 | U | 9.4 | 380 |
| Chrysene | | 380 | U | 10 | 380 |
| Dibenz(a,h)anthracene | | 38 | U | 20 | 38 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(18-19)-170329

Lab Sample ID: 460-130545-2

Date Sampled: 03/29/2017 0900

Client Matrix: Solid

% Moisture: 13.0

Date Received: 03/29/2017 1840

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427556 | Instrument ID: CBNAMS5 |
| Prep Method: 3546 | Prep Batch: 460-427381 | Lab File ID: x24225.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0214 g |
| Analysis Date: 04/01/2017 0714 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 380 | U | 11 | 380 |
| Diethyl phthalate | | 380 | U | 11 | 380 |
| Dimethyl phthalate | | 380 | U | 11 | 380 |
| Di-n-butyl phthalate | | 380 | U | 11 | 380 |
| Di-n-octyl phthalate | | 380 | U | 19 | 380 |
| Fluoranthene | | 380 | U | 11 | 380 |
| Fluorene | | 380 | U | 8.3 | 380 |
| Hexachlorobenzene | | 38 | U | 15 | 38 |
| Hexachlorobutadiene | | 77 | U | 11 | 77 |
| Hexachlorocyclopentadiene | | 380 | U | 24 | 380 |
| Hexachloroethane | | 38 | U | 14 | 38 |
| Indeno[1,2,3-cd]pyrene | | 38 | U | 25 | 38 |
| Isophorone | | 150 | U | 8.1 | 150 |
| Naphthalene | | 380 | U | 9.6 | 380 |
| Nitrobenzene | | 38 | U | 12 | 38 |
| N-Nitrosodi-n-propylamine | | 38 | U | 13 | 38 |
| N-Nitrosodiphenylamine | | 380 | U | 34 | 380 |
| Pentachlorophenol | | 310 | U | 46 | 310 |
| Phenanthrene | | 380 | U | 10 | 380 |
| Phenol | | 380 | U | 12 | 380 |
| Pyrene | | 380 | U | 17 | 380 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 64 | | 10 - 103 |
| 2-Fluorobiphenyl | 82 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 68 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 81 | | 37 - 94 |
| Phenol-d5 (Surr) | 70 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 99 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(1-2)-170329

Lab Sample ID: 460-130545-4

Date Sampled: 03/29/2017 1025

Client Matrix: Solid

% Moisture: 16.2

Date Received: 03/29/2017 1840

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427556 | Instrument ID: CBNAMS5 |
| Prep Method: 3546 | Prep Batch: 460-427381 | Lab File ID: x24235.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0145 g |
| Analysis Date: 04/01/2017 1112 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 84 | J | 34 | 390 |
| 1,2,4,5-Tetrachlorobenzene | | 390 | U | 29 | 390 |
| 2,2'-oxybis[1-chloropropane] | | 390 | U | 16 | 390 |
| 2,3,4,6-Tetrachlorophenol | | 390 | U | 37 | 390 |
| 2,4,5-Trichlorophenol | | 390 | U | 39 | 390 |
| 2,4,6-Trichlorophenol | | 160 | U | 11 | 160 |
| 2,4-Dichlorophenol | | 160 | U | 9.3 | 160 |
| 2,4-Dimethylphenol | | 390 | U | 87 | 390 |
| 2,4-Dinitrophenol | | 320 | U | 300 | 320 |
| 2,4-Dinitrotoluene | | 80 | U | 16 | 80 |
| 2,6-Dinitrotoluene | | 80 | U | 21 | 80 |
| 2-Chloronaphthalene | | 390 | U | 8.9 | 390 |
| 2-Chlorophenol | | 390 | U | 10 | 390 |
| 2-Methylnaphthalene | | 320 | J | 8.7 | 390 |
| 2-Methylphenol | | 390 | U | 17 | 390 |
| 2-Nitroaniline | | 390 | U | 13 | 390 |
| 2-Nitrophenol | | 390 | U | 13 | 390 |
| 3,3'-Dichlorobenzidine | | 160 | U | 44 | 160 |
| 3-Nitroaniline | | 390 | U | 12 | 390 |
| 4,6-Dinitro-2-methylphenol | | 320 | U | 110 | 320 |
| 4-Bromophenyl phenyl ether | | 390 | U | 12 | 390 |
| 4-Chloro-3-methylphenol | | 390 | U | 17 | 390 |
| 4-Chloroaniline | | 390 | U | 10 | 390 |
| 4-Chlorophenyl phenyl ether | | 390 | U | 12 | 390 |
| 4-Methylphenol | | 390 | U | 11 | 390 |
| 4-Nitroaniline | | 390 | U | 15 | 390 |
| 4-Nitrophenol | | 800 | U | 190 | 800 |
| Acenaphthene | | 530 | | 9.5 | 390 |
| Acenaphthylene | | 36 | J | 10 | 390 |
| Acetophenone | | 390 | U | 8.6 | 390 |
| Anthracene | | 650 | | 37 | 390 |
| Atrazine | | 160 | U | 18 | 160 |
| Benzaldehyde | | 390 | U | 30 | 390 |
| Benzo[a]anthracene | | 1300 | | 33 | 39 |
| Benzo[a]pyrene | | 1300 | | 12 | 39 |
| Benzo[b]fluoranthene | | 1600 | | 15 | 39 |
| Benzo[g,h,i]perylene | | 1100 | | 23 | 390 |
| Benzo[k]fluoranthene | | 560 | | 17 | 39 |
| Bis(2-chloroethoxy)methane | | 390 | U | 12 | 390 |
| Bis(2-chloroethyl)ether | | 39 | U | 9.3 | 39 |
| Bis(2-ethylhexyl) phthalate | | 99 | J | 15 | 390 |
| Butyl benzyl phthalate | | 390 | U | 12 | 390 |
| Caprolactam | | 390 | U | 28 | 390 |
| Carbazole | | 220 | J | 9.8 | 390 |
| Chrysene | | 1500 | | 11 | 390 |
| Dibenz(a,h)anthracene | | 360 | | 21 | 39 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(1-2)-170329

Lab Sample ID: 460-130545-4

Date Sampled: 03/29/2017 1025

Client Matrix: Solid

% Moisture: 16.2

Date Received: 03/29/2017 1840

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427556 | Instrument ID: CBNAMS5 |
| Prep Method: 3546 | Prep Batch: 460-427381 | Lab File ID: x24235.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0145 g |
| Analysis Date: 04/01/2017 1112 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 380 | J | 12 | 390 |
| Diethyl phthalate | | 390 | U | 11 | 390 |
| Dimethyl phthalate | | 390 | U | 11 | 390 |
| Di-n-butyl phthalate | | 110 | J | 12 | 390 |
| Di-n-octyl phthalate | | 390 | U | 20 | 390 |
| Fluoranthene | | 2800 | | 12 | 390 |
| Fluorene | | 420 | | 8.6 | 390 |
| Hexachlorobenzene | | 39 | U | 16 | 39 |
| Hexachlorobutadiene | | 80 | U | 11 | 80 |
| Hexachlorocyclopentadiene | | 390 | U | 25 | 390 |
| Hexachloroethane | | 39 | U | 14 | 39 |
| Indeno[1,2,3-cd]pyrene | | 1400 | | 26 | 39 |
| Isophorone | | 160 | U | 8.5 | 160 |
| Naphthalene | | 580 | | 10 | 390 |
| Nitrobenzene | | 39 | U | 12 | 39 |
| N-Nitrosodi-n-propylamine | | 39 | U | 13 | 39 |
| N-Nitrosodiphenylamine | | 390 | U | 36 | 390 |
| Pentachlorophenol | | 320 | U | 48 | 320 |
| Phenanthrene | | 3300 | | 10 | 390 |
| Phenol | | 390 | U | 13 | 390 |
| Pyrene | | 2600 | | 18 | 390 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 54 | | 10 - 103 |
| 2-Fluorobiphenyl | 89 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 64 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 79 | | 37 - 94 |
| Phenol-d5 (Surr) | 65 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 81 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(17-18)-170329

Lab Sample ID: 460-130545-5

Date Sampled: 03/29/2017 1145

Client Matrix: Solid

% Moisture: 16.1

Date Received: 03/29/2017 1840

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427556 | Instrument ID: CBNAMS5 |
| Prep Method: 3546 | Prep Batch: 460-427381 | Lab File ID: x24228.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0123 g |
| Analysis Date: 04/01/2017 0826 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 390 | U | 34 | 390 |
| 1,2,4,5-Tetrachlorobenzene | | 390 | U | 29 | 390 |
| 2,2'-oxybis[1-chloropropane] | | 390 | U | 16 | 390 |
| 2,3,4,6-Tetrachlorophenol | | 390 | U | 37 | 390 |
| 2,4,5-Trichlorophenol | | 390 | U | 39 | 390 |
| 2,4,6-Trichlorophenol | | 160 | U | 11 | 160 |
| 2,4-Dichlorophenol | | 160 | U | 9.3 | 160 |
| 2,4-Dimethylphenol | | 390 | U | 87 | 390 |
| 2,4-Dinitrophenol | | 320 | U | 300 | 320 |
| 2,4-Dinitrotoluene | | 80 | U | 16 | 80 |
| 2,6-Dinitrotoluene | | 80 | U | 21 | 80 |
| 2-Chloronaphthalene | | 390 | U | 8.9 | 390 |
| 2-Chlorophenol | | 390 | U | 10 | 390 |
| 2-Methylnaphthalene | | 390 | U | 8.7 | 390 |
| 2-Methylphenol | | 390 | U | 17 | 390 |
| 2-Nitroaniline | | 390 | U | 13 | 390 |
| 2-Nitrophenol | | 390 | U | 13 | 390 |
| 3,3'-Dichlorobenzidine | | 160 | U | 44 | 160 |
| 3-Nitroaniline | | 390 | U | 12 | 390 |
| 4,6-Dinitro-2-methylphenol | | 320 | U | 110 | 320 |
| 4-Bromophenyl phenyl ether | | 390 | U | 12 | 390 |
| 4-Chloro-3-methylphenol | | 390 | U | 17 | 390 |
| 4-Chloroaniline | | 390 | U | 10 | 390 |
| 4-Chlorophenyl phenyl ether | | 390 | U | 12 | 390 |
| 4-Methylphenol | | 390 | U | 11 | 390 |
| 4-Nitroaniline | | 390 | U | 15 | 390 |
| 4-Nitrophenol | | 800 | U | 190 | 800 |
| Acenaphthene | | 390 | U | 9.5 | 390 |
| Acenaphthylene | | 390 | U | 10 | 390 |
| Acetophenone | | 390 | U | 8.6 | 390 |
| Anthracene | | 390 | U | 37 | 390 |
| Atrazine | | 160 | U | 18 | 160 |
| Benzaldehyde | | 390 | U | 30 | 390 |
| Benzo[a]anthracene | | 39 | U | 33 | 39 |
| Benzo[a]pyrene | | 17 | J | 12 | 39 |
| Benzo[b]fluoranthene | | 24 | J | 15 | 39 |
| Benzo[g,h,i]perylene | | 390 | U | 23 | 390 |
| Benzo[k]fluoranthene | | 39 | U | 17 | 39 |
| Bis(2-chloroethoxy)methane | | 390 | U | 12 | 390 |
| Bis(2-chloroethyl)ether | | 39 | U | 9.3 | 39 |
| Bis(2-ethylhexyl) phthalate | | 390 | U | 15 | 390 |
| Butyl benzyl phthalate | | 390 | U | 12 | 390 |
| Caprolactam | | 390 | U | 28 | 390 |
| Carbazole | | 390 | U | 9.8 | 390 |
| Chrysene | | 21 | J | 11 | 390 |
| Dibenz(a,h)anthracene | | 39 | U | 20 | 39 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(17-18)-170329

Lab Sample ID: 460-130545-5

Date Sampled: 03/29/2017 1145

Client Matrix: Solid

% Moisture: 16.1

Date Received: 03/29/2017 1840

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427556 | Instrument ID: CBNAMS5 |
| Prep Method: 3546 | Prep Batch: 460-427381 | Lab File ID: x24228.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0123 g |
| Analysis Date: 04/01/2017 0826 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 390 | U | 12 | 390 |
| Diethyl phthalate | | 390 | U | 11 | 390 |
| Dimethyl phthalate | | 390 | U | 11 | 390 |
| Di-n-butyl phthalate | | 15 | J | 12 | 390 |
| Di-n-octyl phthalate | | 390 | U | 20 | 390 |
| Fluoranthene | | 37 | J | 12 | 390 |
| Fluorene | | 390 | U | 8.6 | 390 |
| Hexachlorobenzene | | 39 | U | 16 | 39 |
| Hexachlorobutadiene | | 80 | U | 11 | 80 |
| Hexachlorocyclopentadiene | | 390 | U | 25 | 390 |
| Hexachloroethane | | 39 | U | 14 | 39 |
| Indeno[1,2,3-cd]pyrene | | 39 | U | 26 | 39 |
| Isophorone | | 160 | U | 8.5 | 160 |
| Naphthalene | | 390 | U | 10 | 390 |
| Nitrobenzene | | 39 | U | 12 | 39 |
| N-Nitrosodi-n-propylamine | | 39 | U | 13 | 39 |
| N-Nitrosodiphenylamine | | 390 | U | 36 | 390 |
| Pentachlorophenol | | 320 | U | 48 | 320 |
| Phenanthrene | | 37 | J | 10 | 390 |
| Phenol | | 390 | U | 13 | 390 |
| Pyrene | | 36 | J | 18 | 390 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 60 | | 10 - 103 |
| 2-Fluorobiphenyl | 83 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 68 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 80 | | 37 - 94 |
| Phenol-d5 (Surr) | 70 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 98 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: GW-1-170329

Lab Sample ID: 460-130545-6

Date Sampled: 03/29/2017 1330

Client Matrix: Water

Date Received: 03/29/2017 1840

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427561 | Instrument ID: CBNAMS4 |
| Prep Method: 3510C | Prep Batch: 460-427170 | Lab File ID: U334039.D |
| Dilution: 1.0 | | Initial Weight/Volume: 237 mL |
| Analysis Date: 04/01/2017 1135 | | Final Weight/Volume: 2 mL |
| Prep Date: 03/30/2017 1252 | | Injection Volume: 5 uL |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|------------------------------|---------------|-----------|-------|-----|
| 1,1'-Biphenyl | 11 | U | 0.66 | 11 |
| 1,2,4,5-Tetrachlorobenzene | 11 | U | 0.45 | 11 |
| 2,2'-oxybis[1-chloropropane] | 11 | U | 0.98 | 11 |
| 2,3,4,6-Tetrachlorophenol | 11 | U | 0.73 | 11 |
| 2,4,5-Trichlorophenol | 11 | U | 0.52 | 11 |
| 2,4,6-Trichlorophenol | 11 | U | 0.56 | 11 |
| 2,4-Dichlorophenol | 11 | U | 0.66 | 11 |
| 2,4-Dimethylphenol | 11 | U | 0.96 | 11 |
| 2,4-Dinitrophenol | 21 | U | 2.5 | 21 |
| 2,4-Dinitrotoluene | 2.1 | U | 1.1 | 2.1 |
| 2,6-Dinitrotoluene | 2.1 | U | 0.93 | 2.1 |
| 2-Chloronaphthalene | 11 | U | 0.64 | 11 |
| 2-Chlorophenol | 11 | U | 0.78 | 11 |
| 2-Methylnaphthalene | 11 | U | 0.93 | 11 |
| 2-Methylphenol | 11 | U | 1.4 | 11 |
| 2-Nitroaniline | 11 | U | 0.69 | 11 |
| 2-Nitrophenol | 11 | U | 0.62 | 11 |
| 3,3'-Dichlorobenzidine | 11 | U | 1.1 | 11 |
| 3-Nitroaniline | 11 | U | 0.86 | 11 |
| 4,6-Dinitro-2-methylphenol | 21 | U | 2.1 | 21 |
| 4-Bromophenyl phenyl ether | 11 | U | 1.1 | 11 |
| 4-Chloro-3-methylphenol | 11 | U | 0.80 | 11 |
| 4-Chloroaniline | 11 | U | 0.77 | 11 |
| 4-Chlorophenyl phenyl ether | 11 | U | 1.0 | 11 |
| 4-Methylphenol | 11 | U | 0.92 | 11 |
| 4-Nitroaniline | 11 | U | 0.51 | 11 |
| 4-Nitrophenol | 21 | U | 4.9 | 21 |
| Acenaphthene | 11 | U | 0.93 | 11 |
| Acenaphthylene | 11 | U | 0.69 | 11 |
| Acetophenone | 11 | U | 1.1 | 11 |
| Anthracene | 11 | U | 0.60 | 11 |
| Atrazine | 2.1 | U | 0.81 | 2.1 |
| Benzaldehyde | 11 | U | 0.91 | 11 |
| Benzo[a]anthracene | 1.1 | U | 0.58 | 1.1 |
| Benzo[a]pyrene | 1.1 | U | 0.17 | 1.1 |
| Benzo[b]fluoranthene | 1.1 | U | 0.46 | 1.1 |
| Benzo[g,h,i]perylene | 11 | U | 0.79 | 11 |
| Benzo[k]fluoranthene | 1.1 | U | 0.19 | 1.1 |
| Bis(2-chloroethoxy)methane | 11 | U | 0.73 | 11 |
| Bis(2-chloroethyl)ether | 1.1 | U | 0.13 | 1.1 |
| Bis(2-ethylhexyl) phthalate | 2.1 | U | 0.76 | 2.1 |
| Butyl benzyl phthalate | 11 | U | 0.63 | 11 |
| Caprolactam | 11 | U | 1.1 | 11 |
| Carbazole | 11 | U | 0.90 | 11 |
| Chrysene | 2.1 | U | 0.71 | 2.1 |
| Dibenz(a,h)anthracene | 1.1 | U | 0.095 | 1.1 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: GW-1-170329

Lab Sample ID: 460-130545-6

Date Sampled: 03/29/2017 1330

Client Matrix: Water

Date Received: 03/29/2017 1840

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427561 | Instrument ID: CBNAMS4 |
| Prep Method: 3510C | Prep Batch: 460-427170 | Lab File ID: U334039.D |
| Dilution: 1.0 | | Initial Weight/Volume: 237 mL |
| Analysis Date: 04/01/2017 1135 | | Final Weight/Volume: 2 mL |
| Prep Date: 03/30/2017 1252 | | Injection Volume: 5 uL |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------------------------|---------------|-----------|-------------------|-----|
| Dibenzofuran | 11 | U | 0.90 | 11 |
| Diethyl phthalate | 11 | U | 1.1 | 11 |
| Dimethyl phthalate | 11 | U | 1.0 | 11 |
| Di-n-butyl phthalate | 11 | U | 0.86 | 11 |
| Di-n-octyl phthalate | 11 | U | 0.73 | 11 |
| Fluoranthene | 11 | U | 0.76 | 11 |
| Fluorene | 11 | U | 0.84 | 11 |
| Hexachlorobenzene | 1.1 | U | 0.50 | 1.1 |
| Hexachlorobutadiene | 1.1 | U | 0.80 | 1.1 |
| Hexachlorocyclopentadiene | 11 | U | 0.64 | 11 |
| Hexachloroethane | 1.1 | U | 0.095 | 1.1 |
| Indeno[1,2,3-cd]pyrene | 1.1 | U | 0.22 | 1.1 |
| Isophorone | 11 | U | 0.71 | 11 |
| Naphthalene | 2.4 | J | 0.84 | 11 |
| Nitrobenzene | 1.1 | U | 0.52 | 1.1 |
| N-Nitrosodi-n-propylamine | 1.1 | U | 0.88 | 1.1 |
| N-Nitrosodiphenylamine | 11 | U | 0.78 | 11 |
| Pentachlorophenol | 21 | U | 2.3 | 21 |
| Phenanthrene | 0.97 | J | 0.69 | 11 |
| Phenol | 11 | U | 0.43 | 11 |
| Pyrene | 11 | U | 0.88 | 11 |
| | | | | |
| Surrogate | %Rec | Qualifier | Acceptance Limits | |
| 2,4,6-Tribromophenol (Surr) | 88 | | 26 - 139 | |
| 2-Fluorobiphenyl | 86 | | 45 - 107 | |
| 2-Fluorophenol (Surr) | 39 | | 25 - 58 | |
| Nitrobenzene-d5 (Surr) | 87 | | 51 - 108 | |
| Phenol-d5 (Surr) | 22 | | 14 - 39 | |
| Terphenyl-d14 (Surr) | 78 | | 40 - 148 | |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(0-1)-170329

Lab Sample ID: 460-130545-1

Date Sampled: 03/29/2017 0845

Client Matrix: Solid

% Moisture: 16.3

Date Received: 03/29/2017 1840

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427712 | Instrument ID: CPESTGC4 |
| Prep Method: 3546 | Prep Batch: 460-427407 | Initial Weight/Volume: 15.0278 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 04/02/2017 1327 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 1118 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 26 | | 1.0 | 8.0 |
| 4,4'-DDE | | 47 | | 1.2 | 8.0 |
| 4,4'-DDT | | 82 | | 0.82 | 8.0 |
| Aldrin | | 8.0 | U | 0.97 | 8.0 |
| alpha-BHC | | 2.4 | U | 0.73 | 2.4 |
| beta-BHC | | 2.4 | U | 0.77 | 2.4 |
| Chlordane (technical) | | 80 | U | 35 | 80 |
| delta-BHC | | 2.4 | U | 0.87 | 2.4 |
| Dieldrin | | 19 | | 1.0 | 2.4 |
| Endosulfan I | | 8.0 | U | 1.1 | 8.0 |
| Endosulfan II | | 13 | | 1.3 | 8.0 |
| Endosulfan sulfate | | 22 | | 0.93 | 8.0 |
| Endrin | | 8.0 | U | 1.0 | 8.0 |
| Endrin aldehyde | | 8.0 | U | 0.99 | 8.0 |
| Endrin ketone | | 8.0 | U | 1.1 | 8.0 |
| gamma-BHC (Lindane) | | 2.4 | U | 0.72 | 2.4 |
| Heptachlor | | 8.0 | U | 1.0 | 8.0 |
| Heptachlor epoxide | | 8.0 | U | 1.6 | 8.0 |
| Methoxychlor | | 8.0 | U | 1.7 | 8.0 |
| Toxaphene | | 80 | U | 23 | 80 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 130 | | 50 - 150 |
| Tetrachloro-m-xylene | 100 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(0-1)-170329

Lab Sample ID: 460-130545-1

Date Sampled: 03/29/2017 0845

Client Matrix: Solid

% Moisture: 16.3

Date Received: 03/29/2017 1840

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-427712

Instrument ID: CPESTGC4

Prep Method: 3546

Prep Batch: 460-427407

Initial Weight/Volume: 15.0278 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/02/2017 1327

Injection Volume: 1 uL

Prep Date: 03/31/2017 1118

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 122 | | 50 - 150 |
| Tetrachloro-m-xylene | 97 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(18-19)-170329

Lab Sample ID: 460-130545-2

Date Sampled: 03/29/2017 0900

Client Matrix: Solid

% Moisture: 13.0

Date Received: 03/29/2017 1840

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427712 | Instrument ID: CPESTGC4 |
| Prep Method: 3546 | Prep Batch: 460-427407 | Initial Weight/Volume: 15.0289 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 04/02/2017 1339 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 1118 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 7.7 | U | 1.0 | 7.7 |
| 4,4'-DDE | | 7.7 | U | 1.1 | 7.7 |
| 4,4'-DDT | | 7.7 | U | 0.79 | 7.7 |
| Aldrin | | 7.7 | U | 0.93 | 7.7 |
| alpha-BHC | | 2.3 | U | 0.70 | 2.3 |
| beta-BHC | | 2.3 | U | 0.75 | 2.3 |
| Chlordane (technical) | | 77 | U | 34 | 77 |
| delta-BHC | | 2.3 | U | 0.84 | 2.3 |
| Dieldrin | | 2.3 | U | 1.0 | 2.3 |
| Endosulfan I | | 7.7 | U | 1.1 | 7.7 |
| Endosulfan II | | 7.7 | U | 1.2 | 7.7 |
| Endosulfan sulfate | | 7.7 | U | 0.89 | 7.7 |
| Endrin | | 7.7 | U | 0.98 | 7.7 |
| Endrin aldehyde | | 7.7 | U | 0.95 | 7.7 |
| Endrin ketone | | 7.7 | U | 1.1 | 7.7 |
| gamma-BHC (Lindane) | | 2.3 | U | 0.69 | 2.3 |
| Heptachlor | | 7.7 | U | 0.99 | 7.7 |
| Heptachlor epoxide | | 7.7 | U | 1.5 | 7.7 |
| Methoxychlor | | 7.7 | U | 1.6 | 7.7 |
| Toxaphene | | 77 | U | 22 | 77 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 116 | | 50 - 150 |
| Tetrachloro-m-xylene | 97 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(18-19)-170329

Lab Sample ID: 460-130545-2

Date Sampled: 03/29/2017 0900

Client Matrix: Solid

% Moisture: 13.0

Date Received: 03/29/2017 1840

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-427712

Instrument ID: CPESTGC4

Prep Method: 3546

Prep Batch: 460-427407

Initial Weight/Volume: 15.0289 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/02/2017 1339

Injection Volume: 1 uL

Prep Date: 03/31/2017 1118

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 115 | | 50 - 150 |
| Tetrachloro-m-xylene | 95 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(1-2)-170329

Lab Sample ID: 460-130545-4

Date Sampled: 03/29/2017 1025

Client Matrix: Solid

% Moisture: 16.2

Date Received: 03/29/2017 1840

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427712 | Instrument ID: CPESTGC4 |
| Prep Method: 3546 | Prep Batch: 460-427407 | Initial Weight/Volume: 15.0275 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 04/02/2017 1351 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 1118 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 14 | | 1.0 | 8.0 |
| 4,4'-DDE | | 190 | | 1.2 | 8.0 |
| 4,4'-DDT | | 130 | | 0.82 | 8.0 |
| Aldrin | | 8.0 | U | 0.97 | 8.0 |
| alpha-BHC | | 2.4 | U | 0.73 | 2.4 |
| beta-BHC | | 2.4 | U | 0.77 | 2.4 |
| Chlordane (technical) | | 80 | U | 35 | 80 |
| delta-BHC | | 2.4 | U | 0.87 | 2.4 |
| Dieldrin | | 9.2 | | 1.0 | 2.4 |
| Endosulfan I | | 8.0 | U | 1.1 | 8.0 |
| Endosulfan II | | 8.0 | U | 1.3 | 8.0 |
| Endosulfan sulfate | | 8.0 | U | 0.93 | 8.0 |
| Endrin | | 8.0 | U | 1.0 | 8.0 |
| Endrin aldehyde | | 8.0 | U | 0.99 | 8.0 |
| Endrin ketone | | 8.0 | U | 1.1 | 8.0 |
| gamma-BHC (Lindane) | | 2.4 | U | 0.71 | 2.4 |
| Heptachlor | | 8.0 | U | 1.0 | 8.0 |
| Heptachlor epoxide | | 8.0 | U | 1.6 | 8.0 |
| Methoxychlor | | 8.0 | U | 1.7 | 8.0 |
| Toxaphene | | 80 | U | 23 | 80 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 140 | | 50 - 150 |
| Tetrachloro-m-xylene | 101 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(1-2)-170329

Lab Sample ID: 460-130545-4

Date Sampled: 03/29/2017 1025

Client Matrix: Solid

% Moisture: 16.2

Date Received: 03/29/2017 1840

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-427712

Instrument ID: CPESTGC4

Prep Method: 3546

Prep Batch: 460-427407

Initial Weight/Volume: 15.0275 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/02/2017 1351

Injection Volume: 1 uL

Prep Date: 03/31/2017 1118

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 120 | | 50 - 150 |
| Tetrachloro-m-xylene | 97 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(17-18)-170329

Lab Sample ID: 460-130545-5

Date Sampled: 03/29/2017 1145

Client Matrix: Solid

% Moisture: 16.1

Date Received: 03/29/2017 1840

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427712 | Instrument ID: CPESTGC4 |
| Prep Method: 3546 | Prep Batch: 460-427407 | Initial Weight/Volume: 15.0232 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 04/02/2017 1404 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 1118 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 8.0 | U | 1.0 | 8.0 |
| 4,4'-DDE | | 8.4 | | 1.2 | 8.0 |
| 4,4'-DDT | | 11 | | 0.82 | 8.0 |
| Aldrin | | 8.0 | U | 0.96 | 8.0 |
| alpha-BHC | | 2.4 | U | 0.73 | 2.4 |
| beta-BHC | | 2.4 | U | 0.77 | 2.4 |
| Chlordane (technical) | | 80 | U | 35 | 80 |
| delta-BHC | | 2.4 | U | 0.87 | 2.4 |
| Dieldrin | | 2.4 | U | 1.0 | 2.4 |
| Endosulfan I | | 8.0 | U | 1.1 | 8.0 |
| Endosulfan II | | 8.0 | U | 1.3 | 8.0 |
| Endosulfan sulfate | | 8.0 | U | 0.93 | 8.0 |
| Endrin | | 8.0 | U | 1.0 | 8.0 |
| Endrin aldehyde | | 8.0 | U | 0.99 | 8.0 |
| Endrin ketone | | 8.0 | U | 1.1 | 8.0 |
| gamma-BHC (Lindane) | | 2.4 | U | 0.71 | 2.4 |
| Heptachlor | | 8.0 | U | 1.0 | 8.0 |
| Heptachlor epoxide | | 8.0 | U | 1.6 | 8.0 |
| Methoxychlor | | 8.0 | U | 1.7 | 8.0 |
| Toxaphene | | 80 | U | 23 | 80 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 131 | | 50 - 150 |
| Tetrachloro-m-xylene | 112 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(17-18)-170329

Lab Sample ID: 460-130545-5

Date Sampled: 03/29/2017 1145

Client Matrix: Solid

% Moisture: 16.1

Date Received: 03/29/2017 1840

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-427712

Instrument ID: CPESTGC4

Prep Method: 3546

Prep Batch: 460-427407

Initial Weight/Volume: 15.0232 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/02/2017 1404

Injection Volume: 1 uL

Prep Date: 03/31/2017 1118

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 127 | | 50 - 150 |
| Tetrachloro-m-xylene | 104 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: GW-1-170329

Lab Sample ID: 460-130545-6

Date Sampled: 03/29/2017 1330

Client Matrix: Water

Date Received: 03/29/2017 1840

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427383 | Instrument ID: CPESTGC5 |
| Prep Method: 3510C | Prep Batch: 460-427111 | Initial Weight/Volume: 245 mL |
| Dilution: 1.0 | | Final Weight/Volume: 1 mL |
| Analysis Date: 03/31/2017 1342 | | Injection Volume: 1 uL |
| Prep Date: 03/30/2017 0924 | | Result Type: PRIMARY |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|------------------------|---------------|-----------|-------------------|-------|
| 4,4'-DDD | 0.020 | U | 0.0051 | 0.020 |
| 4,4'-DDE | 0.020 | U | 0.0041 | 0.020 |
| 4,4'-DDT | 0.020 | U | 0.0041 | 0.020 |
| Aldrin | 0.020 | U | 0.0041 | 0.020 |
| alpha-BHC | 0.020 | U | 0.0061 | 0.020 |
| beta-BHC | 0.020 | U | 0.0051 | 0.020 |
| Chlordane (technical) | 0.51 | U | 0.13 | 0.51 |
| delta-BHC | 0.020 | U | 0.0061 | 0.020 |
| Dieldrin | 0.020 | U | 0.0041 | 0.020 |
| Endosulfan I | 0.020 | U | 0.0051 | 0.020 |
| Endosulfan II | 0.020 | U | 0.0041 | 0.020 |
| Endosulfan sulfate | 0.020 | U | 0.0051 | 0.020 |
| Endrin | 0.020 | U | 0.0041 | 0.020 |
| Endrin aldehyde | 0.020 | U | 0.0041 | 0.020 |
| Endrin ketone | 0.020 | U | 0.0041 | 0.020 |
| gamma-BHC (Lindane) | 0.020 | U | 0.0041 | 0.020 |
| Heptachlor | 0.020 | U | 0.0041 | 0.020 |
| Heptachlor epoxide | 0.020 | U | 0.0041 | 0.020 |
| Methoxychlor | 0.020 | U | 0.0041 | 0.020 |
| Toxaphene | 0.51 | U | 0.061 | 0.51 |
| Surrogate | %Rec | Qualifier | Acceptance Limits | |
| DCB Decachlorobiphenyl | 129 | | 10 - 150 | |
| Tetrachloro-m-xylene | 103 | | 16 - 150 | |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: GW-1-170329

Lab Sample ID: 460-130545-6

Date Sampled: 03/29/2017 1330

Client Matrix: Water

Date Received: 03/29/2017 1840

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427383 | Instrument ID: CPESTGC5 |
| Prep Method: 3510C | Prep Batch: 460-427111 | Initial Weight/Volume: 245 mL |
| Dilution: 1.0 | | Final Weight/Volume: 1 mL |
| Analysis Date: 03/31/2017 1342 | | Injection Volume: 1 uL |
| Prep Date: 03/30/2017 0924 | | Result Type: SECONDARY |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 124 | | 10 - 150 |
| Tetrachloro-m-xylene | 100 | | 16 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(0-1)-170329

Lab Sample ID: 460-130545-1

Date Sampled: 03/29/2017 0845

Client Matrix: Solid

% Moisture: 16.3

Date Received: 03/29/2017 1840

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-427683 | Instrument ID: CPESTGC7 |
| Prep Method: 3546 | Prep Batch: 460-427405 | Initial Weight/Volume: 15.0278 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 04/02/2017 1555 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 1110 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 80 | U | 11 | 80 |
| Aroclor 1221 | | 80 | U | 11 | 80 |
| Aroclor 1232 | | 80 | U | 11 | 80 |
| Aroclor 1242 | | 80 | U | 11 | 80 |
| Aroclor 1248 | | 80 | U | 11 | 80 |
| Aroclor 1254 | | 80 | U | 11 | 80 |
| Aroclor 1260 | | 80 | U | 11 | 80 |
| Aroclor 1268 | | 80 | U | 11 | 80 |
| Aroclor-1262 | | 80 | U | 11 | 80 |
| Polychlorinated biphenyls, Total | | 80 | U | 11 | 80 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 147 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(0-1)-170329

Lab Sample ID: 460-130545-1

Date Sampled: 03/29/2017 0845

Client Matrix: Solid

% Moisture: 16.3

Date Received: 03/29/2017 1840

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-427683

Instrument ID: CPESTGC7

Prep Method: 3546

Prep Batch: 460-427405

Initial Weight/Volume: 15.0278 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/02/2017 1555

Injection Volume: 1 uL

Prep Date: 03/31/2017 1110

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 146 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(18-19)-170329

Lab Sample ID: 460-130545-2

Date Sampled: 03/29/2017 0900

Client Matrix: Solid

% Moisture: 13.0

Date Received: 03/29/2017 1840

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------|
| Analysis Method: | 8082A | Analysis Batch: | 460-427683 | Instrument ID: | CPESTGC7 |
| Prep Method: | 3546 | Prep Batch: | 460-427405 | Initial Weight/Volume: | 15.0289 g |
| Dilution: | 1.0 | | | Final Weight/Volume: | 10 mL |
| Analysis Date: | 04/02/2017 1618 | | | Injection Volume: | 1 uL |
| Prep Date: | 03/31/2017 1110 | | | Result Type: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 77 | U | 10 | 77 |
| Aroclor 1221 | | 77 | U | 10 | 77 |
| Aroclor 1232 | | 77 | U | 10 | 77 |
| Aroclor 1242 | | 77 | U | 10 | 77 |
| Aroclor 1248 | | 77 | U | 10 | 77 |
| Aroclor 1254 | | 77 | U | 11 | 77 |
| Aroclor 1260 | | 77 | U | 11 | 77 |
| Aroclor 1268 | | 77 | U | 11 | 77 |
| Aroclor-1262 | | 77 | U | 11 | 77 |
| Polychlorinated biphenyls, Total | | 77 | U | 11 | 77 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 150 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(18-19)-170329

Lab Sample ID: 460-130545-2

Date Sampled: 03/29/2017 0900

Client Matrix: Solid

% Moisture: 13.0

Date Received: 03/29/2017 1840

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-427683

Instrument ID: CPESTGC7

Prep Method: 3546

Prep Batch: 460-427405

Initial Weight/Volume: 15.0289 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/02/2017 1618

Injection Volume: 1 uL

Prep Date: 03/31/2017 1110

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 150 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(1-2)-170329

Lab Sample ID: 460-130545-4

Date Sampled: 03/29/2017 1025

Client Matrix: Solid

% Moisture: 16.2

Date Received: 03/29/2017 1840

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------|
| Analysis Method: | 8082A | Analysis Batch: | 460-427683 | Instrument ID: | CPESTGC7 |
| Prep Method: | 3546 | Prep Batch: | 460-427405 | Initial Weight/Volume: | 15.0275 g |
| Dilution: | 1.0 | | | Final Weight/Volume: | 10 mL |
| Analysis Date: | 04/02/2017 1642 | | | Injection Volume: | 1 uL |
| Prep Date: | 03/31/2017 1110 | | | Result Type: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 80 | U | 11 | 80 |
| Aroclor 1221 | | 80 | U | 11 | 80 |
| Aroclor 1232 | | 80 | U | 11 | 80 |
| Aroclor 1242 | | 80 | U | 11 | 80 |
| Aroclor 1248 | | 80 | U | 11 | 80 |
| Aroclor 1254 | | 80 | U | 11 | 80 |
| Aroclor 1260 | | 80 | U | 11 | 80 |
| Aroclor 1268 | | 80 | U | 11 | 80 |
| Aroclor-1262 | | 80 | U | 11 | 80 |
| Polychlorinated biphenyls, Total | | 80 | U | 11 | 80 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 153 | * | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(1-2)-170329

Lab Sample ID: 460-130545-4

Date Sampled: 03/29/2017 1025

Client Matrix: Solid

% Moisture: 16.2

Date Received: 03/29/2017 1840

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-427683

Instrument ID: CPESTGC7

Prep Method: 3546

Prep Batch: 460-427405

Initial Weight/Volume: 15.0275 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/02/2017 1642

Injection Volume: 1 uL

Prep Date: 03/31/2017 1110

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 151 | * | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(17-18)-170329

Lab Sample ID: 460-130545-5

Date Sampled: 03/29/2017 1145

Client Matrix: Solid

% Moisture: 16.1

Date Received: 03/29/2017 1840

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------|
| Analysis Method: | 8082A | Analysis Batch: | 460-427683 | Instrument ID: | CPESTGC7 |
| Prep Method: | 3546 | Prep Batch: | 460-427405 | Initial Weight/Volume: | 15.0232 g |
| Dilution: | 1.0 | | | Final Weight/Volume: | 10 mL |
| Analysis Date: | 04/02/2017 1705 | | | Injection Volume: | 1 uL |
| Prep Date: | 03/31/2017 1110 | | | Result Type: | PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 80 | U | 11 | 80 |
| Aroclor 1221 | | 80 | U | 11 | 80 |
| Aroclor 1232 | | 80 | U | 11 | 80 |
| Aroclor 1242 | | 80 | U | 11 | 80 |
| Aroclor 1248 | | 80 | U | 11 | 80 |
| Aroclor 1254 | | 80 | U | 11 | 80 |
| Aroclor 1260 | | 80 | U | 11 | 80 |
| Aroclor 1268 | | 80 | U | 11 | 80 |
| Aroclor-1262 | | 80 | U | 11 | 80 |
| Polychlorinated biphenyls, Total | | 80 | U | 11 | 80 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 149 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(17-18)-170329

Lab Sample ID: 460-130545-5

Date Sampled: 03/29/2017 1145

Client Matrix: Solid

% Moisture: 16.1

Date Received: 03/29/2017 1840

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-427683

Instrument ID: CPESTGC7

Prep Method: 3546

Prep Batch: 460-427405

Initial Weight/Volume: 15.0232 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/02/2017 1705

Injection Volume: 1 uL

Prep Date: 03/31/2017 1110

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 148 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: **GW-1-170329**

Lab Sample ID: 460-130545-6

Date Sampled: 03/29/2017 1330

Client Matrix: Water

Date Received: 03/29/2017 1840

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|----------|
| Analysis Method: | 8082A | Analysis Batch: | 460-427385 | Instrument ID: | CPESTGC7 |
| Prep Method: | 3510C | Prep Batch: | 460-427110 | Initial Weight/Volume: | 250 mL |
| Dilution: | 1.0 | | | Final Weight/Volume: | 1 mL |
| Analysis Date: | 03/31/2017 1412 | | | Injection Volume: | 1 uL |
| Prep Date: | 03/30/2017 0920 | | | Result Type: | PRIMARY |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|----------------------------------|---------------|-----------|-------|------|
| Aroclor 1016 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1221 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1232 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1242 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1248 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1254 | 0.40 | U | 0.084 | 0.40 |
| Aroclor 1260 | 0.40 | U | 0.084 | 0.40 |
| Aroclor 1268 | 0.40 | U | 0.084 | 0.40 |
| Aroclor-1262 | 0.40 | U | 0.084 | 0.40 |
| Polychlorinated biphenyls, Total | 0.40 | U | 0.098 | 0.40 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 105 | | 10 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: GW-1-170329

Lab Sample ID: 460-130545-6

Date Sampled: 03/29/2017 1330

Client Matrix: Water

Date Received: 03/29/2017 1840

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------|
| Analysis Method: | 8082A | Analysis Batch: | 460-427385 | Instrument ID: | CPESTGC7 |
| Prep Method: | 3510C | Prep Batch: | 460-427110 | Initial Weight/Volume: | 250 mL |
| Dilution: | 1.0 | | | Final Weight/Volume: | 1 mL |
| Analysis Date: | 03/31/2017 1412 | | | Injection Volume: | 1 uL |
| Prep Date: | 03/30/2017 0920 | | | Result Type: | SECONDARY |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 88 | | 10 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(0-1)-170329

Lab Sample ID: 460-130545-1

Date Sampled: 03/29/2017 0845

Client Matrix: Solid

% Moisture: 16.3

Date Received: 03/29/2017 1840

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-427491

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-427296

Lab File ID: 427292D1.asc

Dilution: 4.0

Initial Weight/Volume: 1.30 g

Analysis Date: 03/31/2017 1710

Final Weight/Volume: 50 mL

Prep Date: 03/30/2017 2335

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 12400 | | 18.9 | 36.7 |
| Antimony | | 3.7 | U | 1.5 | 3.7 |
| Arsenic | | 15.6 | | 0.90 | 2.8 |
| Barium | | 93.0 | | 1.3 | 36.7 |
| Beryllium | | 0.65 | | 0.31 | 0.37 |
| Cadmium | | 0.73 | U | 0.38 | 0.73 |
| Calcium | | 1930 | | 54.4 | 919 |
| Chromium | | 20.9 | | 0.89 | 1.8 |
| Cobalt | | 7.0 | J | 1.1 | 9.2 |
| Copper | | 54.1 | | 1.2 | 4.6 |
| Iron | | 17800 | | 20.8 | 27.6 |
| Lead | | 129 | | 0.72 | 1.8 |
| Magnesium | | 2800 | | 45.8 | 919 |
| Manganese | | 266 | | 0.96 | 2.8 |
| Nickel | | 15.0 | | 1.3 | 7.3 |
| Potassium | | 1430 | | 27.8 | 919 |
| Selenium | | 3.7 | U | 1.3 | 3.7 |
| Silver | | 1.8 | U | 0.32 | 1.8 |
| Sodium | | 69.9 | J | 62.2 | 919 |
| Thallium | | 3.7 | U | 1.6 | 3.7 |
| Vanadium | | 37.3 | | 0.92 | 9.2 |
| Zinc | | 90.8 | | 1.3 | 5.5 |

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-427152

Instrument ID: LEEMAN5

Prep Method: 7471B

Prep Batch: 460-427060

Lab File ID: 427055HG1.PRN

Dilution: 1.0

Initial Weight/Volume: 0.65 g

Analysis Date: 03/30/2017 1057

Final Weight/Volume: 50 mL

Prep Date: 03/30/2017 0423

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.31 | | 0.012 | 0.019 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-6(18-19)-170329

Lab Sample ID: 460-130545-2

Date Sampled: 03/29/2017 0900

Client Matrix: Solid

% Moisture: 13.0

Date Received: 03/29/2017 1840

6010C Metals (ICP)

Analysis Method: 6010C Analysis Batch: 460-427477 Instrument ID: ICP4
Prep Method: 3050B Prep Batch: 460-427295 Lab File ID: a427295.asc
Dilution: 4.0 Initial Weight/Volume: 1.24 g
Analysis Date: 03/31/2017 1352 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 2335

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 8560 | | 19.1 | 37.1 |
| Antimony | | 3.7 | U | 1.5 | 3.7 |
| Arsenic | | 4.6 | | 0.91 | 2.8 |
| Barium | | 54.6 | | 1.3 | 37.1 |
| Beryllium | | 0.56 | | 0.31 | 0.37 |
| Cadmium | | 0.74 | U | 0.39 | 0.74 |
| Calcium | | 1550 | | 54.9 | 927 |
| Chromium | | 24.2 | | 0.90 | 1.9 |
| Cobalt | | 11.5 | | 1.1 | 9.3 |
| Copper | | 21.7 | | 1.2 | 4.6 |
| Iron | | 13200 | | 20.9 | 27.8 |
| Lead | | 8.5 | | 0.73 | 1.9 |
| Magnesium | | 2750 | | 46.3 | 927 |
| Manganese | | 180 | | 0.97 | 2.8 |
| Nickel | | 15.8 | | 1.4 | 7.4 |
| Potassium | | 1400 | | 28.1 | 927 |
| Selenium | | 3.7 | U | 1.3 | 3.7 |
| Silver | | 1.9 | U | 0.33 | 1.9 |
| Sodium | | 65.9 | J | 62.8 | 927 |
| Thallium | | 3.7 | U | 1.6 | 3.7 |
| Vanadium | | 35.4 | | 0.93 | 9.3 |
| Zinc | | 34.0 | | 1.4 | 5.6 |

7471B Mercury (CVAA)

Analysis Method: 7471B Analysis Batch: 460-427152 Instrument ID: LEEMAN5
Prep Method: 7471B Prep Batch: 460-427060 Lab File ID: 427055HG1.PRN
Dilution: 1.0 Initial Weight/Volume: 0.61 g
Analysis Date: 03/30/2017 1059 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 0423

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.019 | U | 0.012 | 0.019 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(1-2)-170329

Lab Sample ID: 460-130545-4

Date Sampled: 03/29/2017 1025

Client Matrix: Solid

% Moisture: 16.2

Date Received: 03/29/2017 1840

6010C Metals (ICP)

Analysis Method: 6010C Analysis Batch: 460-427477 Instrument ID: ICP4
Prep Method: 3050B Prep Batch: 460-427295 Lab File ID: a427295.asc
Dilution: 4.0 Initial Weight/Volume: 1.22 g
Analysis Date: 03/31/2017 1355 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 2335

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 11900 | | 20.2 | 39.1 |
| Antimony | | 3.9 | U | 1.5 | 3.9 |
| Arsenic | | 4.0 | | 0.96 | 2.9 |
| Barium | | 103 | | 1.4 | 39.1 |
| Beryllium | | 0.73 | | 0.33 | 0.39 |
| Cadmium | | 0.78 | U | 0.41 | 0.78 |
| Calcium | | 1610 | | 57.9 | 978 |
| Chromium | | 24.9 | | 0.95 | 2.0 |
| Cobalt | | 9.9 | | 1.1 | 9.8 |
| Copper | | 29.2 | | 1.3 | 4.9 |
| Iron | | 23200 | | 22.1 | 29.4 |
| Lead | | 91.5 | | 0.77 | 2.0 |
| Magnesium | | 5250 | | 48.8 | 978 |
| Manganese | | 384 | | 1.0 | 2.9 |
| Nickel | | 25.4 | | 1.4 | 7.8 |
| Potassium | | 5210 | | 29.6 | 978 |
| Selenium | | 3.9 | U | 1.4 | 3.9 |
| Silver | | 2.0 | U | 0.35 | 2.0 |
| Sodium | | 105 | J | 66.2 | 978 |
| Thallium | | 3.9 | U | 1.7 | 3.9 |
| Vanadium | | 39.9 | | 0.98 | 9.8 |
| Zinc | | 91.4 | | 1.4 | 5.9 |

7471B Mercury (CVAA)

Analysis Method: 7471B Analysis Batch: 460-427152 Instrument ID: LEEMAN5
Prep Method: 7471B Prep Batch: 460-427060 Lab File ID: 427055HG1.PRN
Dilution: 1.0 Initial Weight/Volume: 0.64 g
Analysis Date: 03/30/2017 1101 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 0423

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.40 | | 0.012 | 0.019 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: SB-1(17-18)-170329

Lab Sample ID: 460-130545-5

Date Sampled: 03/29/2017 1145

Client Matrix: Solid

% Moisture: 16.1

Date Received: 03/29/2017 1840

6010C Metals (ICP)

Analysis Method: 6010C Analysis Batch: 460-427477 Instrument ID: ICP4
Prep Method: 3050B Prep Batch: 460-427295 Lab File ID: a427295.asc
Dilution: 4.0 Initial Weight/Volume: 1.24 g
Analysis Date: 03/31/2017 1359 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 2335

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 9580 | | 19.8 | 38.5 |
| Antimony | | 3.8 | U | 1.5 | 3.8 |
| Arsenic | | 2.9 | U | 0.95 | 2.9 |
| Barium | | 77.3 | | 1.4 | 38.5 |
| Beryllium | | 1.2 | | 0.33 | 0.38 |
| Cadmium | | 0.77 | U | 0.40 | 0.77 |
| Calcium | | 2830 | | 56.9 | 962 |
| Chromium | | 25.1 | | 0.93 | 1.9 |
| Cobalt | | 15.5 | | 1.1 | 9.6 |
| Copper | | 33.9 | | 1.3 | 4.8 |
| Iron | | 34700 | | 21.7 | 28.8 |
| Lead | | 15.6 | | 0.75 | 1.9 |
| Magnesium | | 3600 | | 48.0 | 962 |
| Manganese | | 872 | | 1.0 | 2.9 |
| Nickel | | 25.1 | | 1.4 | 7.7 |
| Potassium | | 3650 | | 29.1 | 962 |
| Selenium | | 1.9 | J | 1.3 | 3.8 |
| Silver | | 0.36 | J | 0.34 | 1.9 |
| Sodium | | 120 | J | 65.1 | 962 |
| Thallium | | 3.8 | U | 1.7 | 3.8 |
| Vanadium | | 40.8 | | 0.96 | 9.6 |
| Zinc | | 72.7 | | 1.4 | 5.8 |

7471B Mercury (CVAA)

Analysis Method: 7471B Analysis Batch: 460-427152 Instrument ID: LEEMAN5
Prep Method: 7471B Prep Batch: 460-427060 Lab File ID: 427055HG1.PRN
Dilution: 1.0 Initial Weight/Volume: 0.61 g
Analysis Date: 03/30/2017 1103 Final Weight/Volume: 50 mL
Prep Date: 03/30/2017 0423

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.050 | | 0.013 | 0.020 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: GW-1-170329

Lab Sample ID: 460-130545-6

Date Sampled: 03/29/2017 1330

Client Matrix: Water

Date Received: 03/29/2017 1840

6020A Metals (ICP/MS)

Analysis Method: 6020A Analysis Batch: 460-427660 Instrument ID: ICPMS3
Prep Method: 3010A Prep Batch: 460-427354 Lab File ID: 115SMPL.d
Dilution: 2.0 Initial Weight/Volume: 50 mL
Analysis Date: 04/01/2017 1807 Final Weight/Volume: 50 mL
Prep Date: 03/31/2017 0751

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------|---------------|-----------|------|------|
| Aluminum | 48400 | | 18.2 | 40.0 |
| Antimony | 2.0 | | 0.62 | 2.0 |
| Arsenic | 7.7 | | 0.64 | 2.0 |
| Barium | 773 | | 1.2 | 4.0 |
| Beryllium | 5.6 | | 0.24 | 0.80 |
| Cadmium | 2.0 | U | 0.71 | 2.0 |
| Calcium | 115000 | | 60.5 | 200 |
| Chromium | 117 | | 1.3 | 4.0 |
| Cobalt | 63.9 | | 1.3 | 4.0 |
| Copper | 201 | | 1.4 | 4.0 |
| Iron | 108000 | | 42.4 | 120 |
| Lead | 345 | | 0.38 | 1.2 |
| Magnesium | 31200 | | 63.6 | 200 |
| Manganese | 2760 | | 2.5 | 8.0 |
| Nickel | 107 | | 1.4 | 4.0 |
| Potassium | 27600 | | 91.4 | 200 |
| Selenium | 8.6 | J | 0.73 | 10.0 |
| Silver | 2.0 | U | 1.3 | 2.0 |
| Sodium | 48100 | | 69.0 | 200 |
| Thallium | 1.7 | | 0.26 | 0.80 |
| Vanadium | 165 | | 1.9 | 4.0 |
| Zinc | 332 | | 7.0 | 16.0 |

6020A Metals (ICP/MS)-Dissolved

Analysis Method: 6020A Analysis Batch: 460-428431 Instrument ID: ICPMS2
Prep Method: 3010A Prep Batch: 460-428185 Lab File ID: 023SMPL.D
Dilution: 2.0 Initial Weight/Volume: 10 mL
Analysis Date: 04/05/2017 1555 Final Weight/Volume: 10 mL
Prep Date: 04/04/2017 2002

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------|---------------|-----------|------|------|
| Aluminum | 46.0 | | 18.2 | 40.0 |
| Antimony | 0.87 | J | 0.62 | 2.0 |
| Arsenic | 2.0 | U | 0.64 | 2.0 |
| Barium | 51.7 | | 1.2 | 4.0 |
| Beryllium | 0.80 | U | 0.24 | 0.80 |
| Cadmium | 2.0 | U | 0.71 | 2.0 |
| Calcium | 122000 | | 60.5 | 200 |
| Chromium | 4.0 | U | 1.3 | 4.0 |
| Cobalt | 4.0 | U | 1.3 | 4.0 |
| Copper | 2.3 | J | 1.4 | 4.0 |
| Iron | 78.4 | J | 42.4 | 120 |
| Lead | 0.79 | J | 0.38 | 1.2 |
| Magnesium | 15900 | | 63.6 | 200 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

Client Sample ID: GW-1-170329

Lab Sample ID: 460-130545-6

Date Sampled: 03/29/2017 1330

Client Matrix: Water

Date Received: 03/29/2017 1840

6020A Metals (ICP/MS)-Dissolved

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------|---------------|-----------|------|------|
| Manganese | 378 | | 2.5 | 8.0 |
| Nickel | 1.5 | J | 1.4 | 4.0 |
| Potassium | 9570 | | 91.4 | 200 |
| Selenium | 7.2 | J | 0.73 | 10.0 |
| Sodium | 51500 | | 69.0 | 200 |
| Thallium | 0.80 | U | 0.26 | 0.80 |
| Vanadium | 4.0 | U | 1.9 | 4.0 |
| Zinc | 16.0 | U | 7.0 | 16.0 |

Analysis Method: 6020A

Analysis Batch: 460-428498

Instrument ID: ICPMS2

Prep Method: 3010A

Prep Batch: 460-428185

Lab File ID: 049SMPL.D

Dilution: 2.0

Initial Weight/Volume: 10 mL

Analysis Date: 04/05/2017 2316

Final Weight/Volume: 10 mL

Prep Date: 04/04/2017 2002

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|-----|-----|
| Silver | 2.0 | U | 1.3 | 2.0 |

7470A Mercury (CVAA)

Analysis Method: 7470A

Analysis Batch: 460-427489

Instrument ID: LEEMAN6

Prep Method: 7470A

Prep Batch: 460-427427

Lab File ID: 427426hg1.CSV

Dilution: 1.0

Initial Weight/Volume: 30 mL

Analysis Date: 03/31/2017 1546

Final Weight/Volume: 30 mL

Prep Date: 03/31/2017 1241

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|------|------|
| Mercury | 1.7 | | 0.17 | 0.20 |

7470A Mercury (CVAA)-Dissolved

Analysis Method: 7470A

Analysis Batch: 460-427489

Instrument ID: LEEMAN6

Prep Method: 7470A

Prep Batch: 460-427431

Lab File ID: 427426hg1.CSV

Dilution: 1.0

Initial Weight/Volume: 30 mL

Analysis Date: 03/31/2017 1638

Final Weight/Volume: 30 mL

Prep Date: 03/31/2017 1252

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

General Chemistry

Client Sample ID: SB-6(0-1)-170329

Lab Sample ID: 460-130545-1

Date Sampled: 03/29/2017 0845

Client Matrix: Solid

Date Received: 03/29/2017 1840

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|------|-----|-----|--------------------|
| Percent Moisture | 16.3 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-427233 | Analysis Date: 03/30/2017 | | 1610 | | | DryWt Corrected: N |
| Percent Solids | 83.7 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-427233 | Analysis Date: 03/30/2017 | | 1610 | | | DryWt Corrected: N |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

General Chemistry

Client Sample ID: SB-6(18-19)-170329

Lab Sample ID: 460-130545-2

Date Sampled: 03/29/2017 0900

Client Matrix: Solid

Date Received: 03/29/2017 1840

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|------|-----|-----|--------------------|
| Percent Moisture | 13.0 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-427234 | Analysis Date: 03/30/2017 | | 1637 | | | DryWt Corrected: N |
| Percent Solids | 87.0 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-427234 | Analysis Date: 03/30/2017 | | 1637 | | | DryWt Corrected: N |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

General Chemistry

Client Sample ID: SB-1(1-2)-170329

Lab Sample ID: 460-130545-4

Client Matrix: Solid

Date Sampled: 03/29/2017 1025

Date Received: 03/29/2017 1840

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|-----|-----|-----|--------------------|
| Percent Moisture | 16.2 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-427234 | Analysis Date: 03/30/2017 | 1637 | | | | DryWt Corrected: N |
| Percent Solids | 83.8 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-427234 | Analysis Date: 03/30/2017 | 1637 | | | | DryWt Corrected: N |

Analytical Data

Client: AKRF Inc

Job Number: 460-130545-1

General Chemistry

Client Sample ID: SB-1(17-18)-170329

Lab Sample ID: 460-130545-5

Date Sampled: 03/29/2017 1145

Client Matrix: Solid

Date Received: 03/29/2017 1840

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|------|-----|-----|--------------------|
| Percent Moisture | 16.1 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-427234 | Analysis Date: 03/30/2017 | | 1637 | | | DryWt Corrected: N |
| Percent Solids | 83.9 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-427234 | Analysis Date: 03/30/2017 | | 1637 | | | DryWt Corrected: N |

DATA REPORTING QUALIFIERS

Client: AKRF Inc

Job Number: 460-130545-1

| Lab Section | Qualifier | Description |
|-------------------|-----------|---|
| GC/MS VOA | | |
| | U | Analyzed for but not detected. |
| | * | Duplicate RPD exceeds control limits |
| | J | Indicates an estimated value. |
| | * | LCS or LCSD is outside acceptance limits. |
| | * | MS or MSD is outside acceptance limits. |
| | B | The analyte was found in an associated blank, as well as in the sample. |
| GC/MS Semi VOA | | |
| | U | Analyzed for but not detected. |
| | J | Indicates an estimated value. |
| | * | MS or MSD is outside acceptance limits. |
| | * | Surrogate is outside acceptance limits. |
| GC Semi VOA | | |
| | U | Analyzed for but not detected. |
| | * | MS or MSD is outside acceptance limits. |
| | * | Surrogate is outside acceptance limits. |
| Metals | | |
| | * | Duplicate analysis not within control limits. |
| | U | Indicates analyzed for but not detected. |
| | 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| | J | Sample result is greater than the MDL but below the CRDL |
| | N | Spiked sample recovery is not within control limits. |
| General Chemistry | | |
| | * | Duplicate analysis not within control limits. |

QUALITY CONTROL RESULTS

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|--|--------------|---------------|--------|------------|
| GC/MS VOA | | | | | |
| Prep Batch: 460-427077 | | | | | |
| LB3 460-427077/1-A | Neutral Leach or MeOH Extraction Blank | T | Solid | 5035 | |
| 460-130545-1 | SB-6(0-1)-170329 | T | Solid | 5035 | |
| 460-130545-2 | SB-6(18-19)-170329 | T | Solid | 5035 | |
| 460-130545-4 | SB-1(1-2)-170329 | T | Solid | 5035 | |
| 460-130545-5 | SB-1(17-18)-170329 | T | Solid | 5035 | |
| Analysis Batch:460-427321 | | | | | |
| LCS 460-427321/3 | Lab Control Sample | T | Solid | 8260C | |
| LCSD 460-427321/4 | Lab Control Sample Duplicate | T | Solid | 8260C | |
| MB 460-427321/7 | Method Blank | T | Solid | 8260C | |
| LB3 460-427077/1-A | Neutral Leach or MeOH Extraction Blank | T | Solid | 8260C | 460-427077 |
| Analysis Batch:460-427729 | | | | | |
| LCS 460-427729/3 | Lab Control Sample | T | Solid | 8260C | |
| LCSD 460-427729/4 | Lab Control Sample Duplicate | T | Solid | 8260C | |
| MB 460-427729/7 | Method Blank | T | Solid | 8260C | |
| 460-130545-1 | SB-6(0-1)-170329 | T | Solid | 8260C | 460-427077 |
| 460-130545-2 | SB-6(18-19)-170329 | T | Solid | 8260C | 460-427077 |
| 460-130545-4 | SB-1(1-2)-170329 | T | Solid | 8260C | 460-427077 |
| 460-130545-5 | SB-1(17-18)-170329 | T | Solid | 8260C | 460-427077 |
| Analysis Batch:460-428037 | | | | | |
| LCS 460-428037/3 | Lab Control Sample | T | Water | 8260C | |
| MB 460-428037/7 | Method Blank | T | Water | 8260C | |
| 460-130244-B-1 MS | Matrix Spike | T | Water | 8260C | |
| 460-130244-B-1 MSD | Matrix Spike Duplicate | T | Water | 8260C | |
| 460-130545-6 | GW-1-170329 | T | Water | 8260C | |

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|------------------------|--------------|---------------|--------|------------|
| GC/MS Semi VOA | | | | | |
| Prep Batch: 460-427170 | | | | | |
| LCS 460-427170/2-A | Lab Control Sample | T | Water | 3510C | |
| LCS 460-427170/3-A | Lab Control Sample | T | Water | 3510C | |
| MB 460-427170/1-A | Method Blank | T | Water | 3510C | |
| 460-130527-F-2-A MS | Matrix Spike | T | Water | 3510C | |
| 460-130527-G-2-A MSD | Matrix Spike Duplicate | T | Water | 3510C | |
| 460-130545-6 | GW-1-170329 | T | Water | 3510C | |
| Prep Batch: 460-427381 | | | | | |
| LCS 460-427381/2-A | Lab Control Sample | T | Solid | 3546 | |
| LCS 460-427381/3-A | Lab Control Sample | T | Solid | 3546 | |
| MB 460-427381/1-A | Method Blank | T | Solid | 3546 | |
| 460-130311-E-1-A MS | Matrix Spike | T | Solid | 3546 | |
| 460-130311-E-1-B MSD | Matrix Spike Duplicate | T | Solid | 3546 | |
| 460-130545-1 | SB-6(0-1)-170329 | T | Solid | 3546 | |
| 460-130545-2 | SB-6(18-19)-170329 | T | Solid | 3546 | |
| 460-130545-4 | SB-1(1-2)-170329 | T | Solid | 3546 | |
| 460-130545-5 | SB-1(17-18)-170329 | T | Solid | 3546 | |
| Analysis Batch:460-427556 | | | | | |
| LCS 460-427381/3-A | Lab Control Sample | T | Solid | 8270D | 460-427381 |
| 460-130311-E-1-A MS | Matrix Spike | T | Solid | 8270D | 460-427381 |
| 460-130311-E-1-B MSD | Matrix Spike Duplicate | T | Solid | 8270D | 460-427381 |
| 460-130545-1 | SB-6(0-1)-170329 | T | Solid | 8270D | 460-427381 |
| 460-130545-2 | SB-6(18-19)-170329 | T | Solid | 8270D | 460-427381 |
| 460-130545-4 | SB-1(1-2)-170329 | T | Solid | 8270D | 460-427381 |
| 460-130545-5 | SB-1(17-18)-170329 | T | Solid | 8270D | 460-427381 |
| Analysis Batch:460-427561 | | | | | |
| LCS 460-427170/2-A | Lab Control Sample | T | Water | 8270D | 460-427170 |
| LCS 460-427170/3-A | Lab Control Sample | T | Water | 8270D | 460-427170 |
| MB 460-427170/1-A | Method Blank | T | Water | 8270D | 460-427170 |
| 460-130527-F-2-A MS | Matrix Spike | T | Water | 8270D | 460-427170 |
| 460-130527-G-2-A MSD | Matrix Spike Duplicate | T | Water | 8270D | 460-427170 |
| 460-130545-6 | GW-1-170329 | T | Water | 8270D | 460-427170 |
| Analysis Batch:460-427788 | | | | | |
| LCS 460-427381/2-A | Lab Control Sample | T | Solid | 8270D | 460-427381 |
| MB 460-427381/1-A | Method Blank | T | Solid | 8270D | 460-427381 |

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|------------------------------|--------------|---------------|--------|------------|
| GC Semi VOA | | | | | |
| Prep Batch: 460-427110 | | | | | |
| LCS 460-427110/2-A | Lab Control Sample | T | Water | 3510C | |
| LCSD 460-427110/3-A | Lab Control Sample Duplicate | T | Water | 3510C | |
| MB 460-427110/1-A | Method Blank | T | Water | 3510C | |
| 460-130545-6 | GW-1-170329 | T | Water | 3510C | |
| Prep Batch: 460-427111 | | | | | |
| LCS 460-427111/2-A | Lab Control Sample | T | Water | 3510C | |
| LCSD 460-427111/3-A | Lab Control Sample Duplicate | T | Water | 3510C | |
| MB 460-427111/1-A | Method Blank | T | Water | 3510C | |
| 460-130545-6 | GW-1-170329 | T | Water | 3510C | |
| Analysis Batch:460-427383 | | | | | |
| LCS 460-427111/2-A | Lab Control Sample | T | Water | 8081B | 460-427111 |
| LCSD 460-427111/3-A | Lab Control Sample Duplicate | T | Water | 8081B | 460-427111 |
| MB 460-427111/1-A | Method Blank | T | Water | 8081B | 460-427111 |
| 460-130545-6 | GW-1-170329 | T | Water | 8081B | 460-427111 |
| Analysis Batch:460-427385 | | | | | |
| LCS 460-427110/2-A | Lab Control Sample | T | Water | 8082A | 460-427110 |
| LCSD 460-427110/3-A | Lab Control Sample Duplicate | T | Water | 8082A | 460-427110 |
| MB 460-427110/1-A | Method Blank | T | Water | 8082A | 460-427110 |
| 460-130545-6 | GW-1-170329 | T | Water | 8082A | 460-427110 |
| Prep Batch: 460-427405 | | | | | |
| LCS 460-427405/2-A | Lab Control Sample | T | Solid | 3546 | |
| MB 460-427405/1-A | Method Blank | T | Solid | 3546 | |
| 460-130545-1 | SB-6(0-1)-170329 | T | Solid | 3546 | |
| 460-130545-2 | SB-6(18-19)-170329 | T | Solid | 3546 | |
| 460-130545-4 | SB-1(1-2)-170329 | T | Solid | 3546 | |
| 460-130545-5 | SB-1(17-18)-170329 | T | Solid | 3546 | |
| 460-130588-D-12-A MS | Matrix Spike | T | Solid | 3546 | |
| 460-130588-D-12-B MSD | Matrix Spike Duplicate | T | Solid | 3546 | |
| Prep Batch: 460-427407 | | | | | |
| LCS 460-427407/2-A | Lab Control Sample | T | Solid | 3546 | |
| MB 460-427407/1-A | Method Blank | T | Solid | 3546 | |
| 460-130545-1 | SB-6(0-1)-170329 | T | Solid | 3546 | |
| 460-130545-2 | SB-6(18-19)-170329 | T | Solid | 3546 | |
| 460-130545-4 | SB-1(1-2)-170329 | T | Solid | 3546 | |
| 460-130545-5 | SB-1(17-18)-170329 | T | Solid | 3546 | |
| 460-130588-D-12-D MS | Matrix Spike | T | Solid | 3546 | |
| 460-130588-D-12-E MSD | Matrix Spike Duplicate | T | Solid | 3546 | |

TestAmerica Edison

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|------------------------|--------------|---------------|--------|------------|
| GC Semi VOA | | | | | |
| Analysis Batch:460-427683 | | | | | |
| LCS 460-427405/2-A | Lab Control Sample | T | Solid | 8082A | 460-427405 |
| MB 460-427405/1-A | Method Blank | T | Solid | 8082A | 460-427405 |
| 460-130545-1 | SB-6(0-1)-170329 | T | Solid | 8082A | 460-427405 |
| 460-130545-2 | SB-6(18-19)-170329 | T | Solid | 8082A | 460-427405 |
| 460-130545-4 | SB-1(1-2)-170329 | T | Solid | 8082A | 460-427405 |
| 460-130545-5 | SB-1(17-18)-170329 | T | Solid | 8082A | 460-427405 |
| 460-130588-D-12-A MS | Matrix Spike | T | Solid | 8082A | 460-427405 |
| 460-130588-D-12-B MSD | Matrix Spike Duplicate | T | Solid | 8082A | 460-427405 |
| Analysis Batch:460-427712 | | | | | |
| LCS 460-427407/2-A | Lab Control Sample | T | Solid | 8081B | 460-427407 |
| MB 460-427407/1-A | Method Blank | T | Solid | 8081B | 460-427407 |
| 460-130545-1 | SB-6(0-1)-170329 | T | Solid | 8081B | 460-427407 |
| 460-130545-2 | SB-6(18-19)-170329 | T | Solid | 8081B | 460-427407 |
| 460-130545-4 | SB-1(1-2)-170329 | T | Solid | 8081B | 460-427407 |
| 460-130545-5 | SB-1(17-18)-170329 | T | Solid | 8081B | 460-427407 |
| Analysis Batch:460-428039 | | | | | |
| 460-130588-D-12-D MS | Matrix Spike | T | Solid | 8081B | 460-427407 |
| 460-130588-D-12-E MSD | Matrix Spike Duplicate | T | Solid | 8081B | 460-427407 |

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|-------------------------------------|--------------|---------------|--------|------------|
| Metals | | | | | |
| Prep Batch: 460-427060 | | | | | |
| LCSSRM 460-427060/2-A | ^20LCS-Certified Reference Material | T | Solid | 7471B | |
| MB 460-427060/1-A | Method Blank | T | Solid | 7471B | |
| 460-130471-A-9-B DU | Duplicate | T | Solid | 7471B | |
| 460-130471-A-9-C MS | Matrix Spike | T | Solid | 7471B | |
| 460-130545-1 | SB-6(0-1)-170329 | T | Solid | 7471B | |
| 460-130545-2 | SB-6(18-19)-170329 | T | Solid | 7471B | |
| 460-130545-4 | SB-1(1-2)-170329 | T | Solid | 7471B | |
| 460-130545-5 | SB-1(17-18)-170329 | T | Solid | 7471B | |
| Analysis Batch:460-427152 | | | | | |
| LCSSRM 460-427060/2-A | ^20LCS-Certified Reference Material | T | Solid | 7471B | 460-427060 |
| MB 460-427060/1-A | Method Blank | T | Solid | 7471B | 460-427060 |
| 460-130471-A-9-B DU | Duplicate | T | Solid | 7471B | 460-427060 |
| 460-130471-A-9-C MS | Matrix Spike | T | Solid | 7471B | 460-427060 |
| 460-130545-1 | SB-6(0-1)-170329 | T | Solid | 7471B | 460-427060 |
| 460-130545-2 | SB-6(18-19)-170329 | T | Solid | 7471B | 460-427060 |
| 460-130545-4 | SB-1(1-2)-170329 | T | Solid | 7471B | 460-427060 |
| 460-130545-5 | SB-1(17-18)-170329 | T | Solid | 7471B | 460-427060 |
| Prep Batch: 460-427295 | | | | | |
| LCSSRM 460-427295/2-A | LCS-Certified Reference Material | T | Solid | 3050B | |
| MB 460-427295/1-A ^2 | Method Blank | T | Solid | 3050B | |
| 460-130542-E-1-B DU | Duplicate | T | Solid | 3050B | |
| 460-130542-E-1-C MS | Matrix Spike | T | Solid | 3050B | |
| 460-130545-2 | SB-6(18-19)-170329 | T | Solid | 3050B | |
| 460-130545-4 | SB-1(1-2)-170329 | T | Solid | 3050B | |
| 460-130545-5 | SB-1(17-18)-170329 | T | Solid | 3050B | |
| Prep Batch: 460-427296 | | | | | |
| LCSSRM 460-427296/2-A | ^4 LCS-Certified Reference Material | T | Solid | 3050B | |
| MB 460-427296/1-A ^2 | Method Blank | T | Solid | 3050B | |
| 460-130545-1 | SB-6(0-1)-170329 | T | Solid | 3050B | |
| 460-130545-1DU | Duplicate | T | Solid | 3050B | |
| 460-130545-1MS | Matrix Spike | T | Solid | 3050B | |
| Prep Batch: 460-427354 | | | | | |
| LCS 460-427354/2-A ^2 | Lab Control Sample | T | Water | 3010A | |
| MB 460-427354/1-A ^2 | Method Blank | T | Water | 3010A | |
| 460-130246-F-10-C DU ^2 | Duplicate | T | Water | 3010A | |
| 460-130246-F-10-D MS ^2 | Matrix Spike | T | Water | 3010A | |
| 460-130545-6 | GW-1-170329 | T | Water | 3010A | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|----------------------------------|--------------|---------------|--------|------------|
| Metals | | | | | |
| Prep Batch: 460-427427 | | | | | |
| LCS 460-427427/2-A | Lab Control Sample | T | Water | 7470A | |
| MB 460-427427/1-A | Method Blank | T | Water | 7470A | |
| 460-130539-F-5-B DU | Duplicate | T | Water | 7470A | |
| 460-130539-F-5-C MS | Matrix Spike | T | Water | 7470A | |
| 460-130545-6 | GW-1-170329 | T | Water | 7470A | |
| Prep Batch: 460-427431 | | | | | |
| LCS 460-427431/3-A | Lab Control Sample | T | Water | 7470A | |
| MB 460-427428/1-B | Method Blank | D | Water | 7470A | |
| 460-130507-B-10-A DU | Duplicate | D | Water | 7470A | |
| 460-130507-E-10-B MS | Matrix Spike | D | Water | 7470A | |
| 460-130545-6 | GW-1-170329 | D | Water | 7470A | |
| Analysis Batch:460-427477 | | | | | |
| LCSSRM 460-427295/2-A | LCS-Certified Reference Material | T | Solid | 6010C | 460-427295 |
| MB 460-427295/1-A ^2 | Method Blank | T | Solid | 6010C | 460-427295 |
| 460-130542-E-1-B DU | Duplicate | T | Solid | 6010C | 460-427295 |
| 460-130542-E-1-C MS | Matrix Spike | T | Solid | 6010C | 460-427295 |
| 460-130545-2 | SB-6(18-19)-170329 | T | Solid | 6010C | 460-427295 |
| 460-130545-4 | SB-1(1-2)-170329 | T | Solid | 6010C | 460-427295 |
| 460-130545-5 | SB-1(17-18)-170329 | T | Solid | 6010C | 460-427295 |
| Analysis Batch:460-427489 | | | | | |
| LCS 460-427427/2-A | Lab Control Sample | T | Water | 7470A | 460-427427 |
| MB 460-427427/1-A | Method Blank | T | Water | 7470A | 460-427427 |
| LCS 460-427431/3-A | Lab Control Sample | T | Water | 7470A | 460-427431 |
| MB 460-427428/1-B | Method Blank | D | Water | 7470A | 460-427431 |
| 460-130507-B-10-A DU | Duplicate | D | Water | 7470A | 460-427431 |
| 460-130507-E-10-B MS | Matrix Spike | D | Water | 7470A | 460-427431 |
| 460-130539-F-5-B DU | Duplicate | T | Water | 7470A | 460-427427 |
| 460-130539-F-5-C MS | Matrix Spike | T | Water | 7470A | 460-427427 |
| 460-130545-6 | GW-1-170329 | T | Water | 7470A | 460-427427 |
| 460-130545-6 | GW-1-170329 | D | Water | 7470A | 460-427431 |
| Analysis Batch:460-427491 | | | | | |
| LCSSRM 460-427296/2-A ^4 | LCS-Certified Reference Material | T | Solid | 6010C | 460-427296 |
| MB 460-427296/1-A ^2 | Method Blank | T | Solid | 6010C | 460-427296 |
| 460-130545-1 | SB-6(0-1)-170329 | T | Solid | 6010C | 460-427296 |
| 460-130545-1DU | Duplicate | T | Solid | 6010C | 460-427296 |
| 460-130545-1MS | Matrix Spike | T | Solid | 6010C | 460-427296 |

TestAmerica Edison

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|--------------------|--------------|---------------|----------|------------|
| Metals | | | | | |
| Analysis Batch:460-427660 | | | | | |
| LCS 460-427354/2-A ^2 | Lab Control Sample | T | Water | 6020A | 460-427354 |
| MB 460-427354/1-A ^2 | Method Blank | T | Water | 6020A | 460-427354 |
| 460-130246-F-10-C DU ^2 | Duplicate | T | Water | 6020A | 460-427354 |
| 460-130246-F-10-D MS ^2 | Matrix Spike | T | Water | 6020A | 460-427354 |
| 460-130545-6 | GW-1-170329 | T | Water | 6020A | 460-427354 |
| Prep Batch: 460-428185 | | | | | |
| LCS 460-428185/2-A | Lab Control Sample | T | Water | 3010A | |
| MB 460-428185/1-A | Method Blank | T | Water | 3010A | |
| 460-130174-I-1-B DU ^2 | Duplicate | D | Water | 3010A | |
| 460-130174-I-1-C MS ^2 | Matrix Spike | D | Water | 3010A | |
| 460-130545-6 | GW-1-170329 | D | Water | 3010A | |
| Analysis Batch:460-428349 | | | | | |
| LCS 460-428185/2-A | Lab Control Sample | T | Water | 6020A | 460-428185 |
| MB 460-428185/1-A | Method Blank | T | Water | 6020A | 460-428185 |
| 460-130174-I-1-B DU ^2 | Duplicate | D | Water | 6020A | 460-428185 |
| 460-130174-I-1-C MS ^2 | Matrix Spike | D | Water | 6020A | 460-428185 |
| Analysis Batch:460-428431 | | | | | |
| 460-130545-6 | GW-1-170329 | D | Water | 6020A | 460-428185 |
| Analysis Batch:460-428498 | | | | | |
| 460-130545-6 | GW-1-170329 | D | Water | 6020A | 460-428185 |
| Report Basis | | | | | |
| D = Dissolved | | | | | |
| T = Total | | | | | |
| General Chemistry | | | | | |
| Analysis Batch:460-427233 | | | | | |
| 460-130545-1 | SB-6(0-1)-170329 | T | Solid | Moisture | |
| 460-130545-1DU | Duplicate | T | Solid | Moisture | |
| Analysis Batch:460-427234 | | | | | |
| 460-130306-A-11 DU | Duplicate | T | Solid | Moisture | |
| 460-130545-2 | SB-6(18-19)-170329 | T | Solid | Moisture | |
| 460-130545-4 | SB-1(1-2)-170329 | T | Solid | Moisture | |
| 460-130545-5 | SB-1(17-18)-170329 | T | Solid | Moisture | |
| Report Basis | | | | | |
| T = Total | | | | | |

TestAmerica Edison

Client: AKRF Inc

Job Number: 460-130545-1

Surrogate Recovery Report**8260C Volatile Organic Compounds by GC/MS****Client Matrix: Solid**

| Lab Sample ID | Client Sample ID | DCA %Rec | BFB %Rec | DBFM %Rec | TOL %Rec |
|--------------------|--------------------|-------------|-------------|--------------|-------------|
| 460-130545-1 | SB-6(0-1)-170329 | 104 | 111 | 115 | 100 |
| 460-130545-2 | SB-6(18-19)-170329 | 104 | 115 | 116 | 100 |
| 460-130545-4 | SB-1(1-2)-170329 | 104 | 113 | 115 | 99 |
| 460-130545-5 | SB-1(17-18)-170329 | 103 | 113 | 114 | 100 |
| MB 460-427321/7 | | 92 | 104 | 103 | 95 |
| MB 460-427729/7 | | 102 | 116 | 117 | 105 |
| LB3 460-427077/1-A | | 92 | 105 | 106 | 95 |
| LCS 460-427321/3 | | 96 | 105 | 105 | 99 |
| LCS 460-427729/3 | | 96 | 107 | 108 | 99 |
| LCSD 460-427321/4 | | 92 | 103 | 102 | 97 |
| LCSD 460-427729/4 | | 97 | 108 | 109 | 98 |

| Surrogate | Acceptance Limits |
|------------------------------------|-------------------|
| DCA = 1,2-Dichloroethane-d4 (Surr) | 78-135 |
| BFB = 4-Bromofluorobenzene | 67-126 |
| DBFM = Dibromofluoromethane (Surr) | 61-149 |
| TOL = Toluene-d8 (Surr) | 73-121 |

Client: AKRF Inc

Job Number: 460-130545-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Water

| Lab Sample ID | Client Sample ID | DCA %Rec | BFB %Rec | DBFM %Rec | TOL %Rec |
|--------------------|------------------|-------------|-------------|--------------|-------------|
| 460-130545-6 | GW-1-170329 | 109 | 101 | 102 | 98 |
| MB 460-428037/7 | | 108 | 102 | 103 | 98 |
| LCS 460-428037/3 | | 107 | 104 | 103 | 98 |
| 460-130244-B-1 MS | | 109 | 107 | 104 | 95 |
| 460-130244-B-1 MSD | | 107 | 105 | 104 | 98 |

| Surrogate | Acceptance Limits |
|------------------------------------|-------------------|
| DCA = 1,2-Dichloroethane-d4 (Surr) | 74-132 |
| BFB = 4-Bromofluorobenzene | 77-124 |
| DBFM = Dibromofluoromethane (Surr) | 72-131 |
| TOL = Toluene-d8 (Surr) | 80-120 |

Client: AKRF Inc

Job Number: 460-130545-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

| Lab Sample ID | Client Sample ID | TBP %Rec | FBP %Rec | 2FP %Rec | NBZ %Rec | PHL %Rec | TPHL %Rec |
|-------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| 460-130545-1 | SB-6(0-1)-170329 | 48 | 79 | 58 | 72 | 56 | 69 |
| 460-130545-2 | SB-6(18-19)-170329 | 64 | 82 | 68 | 81 | 70 | 99 |
| 460-130545-4 | SB-1(1-2)-170329 | 54 | 89 | 64 | 79 | 65 | 81 |
| 460-130545-5 | SB-1(17-18)-170329 | 60 | 83 | 68 | 80 | 70 | 98 |
| MB 460-427381/1-A | | 86 | 82 | 79 | 83 | 83 | 102 |
| LCS 460-427381/2-A | | 103 | 87 | 79 | 83 | 82 | 97 |
| LCS 460-427381/3-A | | 93 | 101* | 89 | 103* | 88 | 115* |
| 460-130311-E-1-A MS | | 67 | 79 | 63 | 73 | 64 | 78 |
| 460-130311-E-1-B MSD | | 70 | 83 | 66 | 75 | 67 | 79 |

| Surrogate | Acceptance Limits |
|-----------------------------------|-------------------|
| TBP = 2,4,6-Tribromophenol (Surr) | 10-103 |
| FBP = 2-Fluorobiphenyl | 38-95 |
| 2FP = 2-Fluorophenol (Surr) | 25-92 |
| NBZ = Nitrobenzene-d5 (Surr) | 37-94 |
| PHL = Phenol-d5 (Surr) | 32-91 |
| TPHL = Terphenyl-d14 (Surr) | 24-109 |

Client: AKRF Inc

Job Number: 460-130545-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

| Lab Sample ID | Client Sample ID | TBP %Rec | FBP %Rec | 2FP %Rec | NBZ %Rec | PHL %Rec | TPHL %Rec |
|-------------------------|------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| 460-130545-6 | GW-1-170329 | 88 | 86 | 39 | 87 | 22 | 78 |
| MB 460-427170/1-A | | 81 | 79 | 34 | 82 | 21 | 79 |
| LCS 460-427170/2-A | | 82 | 84 | 31 | 87 | 19 | 68 |
| LCS 460-427170/3-A | | 86 | 79 | 41 | 95 | 24 | 87 |
| 460-130527-F-2-A MS | | 86 | 89 | 37 | 82 | 25 | 85 |
| 460-130527-G-2-A MSD | | 80 | 90 | 40 | 87 | 26 | 78 |

| Surrogate | Acceptance Limits |
|-----------------------------------|-------------------|
| TBP = 2,4,6-Tribromophenol (Surr) | 26-139 |
| FBP = 2-Fluorobiphenyl | 45-107 |
| 2FP = 2-Fluorophenol (Surr) | 25-58 |
| NBZ = Nitrobenzene-d5 (Surr) | 51-108 |
| PHL = Phenol-d5 (Surr) | 14-39 |
| TPHL = Terphenyl-d14 (Surr) | 40-148 |

Client: AKRF Inc

Job Number: 460-130545-1

Surrogate Recovery Report

8081B Organochlorine Pesticides (GC)

Client Matrix: Solid

| Lab Sample ID | Client Sample ID | DCBP1 %Rec | DCBP2 %Rec | TCX1 %Rec | TCX2 %Rec |
|--------------------------|--------------------|---------------|---------------|--------------|--------------|
| 460-130545-1 | SB-6(0-1)-170329 | 122 | 130 | 100 | 97 |
| 460-130545-2 | SB-6(18-19)-170329 | 115 | 116 | 97 | 95 |
| 460-130545-4 | SB-1(1-2)-170329 | 120 | 140 | 101 | 97 |
| 460-130545-5 | SB-1(17-18)-170329 | 127 | 131 | 112 | 104 |
| MB 460-427407/1-A | | 115 | 109 | 106 | 100 |
| LCS 460-427407/2-A | | 123 | 119 | 118 | 114 |
| 460-130588-D-12-D MS | | | 119 | 92 | |
| 460-130588-D-12-E MSD | | | 118 | 92 | |

| Surrogate | Acceptance Limits |
|-------------------------------|-------------------|
| DCBP = DCB Decachlorobiphenyl | 50-150 |
| TCX = Tetrachloro-m-xylene | 47-150 |

Client: AKRF Inc

Job Number: 460-130545-1

Surrogate Recovery Report

8081B Organochlorine Pesticides (GC)

Client Matrix: Water

| Lab Sample ID | Client Sample ID | DCBP1 %Rec | DCBP2 %Rec | TCX1 %Rec | TCX2 %Rec |
|------------------------|------------------|---------------|---------------|--------------|--------------|
| 460-130545-6 | GW-1-170329 | 124 | 129 | 100 | 103 |
| MB 460-427111/1-A | | 108 | 111 | 83 | 85 |
| LCS 460-427111/2-A | | 101 | 103 | 85 | 83 |
| LCSD 460-427111/3-A | | 89 | 96 | 75 | 74 |

| Surrogate | Acceptance Limits |
|-------------------------------|-------------------|
| DCBP = DCB Decachlorobiphenyl | 10-150 |
| TCX = Tetrachloro-m-xylene | 16-150 |

Client: AKRF Inc

Job Number: 460-130545-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

| Lab Sample ID | Client Sample ID | DCBP1 %Rec | DCBP2 %Rec |
|--------------------------|--------------------|---------------|---------------|
| 460-130545-1 | SB-6(0-1)-170329 | 147 | 146 |
| 460-130545-2 | SB-6(18-19)-170329 | 150 | 150 |
| 460-130545-4 | SB-1(1-2)-170329 | 151* | 153* |
| 460-130545-5 | SB-1(17-18)-170329 | 148 | 149 |
| MB 460-427405/1-A | | 144 | 144 |
| LCS 460-427405/2-A | | 138 | 139 |
| 460-130588-D-12-A MS | | 141 | |
| 460-130588-D-12-B MSD | | 146 | |

| | |
|-------------------------------|-------------------|
| Surrogate | Acceptance Limits |
| DCBP = DCB Decachlorobiphenyl | 35-150 |

Client: AKRF Inc

Job Number: 460-130545-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Water

| Lab Sample ID | Client Sample ID | DCBP1 %Rec | DCBP2 %Rec |
|------------------------|------------------|---------------|---------------|
| 460-130545-6 | GW-1-170329 | 88 | 105 |
| MB 460-427110/1-A | | 127 | 116 |
| LCS 460-427110/2-A | | 108 | 113 |
| LCSD 460-427110/3-A | | 107 | 111 |

| Surrogate | Acceptance Limits |
|-------------------------------|-------------------|
| DCBP = DCB Decachlorobiphenyl | 10-150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Neutral Leach or MeOH Extraction Blank - Batch: 460-427077

**Method: 8260C
Preparation: 5035**

Lab Sample ID: LB3 460-427077/1-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/31/2017 1542
Prep Date: 03/30/2017 0649
Leach Date: N/A

Analysis Batch: 460-427321
Prep Batch: 460-427077
Leach Batch: N/A
Units: ug/Kg

Instrument ID: CVOAMS9
Lab File ID: K65802.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------------------|--------|------|------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.38 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.44 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.41 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.32 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.47 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | 20 | U | 6.4 | 20 |
| 2-Butanone (MEK) | 5.0 | U | 0.77 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.94 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 2.2 | 5.0 |
| Acetone | 2.42 | J | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.20 | 1.0 |
| Bromoform | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | 1.0 | U | 0.32 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.43 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.43 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | 1.0 | U | 0.35 | 1.0 |
| Chloroform | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | 1.0 | U | 0.38 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | 1.0 | U | 0.46 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.38 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.32 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | 5.0 | U | 0.90 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.50 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.32 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.11 | 1.0 |
| o-Xylene | 1.0 | U | 0.16 | 1.0 |
| Styrene | 1.0 | U | 0.15 | 1.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Neutral Leach or MeOH Extraction Blank - Batch: 460-427077

**Method: 8260C
Preparation: 5035**

| | | |
|-----------------------------------|----------------------------|----------------------------|
| Lab Sample ID: LB3 460-427077/1-A | Analysis Batch: 460-427321 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: 460-427077 | Lab File ID: K65802.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 g |
| Analysis Date: 03/31/2017 1542 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: 03/30/2017 0649 | | |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|------|-----|
| Tetrachloroethene | 1.0 | U | 0.28 | 1.0 |
| Toluene | 1.0 | U | 0.19 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.39 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.10 | 1.0 |
| Trichloroethene | 1.0 | U | 0.26 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.34 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.39 | 1.0 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------------|-------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 92 | 78 - 135 |
| 4-Bromofluorobenzene | 105 | 67 - 126 |
| Dibromofluoromethane (Surr) | 106 | 61 - 149 |
| Toluene-d8 (Surr) | 95 | 73 - 121 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427321

**Method: 8260C
Preparation: N/A**

Lab Sample ID: MB 460-427321/7
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/31/2017 0736
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 460-427321
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CVOAMS9
 Lab File ID: K65782.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------------------|--------|------|------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.38 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.44 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.41 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.32 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.47 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | 20 | U | 6.4 | 20 |
| 2-Butanone (MEK) | 5.0 | U | 0.77 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.94 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 2.2 | 5.0 |
| Acetone | 2.56 | J | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.20 | 1.0 |
| Bromoform | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | 1.0 | U | 0.32 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.43 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.43 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | 1.0 | U | 0.35 | 1.0 |
| Chloroform | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | 1.0 | U | 0.38 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | 1.0 | U | 0.46 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.38 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.32 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | 5.0 | U | 0.90 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.50 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.32 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.11 | 1.0 |
| o-Xylene | 1.0 | U | 0.16 | 1.0 |
| Styrene | 1.0 | U | 0.15 | 1.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427321

**Method: 8260C
Preparation: N/A**

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Lab Sample ID: MB 460-427321/7 | Analysis Batch: 460-427321 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65782.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 0736 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|------|-----|
| Tetrachloroethene | 1.0 | U | 0.28 | 1.0 |
| Toluene | 1.0 | U | 0.19 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.39 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.10 | 1.0 |
| Trichloroethene | 1.0 | U | 0.26 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.34 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.39 | 1.0 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------------|-------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 92 | 78 - 135 |
| 4-Bromofluorobenzene | 104 | 67 - 126 |
| Dibromofluoromethane (Surr) | 103 | 61 - 149 |
| Toluene-d8 (Surr) | 95 | 73 - 121 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427321 **Method: 8260C**
Preparation: N/A

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-427321/3 | Analysis Batch: 460-427321 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65778.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 0554 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-427321/4 | Analysis Batch: 460-427321 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65779.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 0619 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|---------------------------------------|--------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 1,1,1-Trichloroethane | 99 | 100 | 80 - 125 | 1 | 30 | | |
| 1,1,2,2-Tetrachloroethane | 101 | 98 | 72 - 131 | 3 | 30 | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 107 | 110 | 78 - 132 | 3 | 30 | | |
| 1,1,2-Trichloroethane | 99 | 100 | 76 - 124 | 0 | 30 | | |
| 1,1-Dichloroethane | 94 | 95 | 80 - 124 | 1 | 30 | | |
| 1,1-Dichloroethene | 100 | 99 | 79 - 132 | 1 | 30 | | |
| 1,2,3-Trichlorobenzene | 105 | 101 | 75 - 123 | 4 | 30 | | |
| 1,2,4-Trichlorobenzene | 103 | 102 | 74 - 124 | 1 | 30 | | |
| 1,2-Dibromo-3-Chloropropane | 90 | 87 | 65 - 129 | 3 | 30 | | |
| 1,2-Dichlorobenzene | 101 | 99 | 80 - 121 | 2 | 30 | | |
| 1,2-Dichloroethane | 97 | 95 | 68 - 120 | 2 | 30 | | |
| 1,2-Dichloropropane | 97 | 98 | 77 - 124 | 1 | 30 | | |
| 1,3-Dichlorobenzene | 97 | 99 | 79 - 124 | 2 | 30 | | |
| 1,4-Dichlorobenzene | 98 | 98 | 79 - 121 | 1 | 30 | | |
| 1,4-Dioxane | 104 | 107 | 67 - 150 | 4 | 30 | | |
| 2-Butanone (MEK) | 112 | 114 | 61 - 140 | 2 | 30 | | |
| 2-Hexanone | 101 | 105 | 78 - 120 | 4 | 30 | | |
| 4-Methyl-2-pentanone (MIBK) | 106 | 109 | 80 - 120 | 3 | 30 | | |
| Acetone | 108 | 105 | 75 - 120 | 3 | 30 | | |
| Benzene | 96 | 96 | 75 - 127 | 0 | 30 | | |
| Bromoform | 101 | 97 | 19 - 150 | 4 | 30 | | |
| Bromomethane | 87 | 87 | 59 - 136 | 0 | 30 | | |
| Carbon disulfide | 99 | 98 | 74 - 130 | 1 | 30 | | |
| Carbon tetrachloride | 95 | 99 | 77 - 138 | 5 | 30 | | |
| Chlorobenzene | 98 | 100 | 80 - 120 | 2 | 30 | | |
| Chlorobromomethane | 102 | 104 | 80 - 125 | 2 | 30 | | |
| Chlorodibromomethane | 97 | 96 | 67 - 143 | 1 | 30 | | |
| Chloroethane | 86 | 85 | 50 - 139 | 1 | 30 | | |
| Chloroform | 97 | 99 | 80 - 122 | 2 | 30 | | |
| Chloromethane | 86 | 83 | 66 - 128 | 3 | 30 | | |
| cis-1,2-Dichloroethene | 101 | 101 | 80 - 123 | 1 | 30 | | |
| cis-1,3-Dichloropropene | 92 | 91 | 75 - 124 | 1 | 30 | | |
| Cyclohexane | 105 | 107 | 67 - 135 | 2 | 30 | | |
| Dichlorobromomethane | 97 | 99 | 76 - 129 | 2 | 30 | | |
| Dichlorodifluoromethane | 102 | 92 | 72 - 127 | 10 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427321** **Method: 8260C
Preparation: N/A**

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-427321/3 | Analysis Batch: 460-427321 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65778.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 0554 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-427321/4 | Analysis Batch: 460-427321 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65779.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 03/31/2017 0619 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------------|------------------|-------------------|--------------------------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Ethylbenzene | 101 | 101 | 79 - 124 | 0 | 30 | | |
| Ethylene Dibromide | 102 | 99 | 80 - 122 | 3 | 30 | | |
| Isopropylbenzene | 105 | 106 | 80 - 125 | 1 | 30 | | |
| Methyl acetate | 100 | 96 | 73 - 123 | 4 | 30 | | |
| Methyl tert-butyl ether | 104 | 102 | 80 - 120 | 2 | 30 | | |
| Methylcyclohexane | 102 | 101 | 71 - 137 | 0 | 30 | | |
| Methylene Chloride | 102 | 100 | 79 - 128 | 2 | 30 | | |
| m-Xylene & p-Xylene | 101 | 103 | 79 - 121 | 2 | 30 | | |
| o-Xylene | 105 | 106 | 79 - 123 | 1 | 30 | | |
| Styrene | 102 | 104 | 78 - 123 | 1 | 30 | | |
| Tetrachloroethene | 107 | 107 | 73 - 130 | 0 | 30 | | |
| Toluene | 98 | 99 | 75 - 122 | 1 | 30 | | |
| trans-1,2-Dichloroethene | 101 | 101 | 80 - 129 | 0 | 30 | | |
| trans-1,3-Dichloropropene | 90 | 92 | 72 - 121 | 1 | 30 | | |
| Trichloroethene | 99 | 103 | 79 - 122 | 4 | 30 | | |
| Trichlorofluoromethane | 96 | 95 | 68 - 136 | 1 | 30 | | |
| Vinyl chloride | 86 | 87 | 70 - 134 | 1 | 30 | | |
| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 96 | 92 | 78 - 135 | | | | |
| 4-Bromofluorobenzene | 105 | 103 | 67 - 126 | | | | |
| Dibromofluoromethane (Surr) | 105 | 102 | 61 - 149 | | | | |
| Toluene-d8 (Surr) | 99 | 97 | 73 - 121 | | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427729

**Method: 8260C
Preparation: N/A**

Lab Sample ID: MB 460-427729/7
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/02/2017 1936
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 460-427729
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CVOAMS9
 Lab File ID: K65925.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------------------|--------|------|------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.38 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.44 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.41 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.32 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.47 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | 20 | U | 6.4 | 20 |
| 2-Butanone (MEK) | 5.0 | U | 0.77 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.94 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 2.2 | 5.0 |
| Acetone | 2.50 | J | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.20 | 1.0 |
| Bromoform | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | 1.0 | U | 0.32 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.43 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.43 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | 1.0 | U | 0.35 | 1.0 |
| Chloroform | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | 1.0 | U | 0.38 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | 1.0 | U | 0.46 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.38 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.32 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | 5.0 | U | 0.90 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.50 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.32 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.11 | 1.0 |
| o-Xylene | 1.0 | U | 0.16 | 1.0 |
| Styrene | 1.0 | U | 0.15 | 1.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427729

**Method: 8260C
Preparation: N/A**

Lab Sample ID: MB 460-427729/7
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/02/2017 1936
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 460-427729
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CVOAMS9
 Lab File ID: K65925.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|------|-----|
| Tetrachloroethene | 1.0 | U | 0.28 | 1.0 |
| Toluene | 1.0 | U | 0.19 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.39 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.10 | 1.0 |
| Trichloroethene | 1.0 | U | 0.26 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.34 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.39 | 1.0 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------------|-------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 102 | 78 - 135 |
| 4-Bromofluorobenzene | 116 | 67 - 126 |
| Dibromofluoromethane (Surr) | 117 | 61 - 149 |
| Toluene-d8 (Surr) | 105 | 73 - 121 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427729 **Method: 8260C**
Preparation: N/A

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-427729/3 | Analysis Batch: 460-427729 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65921.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/02/2017 1758 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-427729/4 | Analysis Batch: 460-427729 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65922.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/02/2017 1822 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|---------------------------------------|--------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 1,1,1-Trichloroethane | 111 | 105 | 80 - 125 | 6 | 30 | | |
| 1,1,2,2-Tetrachloroethane | 99 | 97 | 72 - 131 | 2 | 30 | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 118 | 109 | 78 - 132 | 7 | 30 | | |
| 1,1,2-Trichloroethane | 99 | 95 | 76 - 124 | 4 | 30 | | |
| 1,1-Dichloroethane | 102 | 96 | 80 - 124 | 6 | 30 | | |
| 1,1-Dichloroethene | 111 | 100 | 79 - 132 | 10 | 30 | | |
| 1,2,3-Trichlorobenzene | 107 | 101 | 75 - 123 | 6 | 30 | | |
| 1,2,4-Trichlorobenzene | 107 | 100 | 74 - 124 | 7 | 30 | | |
| 1,2-Dibromo-3-Chloropropane | 88 | 93 | 65 - 129 | 6 | 30 | | |
| 1,2-Dichlorobenzene | 105 | 100 | 80 - 121 | 5 | 30 | | |
| 1,2-Dichloroethane | 105 | 101 | 68 - 120 | 4 | 30 | | |
| 1,2-Dichloropropane | 104 | 99 | 77 - 124 | 5 | 30 | | |
| 1,3-Dichlorobenzene | 104 | 99 | 79 - 124 | 5 | 30 | | |
| 1,4-Dichlorobenzene | 104 | 99 | 79 - 121 | 5 | 30 | | |
| 1,4-Dioxane | 102 | 101 | 67 - 150 | 1 | 30 | | |
| 2-Butanone (MEK) | 117 | 107 | 61 - 140 | 9 | 30 | | |
| 2-Hexanone | 107 | 106 | 78 - 120 | 0 | 30 | | |
| 4-Methyl-2-pentanone (MIBK) | 113 | 111 | 80 - 120 | 3 | 30 | | |
| Acetone | 108 | 98 | 75 - 120 | 10 | 30 | | |
| Benzene | 100 | 93 | 75 - 127 | 7 | 30 | | |
| Bromoform | 108 | 105 | 19 - 150 | 2 | 30 | | |
| Bromomethane | 101 | 97 | 59 - 136 | 4 | 30 | | |
| Carbon disulfide | 108 | 101 | 74 - 130 | 7 | 30 | | |
| Carbon tetrachloride | 112 | 106 | 77 - 138 | 5 | 30 | | |
| Chlorobenzene | 104 | 99 | 80 - 120 | 5 | 30 | | |
| Chlorobromomethane | 116 | 108 | 80 - 125 | 7 | 30 | | |
| Chlorodibromomethane | 104 | 100 | 67 - 143 | 4 | 30 | | |
| Chloroethane | 104 | 96 | 50 - 139 | 8 | 30 | | |
| Chloroform | 108 | 103 | 80 - 122 | 4 | 30 | | |
| Chloromethane | 97 | 94 | 66 - 128 | 3 | 30 | | |
| cis-1,2-Dichloroethene | 111 | 104 | 80 - 123 | 7 | 30 | | |
| cis-1,3-Dichloropropene | 94 | 91 | 75 - 124 | 4 | 30 | | |
| Cyclohexane | 113 | 104 | 67 - 135 | 8 | 30 | | |
| Dichlorobromomethane | 107 | 105 | 76 - 129 | 2 | 30 | | |
| Dichlorodifluoromethane | 109 | 109 | 72 - 127 | 0 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427729 **Method: 8260C**
Preparation: N/A

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-427729/3 | Analysis Batch: 460-427729 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65921.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/02/2017 1758 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-427729/4 | Analysis Batch: 460-427729 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K65922.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/02/2017 1822 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------------|------------------|-------------------|--------------------------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Ethylbenzene | 107 | 102 | 79 - 124 | 5 | 30 | | |
| Ethylene Dibromide | 105 | 101 | 80 - 122 | 4 | 30 | | |
| Isopropylbenzene | 113 | 106 | 80 - 125 | 6 | 30 | | |
| Methyl acetate | 102 | 97 | 73 - 123 | 5 | 30 | | |
| Methyl tert-butyl ether | 107 | 102 | 80 - 120 | 4 | 30 | | |
| Methylcyclohexane | 104 | 102 | 71 - 137 | 1 | 30 | | |
| Methylene Chloride | 109 | 101 | 79 - 128 | 7 | 30 | | |
| m-Xylene & p-Xylene | 110 | 104 | 79 - 121 | 6 | 30 | | |
| o-Xylene | 111 | 107 | 79 - 123 | 4 | 30 | | |
| Styrene | 109 | 104 | 78 - 123 | 5 | 30 | | |
| Tetrachloroethene | 116 | 107 | 73 - 130 | 7 | 30 | | |
| Toluene | 103 | 96 | 75 - 122 | 7 | 30 | | |
| trans-1,2-Dichloroethene | 112 | 103 | 80 - 129 | 8 | 30 | | |
| trans-1,3-Dichloropropene | 93 | 90 | 72 - 121 | 3 | 30 | | |
| Trichloroethene | 110 | 104 | 79 - 122 | 6 | 30 | | |
| Trichlorofluoromethane | 112 | 110 | 68 - 136 | 2 | 30 | | |
| Vinyl chloride | 102 | 100 | 70 - 134 | 2 | 30 | | |
| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 96 | 97 | 78 - 135 | | | | |
| 4-Bromofluorobenzene | 107 | 108 | 67 - 126 | | | | |
| Dibromofluoromethane (Surr) | 108 | 109 | 61 - 149 | | | | |
| Toluene-d8 (Surr) | 99 | 98 | 73 - 121 | | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-428037

**Method: 8260C
Preparation: 5030C**

Lab Sample ID: MB 460-428037/7
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/04/2017 1023
 Prep Date: 04/04/2017 1023
 Leach Date: N/A

Analysis Batch: 460-428037
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CVOAMS8
 Lab File ID: J53345.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------------------|--------|------|-------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.19 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.080 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.24 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.34 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.35 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.27 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.23 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.22 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.25 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.18 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dioxane | 50 | U | 8.7 | 50 |
| 2-Butanone (MEK) | 5.0 | U | 2.2 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.72 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 0.63 | 5.0 |
| Acetone | 5.0 | U | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.090 | 1.0 |
| Bromoform | 1.0 | U | 0.18 | 1.0 |
| Bromomethane | 1.0 | U | 0.18 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.22 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.33 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.24 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.30 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.22 | 1.0 |
| Chloroethane | 1.0 | U | 0.37 | 1.0 |
| Chloroform | 1.0 | U | 0.22 | 1.0 |
| Chloromethane | 1.0 | U | 0.22 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.26 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.16 | 1.0 |
| Cyclohexane | 1.0 | U | 0.26 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.15 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.14 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.30 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.19 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.32 | 1.0 |
| Methyl acetate | 5.0 | U | 0.58 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.13 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.22 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.21 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.28 | 1.0 |
| o-Xylene | 1.0 | U | 0.32 | 1.0 |
| Styrene | 1.0 | U | 0.17 | 1.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-428037

**Method: 8260C
Preparation: 5030C**

Lab Sample ID: MB 460-428037/7
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/04/2017 1023
 Prep Date: 04/04/2017 1023
 Leach Date: N/A

Analysis Batch: 460-428037
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CVOAMS8
 Lab File ID: J53345.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|-------|-----|
| Tetrachloroethene | 1.0 | U | 0.12 | 1.0 |
| Toluene | 1.0 | U | 0.25 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.18 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.19 | 1.0 |
| Trichloroethene | 1.0 | U | 0.22 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.15 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.060 | 1.0 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------------|-------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 108 | 74 - 132 |
| 4-Bromofluorobenzene | 102 | 77 - 124 |
| Dibromofluoromethane (Surr) | 103 | 72 - 131 |
| Toluene-d8 (Surr) | 98 | 80 - 120 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample - Batch: 460-428037

**Method: 8260C
Preparation: 5030C**

| | | |
|---------------------------------|----------------------------|-----------------------------|
| Lab Sample ID: LCS 460-428037/3 | Analysis Batch: 460-428037 | Instrument ID: CVOAMS8 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: J53341.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/04/2017 0837 | Units: ug/L | Final Weight/Volume: 5 mL |
| Prep Date: 04/04/2017 0837 | | |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------------------------------------|--------------|--------|--------|----------|------|
| 1,1,1-Trichloroethane | 20.0 | 21.2 | 106 | 75 - 125 | |
| 1,1,2,2-Tetrachloroethane | 20.0 | 20.6 | 103 | 74 - 120 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 20.0 | 17.6 | 88 | 59 - 150 | |
| 1,1,2-Trichloroethane | 20.0 | 20.2 | 101 | 78 - 120 | |
| 1,1-Dichloroethane | 20.0 | 21.6 | 108 | 77 - 123 | |
| 1,1-Dichloroethene | 20.0 | 20.3 | 101 | 74 - 123 | |
| 1,2,3-Trichlorobenzene | 20.0 | 24.4 | 122 | 78 - 131 | |
| 1,2,4-Trichlorobenzene | 20.0 | 22.5 | 113 | 80 - 124 | |
| 1,2-Dibromo-3-Chloropropane | 20.0 | 21.8 | 109 | 55 - 134 | |
| 1,2-Dichlorobenzene | 20.0 | 22.1 | 111 | 80 - 120 | |
| 1,2-Dichloroethane | 20.0 | 21.9 | 109 | 76 - 121 | |
| 1,2-Dichloropropane | 20.0 | 20.6 | 103 | 77 - 123 | |
| 1,3-Dichlorobenzene | 20.0 | 22.4 | 112 | 80 - 120 | |
| 1,4-Dichlorobenzene | 20.0 | 22.3 | 111 | 80 - 120 | |
| 1,4-Dioxane | 400 | 717 | 179 | 10 - 150 | * |
| 2-Butanone (MEK) | 100 | 106 | 106 | 64 - 120 | |
| 2-Hexanone | 100 | 99.1 | 99 | 71 - 125 | |
| 4-Methyl-2-pentanone (MIBK) | 100 | 102 | 102 | 78 - 124 | |
| Acetone | 100 | 116 | 116 | 39 - 150 | |
| Benzene | 20.0 | 21.4 | 107 | 77 - 121 | |
| Bromoform | 20.0 | 22.5 | 112 | 53 - 120 | |
| Bromomethane | 20.0 | 21.9 | 110 | 10 - 150 | |
| Carbon disulfide | 20.0 | 21.5 | 108 | 69 - 133 | |
| Carbon tetrachloride | 20.0 | 21.7 | 109 | 70 - 132 | |
| Chlorobenzene | 20.0 | 20.4 | 102 | 80 - 120 | |
| Chlorobromomethane | 20.0 | 19.9 | 100 | 77 - 127 | |
| Chlorodibromomethane | 20.0 | 21.5 | 107 | 73 - 120 | |
| Chloroethane | 20.0 | 23.0 | 115 | 52 - 150 | |
| Chloroform | 20.0 | 22.0 | 110 | 80 - 120 | |
| Chloromethane | 20.0 | 19.1 | 96 | 56 - 131 | |
| cis-1,2-Dichloroethene | 20.0 | 20.6 | 103 | 80 - 120 | |
| cis-1,3-Dichloropropene | 20.0 | 20.3 | 101 | 77 - 120 | |
| Cyclohexane | 20.0 | 18.5 | 92 | 56 - 150 | |
| Dichlorobromomethane | 20.0 | 21.6 | 108 | 76 - 120 | |
| Dichlorodifluoromethane | 20.0 | 16.2 | 81 | 50 - 131 | |
| Ethylbenzene | 20.0 | 20.6 | 103 | 80 - 120 | |
| Ethylene Dibromide | 20.0 | 21.1 | 105 | 80 - 120 | |
| Isopropylbenzene | 20.0 | 22.0 | 110 | 80 - 123 | |
| Methyl acetate | 100 | 117 | 117 | 66 - 144 | |
| Methyl tert-butyl ether | 20.0 | 20.6 | 103 | 79 - 122 | |
| Methylcyclohexane | 20.0 | 18.1 | 90 | 61 - 145 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample - Batch: 460-428037

Method: 8260C
Preparation: 5030C

| | | |
|---------------------------------|----------------------------|-----------------------------|
| Lab Sample ID: LCS 460-428037/3 | Analysis Batch: 460-428037 | Instrument ID: CVOAMS8 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: J53341.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/04/2017 0837 | Units: ug/L | Final Weight/Volume: 5 mL |
| Prep Date: 04/04/2017 0837 | | |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------------|--------------|--------|--------|-------------------|------|
| Methylene Chloride | 20.0 | 20.4 | 102 | 77 - 123 | |
| m-Xylene & p-Xylene | 20.0 | 20.2 | 101 | 80 - 120 | |
| o-Xylene | 20.0 | 20.0 | 100 | 80 - 120 | |
| Styrene | 20.0 | 20.1 | 100 | 80 - 120 | |
| Tetrachloroethene | 20.0 | 21.9 | 110 | 78 - 122 | |
| Toluene | 20.0 | 21.4 | 107 | 80 - 120 | |
| trans-1,2-Dichloroethene | 20.0 | 20.2 | 101 | 79 - 120 | |
| trans-1,3-Dichloropropene | 20.0 | 20.0 | 100 | 76 - 120 | |
| Trichloroethene | 20.0 | 19.6 | 98 | 77 - 120 | |
| Trichlorofluoromethane | 20.0 | 22.3 | 111 | 71 - 143 | |
| Vinyl chloride | 20.0 | 20.9 | 105 | 62 - 138 | |
| <hr/> | | | | | |
| Surrogate | | % Rec | | Acceptance Limits | |
| 1,2-Dichloroethane-d4 (Surr) | | 107 | | 74 - 132 | |
| 4-Bromofluorobenzene | | 104 | | 77 - 124 | |
| Dibromofluoromethane (Surr) | | 103 | | 72 - 131 | |
| Toluene-d8 (Surr) | | 98 | | 80 - 120 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-428037**

**Method: 8260C
Preparation: 5030C**

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| MS Lab Sample ID: 460-130244-B-1 MS | Analysis Batch: 460-428037 | Instrument ID: CVOAMS8 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: J53351.D |
| Dilution: 5.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/04/2017 1302 | | Final Weight/Volume: 5 mL |
| Prep Date: 04/04/2017 1302 | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| MSD Lab Sample ID: 460-130244-B-1 MSD | Analysis Batch: 460-428037 | Instrument ID: CVOAMS8 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: J53352.D |
| Dilution: 5.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/04/2017 1329 | | Final Weight/Volume: 5 mL |
| Prep Date: 04/04/2017 1329 | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---------------------------------------|--------|------|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| 1,1,1-Trichloroethane | 105 | 105 | 75 - 125 | 0 | 30 | | |
| 1,1,2,2-Tetrachloroethane | 101 | 101 | 74 - 120 | 0 | 30 | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 100 | 104 | 59 - 150 | 5 | 30 | | |
| 1,1,2-Trichloroethane | 96 | 100 | 78 - 120 | 4 | 30 | | |
| 1,1-Dichloroethane | 106 | 105 | 77 - 123 | 1 | 30 | | |
| 1,1-Dichloroethene | 100 | 100 | 74 - 123 | 0 | 30 | | |
| 1,2,3-Trichlorobenzene | 105 | 114 | 78 - 131 | 9 | 30 | | |
| 1,2,4-Trichlorobenzene | 99 | 105 | 80 - 124 | 6 | 30 | | |
| 1,2-Dibromo-3-Chloropropane | 101 | 106 | 55 - 134 | 4 | 30 | | |
| 1,2-Dichlorobenzene | 104 | 105 | 80 - 120 | 1 | 30 | | |
| 1,2-Dichloroethane | 105 | 110 | 76 - 121 | 4 | 30 | | |
| 1,2-Dichloropropane | 106 | 102 | 77 - 123 | 3 | 30 | | |
| 1,3-Dichlorobenzene | 105 | 107 | 80 - 120 | 2 | 30 | | |
| 1,4-Dichlorobenzene | 105 | 106 | 80 - 120 | 1 | 30 | | |
| 1,4-Dioxane | 123 | 181 | 10 - 150 | 39 | 30 | | * |
| 2-Butanone (MEK) | 129 | 133 | 64 - 120 | 3 | 30 | * | * |
| 2-Hexanone | 91 | 95 | 71 - 125 | 4 | 30 | | |
| 4-Methyl-2-pentanone (MIBK) | 102 | 105 | 78 - 124 | 3 | 30 | | |
| Acetone | 93 | 99 | 39 - 150 | 6 | 30 | | |
| Benzene | 101 | 105 | 77 - 121 | 4 | 30 | | |
| Bromoform | 109 | 107 | 53 - 120 | 2 | 30 | | |
| Bromomethane | 115 | 103 | 10 - 150 | 11 | 30 | | |
| Carbon disulfide | 103 | 103 | 69 - 133 | 1 | 30 | | |
| Carbon tetrachloride | 108 | 109 | 70 - 132 | 2 | 30 | | |
| Chlorobenzene | 101 | 101 | 80 - 120 | 0 | 30 | | |
| Chlorobromomethane | 107 | 102 | 77 - 127 | 5 | 30 | | |
| Chlorodibromomethane | 102 | 103 | 73 - 120 | 1 | 30 | | |
| Chloroethane | 120 | 116 | 52 - 150 | 3 | 30 | | |
| Chloroform | 109 | 107 | 80 - 120 | 2 | 30 | | |
| Chloromethane | 98 | 98 | 56 - 131 | 1 | 30 | | |
| cis-1,2-Dichloroethene | -170 | -222 | 80 - 120 | 2 | 30 | * | * |
| cis-1,3-Dichloropropene | 95 | 98 | 77 - 120 | 3 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-428037**

**Method: 8260C
Preparation: 5030C**

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| MS Lab Sample ID: 460-130244-B-1 MS | Analysis Batch: 460-428037 | Instrument ID: CVOAMS8 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: J53351.D |
| Dilution: 5.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/04/2017 1302 | | Final Weight/Volume: 5 mL |
| Prep Date: 04/04/2017 1302 | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| MSD Lab Sample ID: 460-130244-B-1 MSD | Analysis Batch: 460-428037 | Instrument ID: CVOAMS8 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: J53352.D |
| Dilution: 5.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/04/2017 1329 | | Final Weight/Volume: 5 mL |
| Prep Date: 04/04/2017 1329 | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Cyclohexane | 98 | 102 | 56 - 150 | 4 | 30 | | |
| Dichlorobromomethane | 106 | 104 | 76 - 120 | 1 | 30 | | |
| Dichlorodifluoromethane | 85 | 91 | 50 - 131 | 6 | 30 | | |
| Ethylbenzene | 94 | 99 | 80 - 120 | 5 | 30 | | |
| Ethylene Dibromide | 99 | 105 | 80 - 120 | 5 | 30 | | |
| Isopropylbenzene | 103 | 105 | 80 - 123 | 2 | 30 | | |
| Methyl acetate | 114 | 116 | 66 - 144 | 2 | 30 | | |
| Methyl tert-butyl ether | 103 | 102 | 79 - 122 | 2 | 30 | | |
| Methylcyclohexane | 94 | 103 | 61 - 145 | 9 | 30 | | |
| Methylene Chloride | 104 | 97 | 77 - 123 | 7 | 30 | | |
| m-Xylene & p-Xylene | 95 | 96 | 80 - 120 | 1 | 30 | | |
| o-Xylene | 97 | 100 | 80 - 120 | 3 | 30 | | |
| Styrene | 98 | 98 | 80 - 120 | 0 | 30 | | |
| Tetrachloroethene | 103 | 105 | 78 - 122 | 2 | 30 | | |
| Toluene | 100 | 104 | 80 - 120 | 4 | 30 | | |
| trans-1,2-Dichloroethene | 97 | 98 | 79 - 120 | 0 | 30 | | |
| trans-1,3-Dichloropropene | 92 | 93 | 76 - 120 | 2 | 30 | | |
| Trichloroethene | 94 | 95 | 77 - 120 | 1 | 30 | | |
| Trichlorofluoromethane | 117 | 123 | 71 - 143 | 5 | 30 | | |
| Vinyl chloride | 92 | 94 | 62 - 138 | 1 | 30 | | |

| Surrogate | MS % Rec | MSD % Rec | Acceptance Limits |
|------------------------------|----------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 109 | 107 | 74 - 132 |
| 4-Bromofluorobenzene | 107 | 105 | 77 - 124 |
| Dibromofluoromethane (Surr) | 104 | 104 | 72 - 131 |
| Toluene-d8 (Surr) | 95 | 98 | 80 - 120 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427170

**Method: 8270D
Preparation: 3510C**

Lab Sample ID: MB 460-427170/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/01/2017 0303
 Prep Date: 03/30/2017 1252
 Leach Date: N/A

Analysis Batch: 460-427561
 Prep Batch: 460-427170
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CBNAMS4
 Lab File ID: U334015.D
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 2 mL
 Injection Volume: 5 uL

| Analyte | Result | Qual | MDL | RL |
|------------------------------|--------|------|------|-----|
| 1,1'-Biphenyl | 10 | U | 0.63 | 10 |
| 1,2,4,5-Tetrachlorobenzene | 10 | U | 0.43 | 10 |
| 2,2'-oxybis[1-chloropropane] | 10 | U | 0.93 | 10 |
| 2,3,4,6-Tetrachlorophenol | 10 | U | 0.69 | 10 |
| 2,4,5-Trichlorophenol | 10 | U | 0.49 | 10 |
| 2,4,6-Trichlorophenol | 10 | U | 0.53 | 10 |
| 2,4-Dichlorophenol | 10 | U | 0.63 | 10 |
| 2,4-Dimethylphenol | 10 | U | 0.91 | 10 |
| 2,4-Dinitrophenol | 20 | U | 2.4 | 20 |
| 2,4-Dinitrotoluene | 2.0 | U | 1.0 | 2.0 |
| 2,6-Dinitrotoluene | 2.0 | U | 0.88 | 2.0 |
| 2-Chloronaphthalene | 10 | U | 0.61 | 10 |
| 2-Chlorophenol | 10 | U | 0.74 | 10 |
| 2-Methylnaphthalene | 10 | U | 0.88 | 10 |
| 2-Methylphenol | 10 | U | 1.3 | 10 |
| 2-Nitroaniline | 10 | U | 0.65 | 10 |
| 2-Nitrophenol | 10 | U | 0.59 | 10 |
| 3,3'-Dichlorobenzidine | 10 | U | 1.0 | 10 |
| 3-Nitroaniline | 10 | U | 0.82 | 10 |
| 4,6-Dinitro-2-methylphenol | 20 | U | 2.0 | 20 |
| 4-Bromophenyl phenyl ether | 10 | U | 1.0 | 10 |
| 4-Chloro-3-methylphenol | 10 | U | 0.76 | 10 |
| 4-Chloroaniline | 10 | U | 0.73 | 10 |
| 4-Chlorophenyl phenyl ether | 10 | U | 0.96 | 10 |
| 4-Methylphenol | 10 | U | 0.87 | 10 |
| 4-Nitroaniline | 10 | U | 0.48 | 10 |
| 4-Nitrophenol | 20 | U | 4.7 | 20 |
| Acenaphthene | 10 | U | 0.88 | 10 |
| Acenaphthylene | 10 | U | 0.65 | 10 |
| Acetophenone | 10 | U | 1.0 | 10 |
| Anthracene | 10 | U | 0.57 | 10 |
| Atrazine | 2.0 | U | 0.77 | 2.0 |
| Benzaldehyde | 10 | U | 0.86 | 10 |
| Benzo[a]anthracene | 1.0 | U | 0.55 | 1.0 |
| Benzo[a]pyrene | 1.0 | U | 0.16 | 1.0 |
| Benzo[b]fluoranthene | 1.0 | U | 0.44 | 1.0 |
| Benzo[g,h,i]perylene | 10 | U | 0.75 | 10 |
| Benzo[k]fluoranthene | 1.0 | U | 0.18 | 1.0 |
| Bis(2-chloroethoxy)methane | 10 | U | 0.69 | 10 |
| Bis(2-chloroethyl)ether | 1.0 | U | 0.12 | 1.0 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 0.72 | 2.0 |
| Butyl benzyl phthalate | 10 | U | 0.60 | 10 |
| Caprolactam | 10 | U | 1.1 | 10 |
| Carbazole | 10 | U | 0.85 | 10 |
| Chrysene | 2.0 | U | 0.67 | 2.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427170

**Method: 8270D
Preparation: 3510C**

Lab Sample ID: MB 460-427170/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/01/2017 0303
 Prep Date: 03/30/2017 1252
 Leach Date: N/A

Analysis Batch: 460-427561
 Prep Batch: 460-427170
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CBNAMS4
 Lab File ID: U334015.D
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 2 mL
 Injection Volume: 5 uL

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|-------|-----|
| Dibenz(a,h)anthracene | 1.0 | U | 0.090 | 1.0 |
| Dibenzofuran | 10 | U | 0.85 | 10 |
| Diethyl phthalate | 10 | U | 1.0 | 10 |
| Dimethyl phthalate | 10 | U | 0.98 | 10 |
| Di-n-butyl phthalate | 10 | U | 0.82 | 10 |
| Di-n-octyl phthalate | 10 | U | 0.69 | 10 |
| Fluoranthene | 10 | U | 0.72 | 10 |
| Fluorene | 10 | U | 0.80 | 10 |
| Hexachlorobenzene | 1.0 | U | 0.47 | 1.0 |
| Hexachlorobutadiene | 1.0 | U | 0.76 | 1.0 |
| Hexachlorocyclopentadiene | 10 | U | 0.61 | 10 |
| Hexachloroethane | 1.0 | U | 0.090 | 1.0 |
| Indeno[1,2,3-cd]pyrene | 1.0 | U | 0.21 | 1.0 |
| Isophorone | 10 | U | 0.67 | 10 |
| Naphthalene | 10 | U | 0.80 | 10 |
| Nitrobenzene | 1.0 | U | 0.49 | 1.0 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 0.83 | 1.0 |
| N-Nitrosodiphenylamine | 10 | U | 0.74 | 10 |
| Pentachlorophenol | 20 | U | 2.2 | 20 |
| Phenanthrene | 10 | U | 0.65 | 10 |
| Phenol | 10 | U | 0.41 | 10 |
| Pyrene | 10 | U | 0.83 | 10 |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 81 | 26 - 139 |
| 2-Fluorobiphenyl | 79 | 45 - 107 |
| 2-Fluorophenol (Surr) | 34 | 25 - 58 |
| Nitrobenzene-d5 (Surr) | 82 | 51 - 108 |
| Phenol-d5 (Surr) | 21 | 14 - 39 |
| Terphenyl-d14 (Surr) | 79 | 40 - 148 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample - Batch: 460-427170

**Method: 8270D
Preparation: 3510C**

| | | | | | |
|----------------|--------------------|-----------------|------------|------------------------|-----------|
| Lab Sample ID: | LCS 460-427170/2-A | Analysis Batch: | 460-427561 | Instrument ID: | CBNAMS4 |
| Client Matrix: | Water | Prep Batch: | 460-427170 | Lab File ID: | U334016.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 250 mL |
| Analysis Date: | 04/01/2017 0324 | Units: | ug/L | Final Weight/Volume: | 2 mL |
| Prep Date: | 03/30/2017 1252 | | | Injection Volume: | 5 uL |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------------|--------------|--------|--------|----------|------|
| 1,1'-Biphenyl | 80.0 | 75.1 | 94 | 54 - 108 | |
| 1,2,4,5-Tetrachlorobenzene | 80.0 | 77.6 | 97 | 46 - 105 | |
| 2,2'-oxybis[1-chloropropane] | 80.0 | 62.2 | 78 | 50 - 108 | |
| 2,3,4,6-Tetrachlorophenol | 80.0 | 67.9 | 85 | 57 - 122 | |
| 2,4,5-Trichlorophenol | 80.0 | 69.1 | 86 | 59 - 117 | |
| 2,4,6-Trichlorophenol | 80.0 | 74.2 | 93 | 62 - 120 | |
| 2,4-Dichlorophenol | 80.0 | 65.5 | 82 | 62 - 102 | |
| 2,4-Dimethylphenol | 80.0 | 56.9 | 71 | 61 - 95 | |
| 2,4-Dinitrophenol | 160 | 116 | 73 | 45 - 125 | |
| 2,4-Dinitrotoluene | 80.0 | 65.2 | 81 | 70 - 123 | |
| 2,6-Dinitrotoluene | 80.0 | 69.5 | 87 | 68 - 121 | |
| 2-Chloronaphthalene | 80.0 | 71.7 | 90 | 54 - 105 | |
| 2-Chlorophenol | 80.0 | 54.7 | 68 | 54 - 92 | |
| 2-Methylnaphthalene | 80.0 | 63.9 | 80 | 47 - 104 | |
| 2-Methylphenol | 80.0 | 39.9 | 50 | 43 - 80 | |
| 2-Nitroaniline | 80.0 | 70.4 | 88 | 46 - 124 | |
| 2-Nitrophenol | 80.0 | 64.2 | 80 | 58 - 109 | |
| 3,3'-Dichlorobenzidine | 80.0 | 77.8 | 97 | 68 - 123 | |
| 3-Nitroaniline | 80.0 | 57.4 | 72 | 60 - 117 | |
| 4,6-Dinitro-2-methylphenol | 160 | 155 | 97 | 59 - 132 | |
| 4-Bromophenyl phenyl ether | 80.0 | 71.6 | 89 | 57 - 126 | |
| 4-Chloro-3-methylphenol | 80.0 | 57.3 | 72 | 58 - 98 | |
| 4-Chloroaniline | 80.0 | 64.3 | 80 | 51 - 108 | |
| 4-Chlorophenyl phenyl ether | 80.0 | 75.2 | 94 | 60 - 114 | |
| 4-Methylphenol | 80.0 | 30.9 | 39 | 34 - 78 | |
| 4-Nitroaniline | 80.0 | 58.0 | 73 | 48 - 135 | |
| 4-Nitrophenol | 160 | 40.5 | 25 | 11 - 47 | |
| Acenaphthene | 80.0 | 62.1 | 78 | 58 - 107 | |
| Acenaphthylene | 80.0 | 71.1 | 89 | 61 - 106 | |
| Acetophenone | 80.0 | 72.6 | 91 | 54 - 115 | |
| Anthracene | 80.0 | 78.4 | 98 | 70 - 118 | |
| Benzo[a]anthracene | 80.0 | 78.7 | 98 | 73 - 119 | |
| Benzo[a]pyrene | 80.0 | 77.1 | 96 | 76 - 125 | |
| Benzo[b]fluoranthene | 80.0 | 79.4 | 99 | 78 - 123 | |
| Benzo[g,h,i]perylene | 80.0 | 86.5 | 108 | 63 - 133 | |
| Benzo[k]fluoranthene | 80.0 | 79.5 | 99 | 71 - 126 | |
| Bis(2-chloroethoxy)methane | 80.0 | 70.9 | 89 | 67 - 104 | |
| Bis(2-chloroethyl)ether | 80.0 | 67.2 | 84 | 63 - 106 | |
| Bis(2-ethylhexyl) phthalate | 80.0 | 73.8 | 92 | 63 - 135 | |
| Butyl benzyl phthalate | 80.0 | 67.0 | 84 | 66 - 129 | |
| Carbazole | 80.0 | 77.6 | 97 | 68 - 121 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample - Batch: 460-427170

**Method: 8270D
Preparation: 3510C**

| | | |
|-----------------------------------|----------------------------|-------------------------------|
| Lab Sample ID: LCS 460-427170/2-A | Analysis Batch: 460-427561 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-427170 | Lab File ID: U334016.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 04/01/2017 0324 | Units: ug/L | Final Weight/Volume: 2 mL |
| Prep Date: 03/30/2017 1252 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------------------------|--------------|--------|--------|----------|------|
| Chrysene | 80.0 | 77.1 | 96 | 73 - 121 | |
| Dibenz(a,h)anthracene | 80.0 | 81.7 | 102 | 59 - 136 | |
| Dibenzofuran | 80.0 | 65.6 | 82 | 67 - 108 | |
| Diethyl phthalate | 80.0 | 71.4 | 89 | 61 - 129 | |
| Dimethyl phthalate | 80.0 | 66.6 | 83 | 65 - 121 | |
| Di-n-butyl phthalate | 80.0 | 69.7 | 87 | 64 - 130 | |
| Di-n-octyl phthalate | 80.0 | 83.7 | 105 | 64 - 131 | |
| Fluoranthene | 80.0 | 80.1 | 100 | 66 - 123 | |
| Fluorene | 80.0 | 66.7 | 83 | 67 - 112 | |
| Hexachlorobenzene | 80.0 | 69.1 | 86 | 63 - 125 | |
| Hexachlorobutadiene | 80.0 | 57.8 | 72 | 34 - 99 | |
| Hexachlorocyclopentadiene | 80.0 | 76.1 | 95 | 18 - 99 | |
| Hexachloroethane | 80.0 | 59.1 | 74 | 39 - 92 | |
| Indeno[1,2,3-cd]pyrene | 80.0 | 89.0 | 111 | 57 - 142 | |
| Isophorone | 80.0 | 65.1 | 81 | 55 - 105 | |
| Naphthalene | 80.0 | 67.5 | 84 | 51 - 98 | |
| Nitrobenzene | 80.0 | 68.1 | 85 | 56 - 106 | |
| N-Nitrosodi-n-propylamine | 80.0 | 66.2 | 83 | 48 - 118 | |
| N-Nitrosodiphenylamine | 80.0 | 72.0 | 90 | 69 - 118 | |
| Pentachlorophenol | 160 | 130 | 81 | 54 - 120 | |
| Phenanthrene | 80.0 | 76.3 | 95 | 70 - 117 | |
| Phenol | 80.0 | 18.1 | 23 | 16 - 43 | |
| Pyrene | 80.0 | 60.6 | 76 | 63 - 129 | |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 82 | 26 - 139 |
| 2-Fluorobiphenyl | 84 | 45 - 107 |
| 2-Fluorophenol (Surr) | 31 | 25 - 58 |
| Nitrobenzene-d5 (Surr) | 87 | 51 - 108 |
| Phenol-d5 (Surr) | 19 | 14 - 39 |
| Terphenyl-d14 (Surr) | 68 | 40 - 148 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample - Batch: 460-427170

Method: 8270D
Preparation: 3510C

| | | |
|-----------------------------------|----------------------------|-------------------------------|
| Lab Sample ID: LCS 460-427170/3-A | Analysis Batch: 460-427561 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-427170 | Lab File ID: U334017.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 04/01/2017 0346 | Units: ug/L | Final Weight/Volume: 2 mL |
| Prep Date: 03/30/2017 1252 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------------------------|--------------|--------|--------|-------------------|------|
| Atrazine | 160 | 172 | 108 | 38 - 146 | |
| Benzaldehyde | 160 | 137 | 86 | 46 - 111 | |
| Caprolactam | 160 | 31.5 | 20 | 10 - 43 | |
| Surrogate | | % Rec | | Acceptance Limits | |
| 2,4,6-Tribromophenol (Surr) | | 86 | | 26 - 139 | |
| 2-Fluorobiphenyl | | 79 | | 45 - 107 | |
| 2-Fluorophenol (Surr) | | 41 | | 25 - 58 | |
| Nitrobenzene-d5 (Surr) | | 95 | | 51 - 108 | |
| Phenol-d5 (Surr) | | 24 | | 14 - 39 | |
| Terphenyl-d14 (Surr) | | 87 | | 40 - 148 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427170**

**Method: 8270D
Preparation: 3510C**

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| MS Lab Sample ID: 460-130527-F-2-A MS | Analysis Batch: 460-427561 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-427170 | Lab File ID: U334018.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 237 mL |
| Analysis Date: 04/01/2017 0407 | | Final Weight/Volume: 2 mL |
| Prep Date: 03/30/2017 1252 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| | | |
|---|----------------------------|-------------------------------|
| MSD Lab Sample ID: 460-130527-G-2-A MSD | Analysis Batch: 460-427561 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-427170 | Lab File ID: U334019.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 237 mL |
| Analysis Date: 04/01/2017 0428 | | Final Weight/Volume: 2 mL |
| Prep Date: 03/30/2017 1252 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| 1,1'-Biphenyl | 92 | 92 | 54 - 108 | 0 | 30 | | |
| 1,2,4,5-Tetrachlorobenzene | 93 | 97 | 46 - 105 | 4 | 30 | | |
| 2,2'-oxybis[1-chloropropane] | 85 | 86 | 50 - 108 | 1 | 30 | | |
| 2,3,4,6-Tetrachlorophenol | 95 | 84 | 57 - 122 | 12 | 30 | | |
| 2,4,5-Trichlorophenol | 96 | 91 | 59 - 117 | 6 | 30 | | |
| 2,4,6-Trichlorophenol | 88 | 92 | 62 - 120 | 4 | 30 | | |
| 2,4-Dichlorophenol | 84 | 82 | 62 - 102 | 2 | 30 | | |
| 2,4-Dimethylphenol | 66 | 70 | 61 - 95 | 5 | 30 | | |
| 2,4-Dinitrophenol | 92 | 85 | 45 - 125 | 7 | 30 | | |
| 2,4-Dinitrotoluene | 99 | 91 | 70 - 123 | 8 | 30 | | |
| 2,6-Dinitrotoluene | 101 | 100 | 68 - 121 | 1 | 30 | | |
| 2-Chloronaphthalene | 87 | 92 | 54 - 105 | 6 | 30 | | |
| 2-Chlorophenol | 74 | 74 | 54 - 92 | 0 | 30 | | |
| 2-Methylnaphthalene | 80 | 80 | 47 - 104 | 0 | 30 | | |
| 2-Methylphenol | 62 | 62 | 43 - 80 | 1 | 30 | | |
| 2-Nitroaniline | 61 | 60 | 46 - 124 | 2 | 30 | | |
| 2-Nitrophenol | 79 | 84 | 58 - 109 | 6 | 30 | | |
| 3,3'-Dichlorobenzidine | 0 | 0 | 68 - 123 | NC | 30 | U * | U * |
| 3-Nitroaniline | 24 | 24 | 60 - 117 | 1 | 30 | * | * |
| 4,6-Dinitro-2-methylphenol | 96 | 94 | 59 - 132 | 3 | 30 | | |
| 4-Bromophenyl phenyl ether | 79 | 85 | 57 - 126 | 7 | 30 | | |
| 4-Chloro-3-methylphenol | 76 | 73 | 58 - 98 | 3 | 30 | | |
| 4-Chloroaniline | 51 | 54 | 51 - 108 | 5 | 30 | | |
| 4-Chlorophenyl phenyl ether | 102 | 100 | 60 - 114 | 2 | 30 | | |
| 4-Methylphenol | 58 | 53 | 34 - 78 | 8 | 30 | | |
| 4-Nitroaniline | 21 | 19 | 48 - 135 | 14 | 30 | * | * |
| 4-Nitrophenol | 41 | 34 | 11 - 47 | 19 | 30 | | |
| Acenaphthene | 85 | 78 | 58 - 107 | 8 | 30 | | |
| Acenaphthylene | 92 | 89 | 61 - 106 | 4 | 30 | | |
| Acetophenone | 87 | 85 | 54 - 115 | 3 | 30 | | |
| Anthracene | 91 | 85 | 70 - 118 | 7 | 30 | | |
| Atrazine | 106 | 97 | 38 - 146 | 9 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427170**

**Method: 8270D
Preparation: 3510C**

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| MS Lab Sample ID: 460-130527-F-2-A MS | Analysis Batch: 460-427561 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-427170 | Lab File ID: U334018.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 237 mL |
| Analysis Date: 04/01/2017 0407 | | Final Weight/Volume: 2 mL |
| Prep Date: 03/30/2017 1252 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| | | |
|---|----------------------------|-------------------------------|
| MSD Lab Sample ID: 460-130527-G-2-A MSD | Analysis Batch: 460-427561 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-427170 | Lab File ID: U334019.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 237 mL |
| Analysis Date: 04/01/2017 0428 | | Final Weight/Volume: 2 mL |
| Prep Date: 03/30/2017 1252 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|-----------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Benzaldehyde | 69 | 79 | 46 - 111 | 12 | 30 | | |
| Benzo[a]anthracene | 92 | 93 | 73 - 119 | 1 | 30 | | |
| Benzo[a]pyrene | 93 | 93 | 76 - 125 | 0 | 30 | | |
| Benzo[b]fluoranthene | 102 | 100 | 78 - 123 | 2 | 30 | | |
| Benzo[g,h,i]perylene | 116 | 115 | 63 - 133 | 1 | 30 | | |
| Benzo[k]fluoranthene | 96 | 96 | 71 - 126 | 1 | 30 | | |
| Bis(2-chloroethoxy)methane | 85 | 92 | 67 - 104 | 8 | 30 | | |
| Bis(2-chloroethyl)ether | 88 | 89 | 63 - 106 | 1 | 30 | | |
| Bis(2-ethylhexyl) phthalate | 101 | 99 | 63 - 135 | 2 | 30 | | |
| Butyl benzyl phthalate | 101 | 96 | 66 - 129 | 5 | 30 | | |
| Caprolactam | 22 | 19 | 10 - 43 | 11 | 30 | | |
| Carbazole | 102 | 92 | 68 - 121 | 10 | 30 | | |
| Chrysene | 100 | 93 | 73 - 121 | 7 | 30 | | |
| Dibenz(a,h)anthracene | 113 | 111 | 59 - 136 | 2 | 30 | | |
| Dibenzofuran | 86 | 87 | 67 - 108 | 1 | 30 | | |
| Diethyl phthalate | 102 | 90 | 61 - 129 | 12 | 30 | | |
| Dimethyl phthalate | 91 | 88 | 65 - 121 | 4 | 30 | | |
| Di-n-butyl phthalate | 97 | 92 | 64 - 130 | 6 | 30 | | |
| Di-n-octyl phthalate | 104 | 103 | 64 - 131 | 1 | 30 | | |
| Fluoranthene | 109 | 94 | 66 - 123 | 14 | 30 | | |
| Fluorene | 93 | 88 | 67 - 112 | 5 | 30 | | |
| Hexachlorobenzene | 86 | 87 | 63 - 125 | 2 | 30 | | |
| Hexachlorobutadiene | 72 | 75 | 34 - 99 | 4 | 30 | | |
| Hexachlorocyclopentadiene | 99 | 98 | 18 - 99 | 0 | 30 | | |
| Hexachloroethane | 76 | 80 | 39 - 92 | 5 | 30 | | |
| Indeno[1,2,3-cd]pyrene | 154 | 154 | 57 - 142 | 0 | 30 | * | * |
| Isophorone | 80 | 85 | 55 - 105 | 6 | 30 | | |
| Naphthalene | 80 | 83 | 51 - 98 | 4 | 30 | | |
| Nitrobenzene | 92 | 96 | 56 - 106 | 4 | 30 | | |
| N-Nitrosodi-n-propylamine | 85 | 84 | 48 - 118 | 1 | 30 | | |
| N-Nitrosodiphenylamine | 82 | 79 | 69 - 118 | 4 | 30 | | |
| Pentachlorophenol | 85 | 81 | 54 - 120 | 5 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427170**

**Method: 8270D
Preparation: 3510C**

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| MS Lab Sample ID: 460-130527-F-2-A MS | Analysis Batch: 460-427561 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-427170 | Lab File ID: U334018.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 237 mL |
| Analysis Date: 04/01/2017 0407 | | Final Weight/Volume: 2 mL |
| Prep Date: 03/30/2017 1252 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| | | |
|---|----------------------------|-------------------------------|
| MSD Lab Sample ID: 460-130527-G-2-A MSD | Analysis Batch: 460-427561 | Instrument ID: CBNAMS4 |
| Client Matrix: Water | Prep Batch: 460-427170 | Lab File ID: U334019.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 237 mL |
| Analysis Date: 04/01/2017 0428 | | Final Weight/Volume: 2 mL |
| Prep Date: 03/30/2017 1252 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|--------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Phenanthrene | 88 | 85 | 70 - 117 | 3 | 30 | | |
| Phenol | 29 | 29 | 16 - 43 | 0 | 30 | | |
| Pyrene | 89 | 81 | 63 - 129 | 10 | 30 | | |

| Surrogate | MS % Rec | MSD % Rec | Acceptance Limits |
|-----------------------------|----------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 86 | 80 | 26 - 139 |
| 2-Fluorobiphenyl | 89 | 90 | 45 - 107 |
| 2-Fluorophenol (Surr) | 37 | 40 | 25 - 58 |
| Nitrobenzene-d5 (Surr) | 82 | 87 | 51 - 108 |
| Phenol-d5 (Surr) | 25 | 26 | 14 - 39 |
| Terphenyl-d14 (Surr) | 85 | 78 | 40 - 148 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427381

**Method: 8270D
Preparation: 3546**

Lab Sample ID: MB 460-427381/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/03/2017 1349
 Prep Date: 03/31/2017 0929
 Leach Date: N/A

Analysis Batch: 460-427788
 Prep Batch: 460-427381
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CBNAMS11
 Lab File ID: z4323073.D
 Initial Weight/Volume: 15.0000 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

| Analyte | Result | Qual | MDL | RL |
|------------------------------|--------|------|-----|-----|
| 1,1'-Biphenyl | 330 | U | 28 | 330 |
| 1,2,4,5-Tetrachlorobenzene | 330 | U | 25 | 330 |
| 2,2'-oxybis[1-chloropropane] | 330 | U | 14 | 330 |
| 2,3,4,6-Tetrachlorophenol | 330 | U | 31 | 330 |
| 2,4,5-Trichlorophenol | 330 | U | 33 | 330 |
| 2,4,6-Trichlorophenol | 130 | U | 9.4 | 130 |
| 2,4-Dichlorophenol | 130 | U | 7.8 | 130 |
| 2,4-Dimethylphenol | 330 | U | 73 | 330 |
| 2,4-Dinitrophenol | 270 | U | 250 | 270 |
| 2,4-Dinitrotoluene | 67 | U | 13 | 67 |
| 2,6-Dinitrotoluene | 67 | U | 18 | 67 |
| 2-Chloronaphthalene | 330 | U | 7.5 | 330 |
| 2-Chlorophenol | 330 | U | 8.4 | 330 |
| 2-Methylnaphthalene | 330 | U | 7.3 | 330 |
| 2-Methylphenol | 330 | U | 14 | 330 |
| 2-Nitroaniline | 330 | U | 11 | 330 |
| 2-Nitrophenol | 330 | U | 11 | 330 |
| 3,3'-Dichlorobenzidine | 130 | U | 37 | 130 |
| 3-Nitroaniline | 330 | U | 9.8 | 330 |
| 4,6-Dinitro-2-methylphenol | 270 | U | 88 | 270 |
| 4-Bromophenyl phenyl ether | 330 | U | 10 | 330 |
| 4-Chloro-3-methylphenol | 330 | U | 14 | 330 |
| 4-Chloroaniline | 330 | U | 8.5 | 330 |
| 4-Chlorophenyl phenyl ether | 330 | U | 9.9 | 330 |
| 4-Methylphenol | 330 | U | 9.0 | 330 |
| 4-Nitroaniline | 330 | U | 13 | 330 |
| 4-Nitrophenol | 670 | U | 160 | 670 |
| Acenaphthene | 330 | U | 8.0 | 330 |
| Acenaphthylene | 330 | U | 8.5 | 330 |
| Acetophenone | 330 | U | 7.2 | 330 |
| Anthracene | 330 | U | 31 | 330 |
| Atrazine | 130 | U | 15 | 130 |
| Benzaldehyde | 330 | U | 25 | 330 |
| Benzo[a]anthracene | 33 | U | 28 | 33 |
| Benzo[a]pyrene | 33 | U | 10 | 33 |
| Benzo[b]fluoranthene | 33 | U | 13 | 33 |
| Benzo[g,h,i]perylene | 330 | U | 19 | 330 |
| Benzo[k]fluoranthene | 33 | U | 14 | 33 |
| Bis(2-chloroethoxy)methane | 330 | U | 10 | 330 |
| Bis(2-chloroethyl)ether | 33 | U | 7.8 | 33 |
| Bis(2-ethylhexyl) phthalate | 330 | U | 13 | 330 |
| Butyl benzyl phthalate | 330 | U | 10 | 330 |
| Caprolactam | 330 | U | 24 | 330 |
| Carbazole | 330 | U | 8.2 | 330 |
| Chrysene | 330 | U | 9.0 | 330 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427381

**Method: 8270D
Preparation: 3546**

| | | |
|----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: MB 460-427381/1-A | Analysis Batch: 460-427788 | Instrument ID: CBNAMS11 |
| Client Matrix: Solid | Prep Batch: 460-427381 | Lab File ID: z4323073.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 04/03/2017 1349 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|-----|-----|
| Dibenz(a,h)anthracene | 33 | U | 17 | 33 |
| Dibenzofuran | 330 | U | 10 | 330 |
| Diethyl phthalate | 330 | U | 9.4 | 330 |
| Dimethyl phthalate | 330 | U | 9.6 | 330 |
| Di-n-butyl phthalate | 330 | U | 9.9 | 330 |
| Di-n-octyl phthalate | 330 | U | 17 | 330 |
| Fluoranthene | 330 | U | 9.8 | 330 |
| Fluorene | 330 | U | 7.2 | 330 |
| Hexachlorobenzene | 33 | U | 13 | 33 |
| Hexachlorobutadiene | 67 | U | 9.3 | 67 |
| Hexachlorocyclopentadiene | 330 | U | 21 | 330 |
| Hexachloroethane | 33 | U | 12 | 33 |
| Indeno[1,2,3-cd]pyrene | 33 | U | 22 | 33 |
| Isophorone | 130 | U | 7.1 | 130 |
| Naphthalene | 330 | U | 8.4 | 330 |
| Nitrobenzene | 33 | U | 10 | 33 |
| N-Nitrosodi-n-propylamine | 33 | U | 11 | 33 |
| N-Nitrosodiphenylamine | 330 | U | 30 | 330 |
| Pentachlorophenol | 270 | U | 40 | 270 |
| Phenanthrene | 330 | U | 8.8 | 330 |
| Phenol | 330 | U | 11 | 330 |
| Pyrene | 330 | U | 15 | 330 |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 86 | 10 - 103 |
| 2-Fluorobiphenyl | 82 | 38 - 95 |
| 2-Fluorophenol (Surr) | 79 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 83 | 37 - 94 |
| Phenol-d5 (Surr) | 83 | 32 - 91 |
| Terphenyl-d14 (Surr) | 102 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample - Batch: 460-427381

Method: 8270D
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-427381/3-A | Analysis Batch: 460-427556 | Instrument ID: CBNAMS5 |
| Client Matrix: Solid | Prep Batch: 460-427381 | Lab File ID: x24219.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 04/01/2017 0452 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|--------------|--------------|--------|--------|----------|------|
| Atrazine | 6670 | 6270 | 94 | 62 - 137 | |
| Benzaldehyde | 6670 | 5660 | 85 | 52 - 113 | |
| Caprolactam | 6670 | 6970 | 105 | 53 - 148 | |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 93 | 10 - 103 |
| 2-Fluorobiphenyl | 101 | 38 - 95 |
| 2-Fluorophenol (Surr) | 89 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 103 | 37 - 94 |
| Phenol-d5 (Surr) | 88 | 32 - 91 |
| Terphenyl-d14 (Surr) | 115 | 24 - 109 |

Lab Control Sample - Batch: 460-427381

Method: 8270D
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-427381/2-A | Analysis Batch: 460-427788 | Instrument ID: CBNAMS11 |
| Client Matrix: Solid | Prep Batch: 460-427381 | Lab File ID: z4323074.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 04/03/2017 1411 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------------|--------------|--------|--------|----------|------|
| 1,1'-Biphenyl | 3330 | 3050 | 92 | 64 - 108 | |
| 1,2,4,5-Tetrachlorobenzene | 3330 | 3120 | 94 | 57 - 112 | |
| 2,2'-oxybis[1-chloropropane] | 3330 | 2310 | 69 | 39 - 122 | |
| 2,3,4,6-Tetrachlorophenol | 3330 | 2970 | 89 | 60 - 114 | |
| 2,4,5-Trichlorophenol | 3330 | 3050 | 92 | 60 - 106 | |
| 2,4,6-Trichlorophenol | 3330 | 3210 | 96 | 62 - 110 | |
| 2,4-Dichlorophenol | 3330 | 2800 | 84 | 61 - 103 | |
| 2,4-Dimethylphenol | 3330 | 2970 | 89 | 63 - 101 | |
| 2,4-Dinitrophenol | 6670 | 4900 | 74 | 56 - 122 | |
| 2,4-Dinitrotoluene | 3330 | 3260 | 98 | 66 - 122 | |
| 2,6-Dinitrotoluene | 3330 | 3290 | 99 | 70 - 114 | |
| 2-Chloronaphthalene | 3330 | 3020 | 91 | 63 - 107 | |
| 2-Chlorophenol | 3330 | 2770 | 83 | 62 - 97 | |
| 2-Methylnaphthalene | 3330 | 3030 | 91 | 65 - 104 | |
| 2-Methylphenol | 3330 | 2810 | 84 | 61 - 103 | |
| 2-Nitroaniline | 3330 | 2690 | 81 | 57 - 114 | |
| 2-Nitrophenol | 3330 | 3030 | 91 | 65 - 104 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample - Batch: 460-427381

Method: 8270D
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-427381/2-A | Analysis Batch: 460-427788 | Instrument ID: CBNAMS11 |
| Client Matrix: Solid | Prep Batch: 460-427381 | Lab File ID: z4323074.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 04/03/2017 1411 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------------------------|--------------|--------|--------|----------|------|
| 3,3'-Dichlorobenzidine | 3330 | 1780 | 53 | 18 - 88 | |
| 3-Nitroaniline | 3330 | 1760 | 53 | 30 - 94 | |
| 4,6-Dinitro-2-methylphenol | 6670 | 5900 | 88 | 67 - 120 | |
| 4-Bromophenyl phenyl ether | 3330 | 3330 | 100 | 59 - 122 | |
| 4-Chloro-3-methylphenol | 3330 | 3020 | 91 | 62 - 111 | |
| 4-Chloroaniline | 3330 | 1580 | 47 | 18 - 94 | |
| 4-Chlorophenyl phenyl ether | 3330 | 3070 | 92 | 66 - 110 | |
| 4-Methylphenol | 3330 | 2810 | 84 | 61 - 105 | |
| 4-Nitroaniline | 3330 | 2490 | 75 | 49 - 118 | |
| 4-Nitrophenol | 6670 | 5400 | 81 | 43 - 141 | |
| Acenaphthene | 3330 | 2870 | 86 | 62 - 108 | |
| Acenaphthylene | 3330 | 3080 | 93 | 67 - 107 | |
| Acetophenone | 3330 | 2900 | 87 | 60 - 109 | |
| Anthracene | 3330 | 3080 | 92 | 69 - 111 | |
| Benzo[a]anthracene | 3330 | 3130 | 94 | 68 - 110 | |
| Benzo[a]pyrene | 3330 | 3380 | 101 | 72 - 115 | |
| Benzo[b]fluoranthene | 3330 | 3340 | 100 | 69 - 119 | |
| Benzo[g,h,i]perylene | 3330 | 3350 | 101 | 54 - 128 | |
| Benzo[k]fluoranthene | 3330 | 3220 | 97 | 70 - 115 | |
| Bis(2-chloroethoxy)methane | 3330 | 2890 | 87 | 65 - 106 | |
| Bis(2-chloroethyl)ether | 3330 | 2960 | 89 | 64 - 105 | |
| Bis(2-ethylhexyl) phthalate | 3330 | 3140 | 94 | 63 - 125 | |
| Butyl benzyl phthalate | 3330 | 3260 | 98 | 65 - 125 | |
| Carbazole | 3330 | 2840 | 85 | 66 - 115 | |
| Chrysene | 3330 | 3120 | 94 | 70 - 111 | |
| Dibenz(a,h)anthracene | 3330 | 3420 | 103 | 60 - 130 | |
| Dibenzofuran | 3330 | 2990 | 90 | 67 - 107 | |
| Diethyl phthalate | 3330 | 3010 | 90 | 66 - 117 | |
| Dimethyl phthalate | 3330 | 3150 | 94 | 68 - 112 | |
| Di-n-butyl phthalate | 3330 | 3070 | 92 | 67 - 119 | |
| Di-n-octyl phthalate | 3330 | 3170 | 95 | 57 - 138 | |
| Fluoranthene | 3330 | 2910 | 87 | 64 - 114 | |
| Fluorene | 3330 | 2940 | 88 | 66 - 110 | |
| Hexachlorobenzene | 3330 | 3540 | 106 | 57 - 128 | |
| Hexachlorobutadiene | 3330 | 3110 | 93 | 60 - 108 | |
| Hexachlorocyclopentadiene | 3330 | 3250 | 97 | 50 - 129 | |
| Hexachloroethane | 3330 | 2800 | 84 | 63 - 99 | |
| Indeno[1,2,3-cd]pyrene | 3330 | 3450 | 104 | 53 - 137 | |
| Isophorone | 3330 | 3010 | 90 | 68 - 111 | |
| Naphthalene | 3330 | 2900 | 87 | 65 - 102 | |
| Nitrobenzene | 3330 | 2730 | 82 | 66 - 108 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample - Batch: 460-427381

**Method: 8270D
Preparation: 3546**

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-427381/2-A | Analysis Batch: 460-427788 | Instrument ID: CBNAMS11 |
| Client Matrix: Solid | Prep Batch: 460-427381 | Lab File ID: z4323074.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 04/03/2017 1411 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------------------------|--------------|--------|--------|-------------------|------|
| N-Nitrosodi-n-propylamine | 3330 | 2920 | 88 | 63 - 117 | |
| N-Nitrosodiphenylamine | 3330 | 3180 | 95 | 65 - 114 | |
| Pentachlorophenol | 6670 | 5470 | 82 | 56 - 116 | |
| Phenanthrene | 3330 | 3060 | 92 | 68 - 111 | |
| Phenol | 3330 | 2950 | 88 | 58 - 103 | |
| Pyrene | 3330 | 3230 | 97 | 64 - 121 | |
| <hr/> | | | | | |
| Surrogate | | | % Rec | Acceptance Limits | |
| 2,4,6-Tribromophenol (Surr) | | | 103 | 10 - 103 | |
| 2-Fluorobiphenyl | | | 87 | 38 - 95 | |
| 2-Fluorophenol (Surr) | | | 79 | 25 - 92 | |
| Nitrobenzene-d5 (Surr) | | | 83 | 37 - 94 | |
| Phenol-d5 (Surr) | | | 82 | 32 - 91 | |
| Terphenyl-d14 (Surr) | | | 97 | 24 - 109 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427381**

**Method: 8270D
Preparation: 3546**

| | | |
|---------------------------------------|----------------------------|----------------------------------|
| MS Lab Sample ID: 460-130311-E-1-A MS | Analysis Batch: 460-427556 | Instrument ID: CBNAMS5 |
| Client Matrix: Solid | Prep Batch: 460-427381 | Lab File ID: x24221.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0278 g |
| Analysis Date: 04/01/2017 0539 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| | | |
|---|----------------------------|----------------------------------|
| MSD Lab Sample ID: 460-130311-E-1-B MSD | Analysis Batch: 460-427556 | Instrument ID: CBNAMS5 |
| Client Matrix: Solid | Prep Batch: 460-427381 | Lab File ID: x24222.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0247 g |
| Analysis Date: 04/01/2017 0603 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| 1,1'-Biphenyl | 83 | 83 | 64 - 108 | 0 | 30 | | |
| 1,2,4,5-Tetrachlorobenzene | 89 | 87 | 57 - 112 | 2 | 30 | | |
| 2,2'-oxybis[1-chloropropane] | 68 | 67 | 39 - 122 | 2 | 30 | | |
| 2,3,4,6-Tetrachlorophenol | 68 | 68 | 60 - 114 | 1 | 30 | | |
| 2,4,5-Trichlorophenol | 76 | 75 | 60 - 106 | 1 | 30 | | |
| 2,4,6-Trichlorophenol | 79 | 79 | 62 - 110 | 0 | 30 | | |
| 2,4-Dichlorophenol | 72 | 72 | 61 - 103 | 1 | 30 | | |
| 2,4-Dimethylphenol | 72 | 71 | 63 - 101 | 2 | 30 | | |
| 2,4-Dinitrophenol | 39 | 52 | 56 - 122 | 28 | 30 | * | * |
| 2,4-Dinitrotoluene | 63 | 63 | 66 - 122 | 1 | 30 | * | * |
| 2,6-Dinitrotoluene | 73 | 73 | 70 - 114 | 1 | 30 | | |
| 2-Chloronaphthalene | 81 | 81 | 63 - 107 | 0 | 30 | | |
| 2-Chlorophenol | 67 | 65 | 62 - 97 | 3 | 30 | | |
| 2-Methylnaphthalene | 74 | 72 | 65 - 104 | 3 | 30 | | |
| 2-Methylphenol | 65 | 65 | 61 - 103 | 1 | 30 | | |
| 2-Nitroaniline | 70 | 70 | 57 - 114 | 1 | 30 | | |
| 2-Nitrophenol | 76 | 74 | 65 - 104 | 2 | 30 | | |
| 3,3'-Dichlorobenzidine | 47 | 52 | 18 - 88 | 11 | 30 | | |
| 3-Nitroaniline | 44 | 48 | 30 - 94 | 7 | 30 | | |
| 4,6-Dinitro-2-methylphenol | 65 | 75 | 67 - 120 | 14 | 30 | * | |
| 4-Bromophenyl phenyl ether | 88 | 87 | 59 - 122 | 1 | 30 | | |
| 4-Chloro-3-methylphenol | 67 | 65 | 62 - 111 | 3 | 30 | | |
| 4-Chloroaniline | 33 | 39 | 18 - 94 | 16 | 30 | | |
| 4-Chlorophenyl phenyl ether | 74 | 73 | 66 - 110 | 1 | 30 | | |
| 4-Methylphenol | 65 | 64 | 61 - 105 | 1 | 30 | | |
| 4-Nitroaniline | 55 | 55 | 49 - 118 | 1 | 30 | | |
| 4-Nitrophenol | 57 | 56 | 43 - 141 | 1 | 30 | | |
| Acenaphthene | 76 | 77 | 62 - 108 | 1 | 30 | | |
| Acenaphthylene | 79 | 78 | 67 - 107 | 1 | 30 | | |
| Acetophenone | 66 | 65 | 60 - 109 | 2 | 30 | | |
| Anthracene | 82 | 80 | 69 - 111 | 2 | 30 | | |
| Atrazine | 78 | 80 | 62 - 137 | 2 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427381**

**Method: 8270D
Preparation: 3546**

| | | |
|---------------------------------------|----------------------------|----------------------------------|
| MS Lab Sample ID: 460-130311-E-1-A MS | Analysis Batch: 460-427556 | Instrument ID: CBNAMS5 |
| Client Matrix: Solid | Prep Batch: 460-427381 | Lab File ID: x24221.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0278 g |
| Analysis Date: 04/01/2017 0539 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| | | |
|---|----------------------------|----------------------------------|
| MSD Lab Sample ID: 460-130311-E-1-B MSD | Analysis Batch: 460-427556 | Instrument ID: CBNAMS5 |
| Client Matrix: Solid | Prep Batch: 460-427381 | Lab File ID: x24222.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0247 g |
| Analysis Date: 04/01/2017 0603 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|-----------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Benzaldehyde | 61 | 60 | 52 - 113 | 1 | 30 | | |
| Benzo[a]anthracene | 78 | 76 | 68 - 110 | 2 | 30 | | |
| Benzo[a]pyrene | 87 | 86 | 72 - 115 | 0 | 30 | | |
| Benzo[b]fluoranthene | 85 | 85 | 69 - 119 | 0 | 30 | | |
| Benzo[g,h,i]perylene | 92 | 91 | 54 - 128 | 2 | 30 | | |
| Benzo[k]fluoranthene | 79 | 75 | 70 - 115 | 5 | 30 | | |
| Bis(2-chloroethoxy)methane | 73 | 72 | 65 - 106 | 2 | 30 | | |
| Bis(2-chloroethyl)ether | 67 | 67 | 64 - 105 | 0 | 30 | | |
| Bis(2-ethylhexyl) phthalate | 70 | 69 | 63 - 125 | 2 | 30 | | |
| Butyl benzyl phthalate | 72 | 72 | 65 - 125 | 0 | 30 | | |
| Caprolactam | 58 | 60 | 53 - 148 | 2 | 30 | | |
| Carbazole | 70 | 68 | 66 - 115 | 2 | 30 | | |
| Chrysene | 80 | 79 | 70 - 111 | 1 | 30 | | |
| Dibenz(a,h)anthracene | 95 | 94 | 60 - 130 | 0 | 30 | | |
| Dibenzofuran | 74 | 74 | 67 - 107 | 0 | 30 | | |
| Diethyl phthalate | 66 | 64 | 66 - 117 | 3 | 30 | | * |
| Dimethyl phthalate | 71 | 70 | 68 - 112 | 1 | 30 | | |
| Di-n-butyl phthalate | 70 | 67 | 67 - 119 | 3 | 30 | | |
| Di-n-octyl phthalate | 63 | 62 | 57 - 138 | 1 | 30 | | |
| Fluoranthene | 71 | 69 | 64 - 114 | 2 | 30 | | |
| Fluorene | 72 | 71 | 66 - 110 | 1 | 30 | | |
| Hexachlorobenzene | 90 | 87 | 57 - 128 | 3 | 30 | | |
| Hexachlorobutadiene | 80 | 78 | 60 - 108 | 2 | 30 | | |
| Hexachlorocyclopentadiene | 98 | 99 | 50 - 129 | 1 | 30 | | |
| Hexachloroethane | 70 | 69 | 63 - 99 | 1 | 30 | | |
| Indeno[1,2,3-cd]pyrene | 95 | 92 | 53 - 137 | 3 | 30 | | |
| Isophorone | 74 | 72 | 68 - 111 | 2 | 30 | | |
| Naphthalene | 75 | 74 | 65 - 102 | 2 | 30 | | |
| Nitrobenzene | 75 | 74 | 66 - 108 | 1 | 30 | | |
| N-Nitrosodi-n-propylamine | 69 | 67 | 63 - 117 | 3 | 30 | | |
| N-Nitrosodiphenylamine | 85 | 84 | 65 - 114 | 1 | 30 | | |
| Pentachlorophenol | 65 | 67 | 56 - 116 | 3 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427381**

**Method: 8270D
Preparation: 3546**

| | | |
|---------------------------------------|----------------------------|----------------------------------|
| MS Lab Sample ID: 460-130311-E-1-A MS | Analysis Batch: 460-427556 | Instrument ID: CBNAMS5 |
| Client Matrix: Solid | Prep Batch: 460-427381 | Lab File ID: x24221.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0278 g |
| Analysis Date: 04/01/2017 0539 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| | | |
|---|----------------------------|----------------------------------|
| MSD Lab Sample ID: 460-130311-E-1-B MSD | Analysis Batch: 460-427556 | Instrument ID: CBNAMS5 |
| Client Matrix: Solid | Prep Batch: 460-427381 | Lab File ID: x24222.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0247 g |
| Analysis Date: 04/01/2017 0603 | | Final Weight/Volume: 1 mL |
| Prep Date: 03/31/2017 0929 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|--------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Phenanthrene | 82 | 78 | 68 - 111 | 4 | 30 | | |
| Phenol | 65 | 64 | 58 - 103 | 1 | 30 | | |
| Pyrene | 79 | 78 | 64 - 121 | 1 | 30 | | |

| Surrogate | MS % Rec | MSD % Rec | Acceptance Limits |
|-----------------------------|----------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 67 | 70 | 10 - 103 |
| 2-Fluorobiphenyl | 79 | 83 | 38 - 95 |
| 2-Fluorophenol (Surr) | 63 | 66 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 73 | 75 | 37 - 94 |
| Phenol-d5 (Surr) | 64 | 67 | 32 - 91 |
| Terphenyl-d14 (Surr) | 78 | 79 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427111

**Method: 8081B
Preparation: 3510C**

Lab Sample ID: MB 460-427111/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/31/2017 0925
 Prep Date: 03/30/2017 0923
 Leach Date: N/A

Analysis Batch: 460-427383
 Prep Batch: 460-427111
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CPESTGC5
 Lab File ID: 5F008409.D
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|-----------------------|--------|------|--------|-------|
| 4,4'-DDD | 0.020 | U | 0.0050 | 0.020 |
| 4,4'-DDE | 0.020 | U | 0.0040 | 0.020 |
| 4,4'-DDT | 0.020 | U | 0.0040 | 0.020 |
| Aldrin | 0.020 | U | 0.0040 | 0.020 |
| alpha-BHC | 0.020 | U | 0.0060 | 0.020 |
| beta-BHC | 0.020 | U | 0.0050 | 0.020 |
| Chlordane (technical) | 0.50 | U | 0.13 | 0.50 |
| delta-BHC | 0.020 | U | 0.0060 | 0.020 |
| Dieldrin | 0.020 | U | 0.0040 | 0.020 |
| Endosulfan I | 0.020 | U | 0.0050 | 0.020 |
| Endosulfan II | 0.020 | U | 0.0040 | 0.020 |
| Endosulfan sulfate | 0.020 | U | 0.0050 | 0.020 |
| Endrin | 0.020 | U | 0.0040 | 0.020 |
| Endrin aldehyde | 0.020 | U | 0.0040 | 0.020 |
| Endrin ketone | 0.020 | U | 0.0040 | 0.020 |
| gamma-BHC (Lindane) | 0.020 | U | 0.0040 | 0.020 |
| Heptachlor | 0.020 | U | 0.0040 | 0.020 |
| Heptachlor epoxide | 0.020 | U | 0.0040 | 0.020 |
| Methoxychlor | 0.020 | U | 0.0040 | 0.020 |
| Toxaphene | 0.50 | U | 0.060 | 0.50 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 111 | 10 - 150 |
| Tetrachloro-m-xylene | 85 | 16 - 150 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 108 | 10 - 150 |
| Tetrachloro-m-xylene | 83 | 16 - 150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-427111

Method: 8081B

Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-427111/2-A | Analysis Batch: 460-427383 | Instrument ID: CPESTGC5 |
| Client Matrix: Water | Prep Batch: 460-427111 | Lab File ID: 5F008410.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/31/2017 0938 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 0923 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-427111/3-A | Analysis Batch: 460-427383 | Instrument ID: CPESTGC5 |
| Client Matrix: Water | Prep Batch: 460-427111 | Lab File ID: 5F008411.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/31/2017 0951 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 0923 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------|-----------|------------|-------------------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 4,4'-DDD | 110 | 103 | 66 - 150 | 7 | 30 | | |
| 4,4'-DDE | 106 | 99 | 67 - 150 | 6 | 30 | | |
| 4,4'-DDT | 97 | 89 | 62 - 150 | 9 | 30 | | |
| Aldrin | 100 | 93 | 48 - 144 | 7 | 30 | | |
| alpha-BHC | 106 | 97 | 68 - 150 | 9 | 30 | | |
| beta-BHC | 109 | 99 | 71 - 150 | 9 | 30 | | |
| delta-BHC | 100 | 92 | 58 - 150 | 8 | 30 | | |
| Dieldrin | 115 | 108 | 68 - 150 | 6 | 30 | | |
| Endosulfan I | 115 | 108 | 68 - 150 | 6 | 30 | | |
| Endosulfan II | 118 | 109 | 66 - 150 | 8 | 30 | | |
| Endosulfan sulfate | 98 | 93 | 64 - 150 | 6 | 30 | | |
| Endrin | 110 | 103 | 61 - 150 | 6 | 30 | | |
| Endrin aldehyde | 112 | 104 | 70 - 150 | 8 | 30 | | |
| Endrin ketone | 129 | 122 | 66 - 150 | 6 | 30 | | |
| gamma-BHC (Lindane) | 106 | 97 | 67 - 150 | 9 | 30 | | |
| Heptachlor | 100 | 93 | 53 - 145 | 8 | 30 | | |
| Heptachlor epoxide | 109 | 103 | 66 - 150 | 6 | 30 | | |
| Methoxychlor | 97 | 92 | 62 - 150 | 5 | 30 | | |
| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits | | | | |
| DCB Decachlorobiphenyl | 103 | 96 | 10 - 150 | | | | |
| Tetrachloro-m-xylene | 85 | 75 | 16 - 150 | | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-427111

Method: 8081B

Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-427111/2-A | Analysis Batch: 460-427383 | Instrument ID: CPESTGC5 |
| Client Matrix: Water | Prep Batch: 460-427111 | Lab File ID: 5F008410.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/31/2017 0938 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 0923 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-427111/3-A | Analysis Batch: 460-427383 | Instrument ID: CPESTGC5 |
| Client Matrix: Water | Prep Batch: 460-427111 | Lab File ID: 5F008411.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/31/2017 0951 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 0923 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------|-----------|------------|-------------------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 4,4'-DDD | 87 | 83 | 66 - 150 | 5 | 30 | | |
| 4,4'-DDE | 85 | 75 | 67 - 150 | 12 | 30 | | |
| 4,4'-DDT | 85 | 80 | 62 - 150 | 6 | 30 | | |
| Aldrin | 98 | 88 | 48 - 144 | 12 | 30 | | |
| alpha-BHC | 104 | 92 | 68 - 150 | 12 | 30 | | |
| beta-BHC | 108 | 96 | 71 - 150 | 12 | 30 | | |
| delta-BHC | 99 | 88 | 58 - 150 | 11 | 30 | | |
| Dieldrin | 103 | 92 | 68 - 150 | 12 | 30 | | |
| Endosulfan I | 111 | 98 | 68 - 150 | 12 | 30 | | |
| Endosulfan II | 104 | 97 | 66 - 150 | 7 | 30 | | |
| Endosulfan sulfate | 92 | 85 | 64 - 150 | 8 | 30 | | |
| Endrin | 96 | 87 | 61 - 150 | 10 | 30 | | |
| Endrin aldehyde | 108 | 98 | 70 - 150 | 9 | 30 | | |
| Endrin ketone | 112 | 104 | 66 - 150 | 7 | 30 | | |
| gamma-BHC (Lindane) | 103 | 91 | 67 - 150 | 11 | 30 | | |
| Heptachlor | 99 | 88 | 53 - 145 | 11 | 30 | | |
| Heptachlor epoxide | 105 | 93 | 66 - 150 | 12 | 30 | | |
| Methoxychlor | 79 | 75 | 62 - 150 | 5 | 30 | | |
| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits | | | | |
| DCB Decachlorobiphenyl | 101 | 89 | 10 - 150 | | | | |
| Tetrachloro-m-xylene | 83 | 74 | 16 - 150 | | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427407

**Method: 8081B
Preparation: 3546**

Lab Sample ID: MB 460-427407/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/02/2017 0852
 Prep Date: 03/31/2017 1118
 Leach Date: N/A

Analysis Batch: 460-427712
 Prep Batch: 460-427407
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CPESTGC4
 Lab File ID: P4202984.D
 Initial Weight/Volume: 15.0000 g
 Final Weight/Volume: 10 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|-----------------------|--------|------|------|-----|
| 4,4'-DDD | 6.7 | U | 0.88 | 6.7 |
| 4,4'-DDE | 6.7 | U | 0.97 | 6.7 |
| 4,4'-DDT | 6.7 | U | 0.69 | 6.7 |
| Aldrin | 6.7 | U | 0.81 | 6.7 |
| alpha-BHC | 2.0 | U | 0.61 | 2.0 |
| beta-BHC | 2.0 | U | 0.65 | 2.0 |
| Chlordane (technical) | 67 | U | 30 | 67 |
| delta-BHC | 2.0 | U | 0.73 | 2.0 |
| Dieldrin | 2.0 | U | 0.87 | 2.0 |
| Endosulfan I | 6.7 | U | 0.93 | 6.7 |
| Endosulfan II | 6.7 | U | 1.1 | 6.7 |
| Endosulfan sulfate | 6.7 | U | 0.78 | 6.7 |
| Endrin | 6.7 | U | 0.85 | 6.7 |
| Endrin aldehyde | 6.7 | U | 0.83 | 6.7 |
| Endrin ketone | 6.7 | U | 0.93 | 6.7 |
| gamma-BHC (Lindane) | 2.0 | U | 0.60 | 2.0 |
| Heptachlor | 6.7 | U | 0.86 | 6.7 |
| Heptachlor epoxide | 6.7 | U | 1.3 | 6.7 |
| Methoxychlor | 6.7 | U | 1.4 | 6.7 |
| Toxaphene | 67 | U | 20 | 67 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 115 | 50 - 150 |
| Tetrachloro-m-xylene | 106 | 47 - 150 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 109 | 50 - 150 |
| Tetrachloro-m-xylene | 100 | 47 - 150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample - Batch: 460-427407

Method: 8081B
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-427407/2-A | Analysis Batch: 460-427712 | Instrument ID: CPESTGC4 |
| Client Matrix: Solid | Prep Batch: 460-427407 | Lab File ID: P4202985.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 04/02/2017 0904 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1118 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|--------|-------------------|------|
| 4,4'-DDD | 133 | 143 | 108 | 64 - 129 | |
| 4,4'-DDE | 133 | 142 | 107 | 65 - 129 | |
| 4,4'-DDT | 133 | 146 | 110 | 59 - 124 | |
| Aldrin | 133 | 154 | 115 | 66 - 127 | |
| alpha-BHC | 133 | 157 | 118 | 69 - 131 | |
| beta-BHC | 133 | 155 | 116 | 69 - 127 | |
| delta-BHC | 133 | 158 | 119 | 64 - 129 | |
| Dieldrin | 133 | 155 | 116 | 65 - 128 | |
| Endosulfan I | 133 | 158 | 118 | 66 - 126 | |
| Endosulfan II | 133 | 152 | 114 | 64 - 124 | |
| Endosulfan sulfate | 133 | 152 | 114 | 62 - 123 | |
| Endrin | 133 | 151 | 113 | 58 - 126 | |
| Endrin aldehyde | 133 | 155 | 116 | 69 - 131 | |
| Endrin ketone | 133 | 151 | 113 | 62 - 125 | |
| gamma-BHC (Lindane) | 133 | 152 | 114 | 67 - 126 | |
| Heptachlor | 133 | 149 | 112 | 63 - 125 | |
| Heptachlor epoxide | 133 | 151 | 113 | 64 - 125 | |
| Methoxychlor | 133 | 138 | 104 | 56 - 123 | |
| <hr/> | | | | | |
| Surrogate | | % Rec | | Acceptance Limits | |
| DCB Decachlorobiphenyl | | 123 | | 50 - 150 | |
| Tetrachloro-m-xylene | | 118 | | 47 - 150 | |

Lab Control Sample - Batch: 460-427407

Method: 8081B
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-427407/2-A | Analysis Batch: 460-427712 | Instrument ID: CPESTGC4 |
| Client Matrix: Solid | Prep Batch: 460-427407 | Lab File ID: P4202985.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 04/02/2017 0904 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1118 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|----------|------|
| 4,4'-DDD | 133 | 124 | 93 | 64 - 129 | |
| 4,4'-DDE | 133 | 127 | 95 | 65 - 129 | |
| 4,4'-DDT | 133 | 123 | 92 | 59 - 124 | |
| Aldrin | 133 | 129 | 97 | 66 - 127 | |
| alpha-BHC | 133 | 135 | 101 | 69 - 131 | |
| beta-BHC | 133 | 139 | 104 | 69 - 127 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample - Batch: 460-427407

**Method: 8081B
Preparation: 3546**

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-427407/2-A | Analysis Batch: 460-427712 | Instrument ID: CPESTGC4 |
| Client Matrix: Solid | Prep Batch: 460-427407 | Lab File ID: P4202985.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 04/02/2017 0904 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1118 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|--------|-------------------|------|
| delta-BHC | 133 | 136 | 102 | 64 - 129 | |
| Dieldrin | 133 | 133 | 100 | 65 - 128 | |
| Endosulfan I | 133 | 129 | 97 | 66 - 126 | |
| Endosulfan II | 133 | 133 | 100 | 64 - 124 | |
| Endosulfan sulfate | 133 | 125 | 93 | 62 - 123 | |
| Endrin | 133 | 125 | 94 | 58 - 126 | |
| Endrin aldehyde | 133 | 124 | 93 | 69 - 131 | |
| Endrin ketone | 133 | 134 | 100 | 62 - 125 | |
| gamma-BHC (Lindane) | 133 | 134 | 100 | 67 - 126 | |
| Heptachlor | 133 | 134 | 100 | 63 - 125 | |
| Heptachlor epoxide | 133 | 126 | 94 | 64 - 125 | |
| Methoxychlor | 133 | 129 | 96 | 56 - 123 | |
| | | | | | |
| Surrogate | | | % Rec | Acceptance Limits | |
| DCB Decachlorobiphenyl | | | 119 | 50 - 150 | |
| Tetrachloro-m-xylene | | | 114 | 47 - 150 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427407**

**Method: 8081B
Preparation: 3546**

| | | |
|--|----------------------------|----------------------------------|
| MS Lab Sample ID: 460-130588-D-12-D MS | Analysis Batch: 460-428039 | Instrument ID: CPESTGC4 |
| Client Matrix: Solid | Prep Batch: 460-427407 | Lab File ID: P4203106.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0253 g |
| Analysis Date: 04/04/2017 1125 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1118 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| | | |
|--|----------------------------|----------------------------------|
| MSD Lab Sample ID: 460-130588-D-12-E MSD | Analysis Batch: 460-428039 | Instrument ID: CPESTGC4 |
| Client Matrix: Solid | Prep Batch: 460-427407 | Lab File ID: P4203107.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0254 g |
| Analysis Date: 04/04/2017 1139 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1118 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------|--------|----------|-----------|-----|-----------|-------------------|----------|
| | MS | MSD | | | | | |
| 4,4'-DDD | 98 | 102 | 64 - 129 | 4 | 30 | | |
| 4,4'-DDE | 123 | 123 | 65 - 129 | 0 | 30 | | |
| 4,4'-DDT | 154 | 154 | 59 - 124 | 0 | 30 | * | * |
| Aldrin | 92 | 91 | 66 - 127 | 1 | 30 | | |
| alpha-BHC | 91 | 90 | 69 - 131 | 1 | 30 | | |
| beta-BHC | 90 | 88 | 69 - 127 | 2 | 30 | | |
| delta-BHC | 85 | 84 | 64 - 129 | 1 | 30 | | |
| Dieldrin | 94 | 94 | 65 - 128 | 0 | 30 | | |
| Endosulfan I | 88 | 89 | 66 - 126 | 1 | 30 | | |
| Endosulfan II | 62 | 60 | 64 - 124 | 2 | 30 | * | * |
| Endosulfan sulfate | 36 | 37 | 62 - 123 | 4 | 30 | * | * |
| Endrin | 94 | 94 | 58 - 126 | 1 | 30 | | |
| Endrin aldehyde | 32 | 33 | 69 - 131 | 1 | 30 | * | * |
| Endrin ketone | 51 | 53 | 62 - 125 | 3 | 30 | * | * |
| gamma-BHC (Lindane) | 88 | 86 | 67 - 126 | 2 | 30 | | |
| Heptachlor | 89 | 88 | 63 - 125 | 1 | 30 | | |
| Heptachlor epoxide | 91 | 90 | 64 - 125 | 0 | 30 | | |
| Methoxychlor | 86 | 86 | 56 - 123 | 0 | 30 | | |
| Surrogate | | MS % Rec | MSD % Rec | | | Acceptance Limits | |
| DCB Decachlorobiphenyl | | 119 | 118 | | | 50 - 150 | |
| Tetrachloro-m-xylene | | 92 | 92 | | | 47 - 150 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427407**

**Method: 8081B
Preparation: 3546**

MS Lab Sample ID: 460-130588-D-12-D MS Analysis Batch: 460-428039
 Client Matrix: Solid Prep Batch: 460-427407
 Dilution: 1.0 Leach Batch: N/A
 Analysis Date: 04/04/2017 1125
 Prep Date: 03/31/2017 1118
 Leach Date: N/A

Instrument ID: CPESTGC4
 Lab File ID: P4203106.D
 Initial Weight/Volume: 15.0253 g
 Final Weight/Volume: 10 mL
 Injection Volume: 1 uL
 Column ID: SECONDARY

MSD Lab Sample ID: 460-130588-D-12-E MSD Analysis Batch: 460-428039
 Client Matrix: Solid Prep Batch: 460-427407
 Dilution: 1.0 Leach Batch: N/A
 Analysis Date: 04/04/2017 1139
 Prep Date: 03/31/2017 1118
 Leach Date: N/A

Instrument ID: CPESTGC4
 Lab File ID: P4203107.D
 Initial Weight/Volume: 15.0254 g
 Final Weight/Volume: 10 mL
 Injection Volume: 1 uL
 Column ID: SECONDARY

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|---------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| 4,4'-DDD | 86 | 85 | 64 - 129 | 2 | 30 | | |
| 4,4'-DDE | 106 | 103 | 65 - 129 | 2 | 30 | | |
| 4,4'-DDT | 127 | 126 | 59 - 124 | 1 | 30 | * | * |
| Aldrin | 83 | 84 | 66 - 127 | 1 | 30 | | |
| alpha-BHC | 82 | 80 | 69 - 131 | 2 | 30 | | |
| beta-BHC | 81 | 82 | 69 - 127 | 1 | 30 | | |
| delta-BHC | 78 | 78 | 64 - 129 | 0 | 30 | | |
| Dieldrin | 89 | 86 | 65 - 128 | 3 | 30 | | |
| Endosulfan I | 83 | 81 | 66 - 126 | 3 | 30 | | |
| Endosulfan II | 60 | 60 | 64 - 124 | 0 | 30 | * | * |
| Endosulfan sulfate | 33 | 33 | 62 - 123 | 1 | 30 | * | * |
| Endrin | 91 | 92 | 58 - 126 | 1 | 30 | | |
| Endrin aldehyde | 32 | 33 | 69 - 131 | 1 | 30 | * | * |
| Endrin ketone | 41 | 38 | 62 - 125 | 7 | 30 | * | * |
| gamma-BHC (Lindane) | 82 | 82 | 67 - 126 | 0 | 30 | | |
| Heptachlor | 84 | 84 | 63 - 125 | 0 | 30 | | |
| Heptachlor epoxide | 83 | 83 | 64 - 125 | 0 | 30 | | |
| Methoxychlor | 81 | 82 | 56 - 123 | 1 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427110

**Method: 8082A
Preparation: 3510C**

Lab Sample ID: MB 460-427110/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/31/2017 1006
 Prep Date: 03/30/2017 0919
 Leach Date: N/A

Analysis Batch: 460-427385
 Prep Batch: 460-427110
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CPESTGC7
 Lab File ID: 7R002852.D
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|----------------------------------|--------|------|-------|------|
| Aroclor 1016 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1221 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1232 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1242 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1248 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1254 | 0.40 | U | 0.084 | 0.40 |
| Aroclor 1260 | 0.40 | U | 0.084 | 0.40 |
| Aroclor 1268 | 0.40 | U | 0.084 | 0.40 |
| Aroclor-1262 | 0.40 | U | 0.084 | 0.40 |
| Polychlorinated biphenyls, Total | 0.40 | U | 0.098 | 0.40 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 127 | 10 - 150 |
| Surrogate | % Rec | Acceptance Limits |
| DCB Decachlorobiphenyl | 116 | 10 - 150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427110 **Method: 8082A**
Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-427110/2-A | Analysis Batch: 460-427385 | Instrument ID: CPESTGC7 |
| Client Matrix: Water | Prep Batch: 460-427110 | Lab File ID: 7R002853.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/31/2017 1029 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 0919 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-427110/3-A | Analysis Batch: 460-427385 | Instrument ID: CPESTGC7 |
| Client Matrix: Water | Prep Batch: 460-427110 | Lab File ID: 7R002854.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/31/2017 1053 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 0919 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------|-----------|------|------------|-------------------|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Aroclor 1016 | 114 | 114 | 77 - 150 | 1 | 30 | | |
| Aroclor 1260 | 127 | 126 | 80 - 150 | 1 | 30 | | |
| Surrogate | LCS % Rec | | LCSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 113 | | 111 | | | 10 - 150 | |

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427110 **Method: 8082A**
Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-427110/2-A | Analysis Batch: 460-427385 | Instrument ID: CPESTGC7 |
| Client Matrix: Water | Prep Batch: 460-427110 | Lab File ID: 7R002853.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/31/2017 1029 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 0919 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-427110/3-A | Analysis Batch: 460-427385 | Instrument ID: CPESTGC7 |
| Client Matrix: Water | Prep Batch: 460-427110 | Lab File ID: 7R002854.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 03/31/2017 1053 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 03/30/2017 0919 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------|-----------|------|------------|-------------------|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Aroclor 1016 | 113 | 113 | 77 - 150 | 0 | 30 | | |
| Aroclor 1260 | 123 | 121 | 80 - 150 | 2 | 30 | | |
| Surrogate | LCS % Rec | | LCSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 108 | | 107 | | | 10 - 150 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427405

**Method: 8082A
Preparation: 3546**

Lab Sample ID: MB 460-427405/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/02/2017 0824
 Prep Date: 03/31/2017 1110
 Leach Date: N/A

Analysis Batch: 460-427683
 Prep Batch: 460-427405
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CPESTGC7
 Lab File ID: 7R002867.D
 Initial Weight/Volume: 15.0000 g
 Final Weight/Volume: 10 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|----------------------------------|--------|------|-----|----|
| Aroclor 1016 | 67 | U | 8.9 | 67 |
| Aroclor 1221 | 67 | U | 8.9 | 67 |
| Aroclor 1232 | 67 | U | 8.9 | 67 |
| Aroclor 1242 | 67 | U | 8.9 | 67 |
| Aroclor 1248 | 67 | U | 8.9 | 67 |
| Aroclor 1254 | 67 | U | 9.2 | 67 |
| Aroclor 1260 | 67 | U | 9.2 | 67 |
| Aroclor 1268 | 67 | U | 9.2 | 67 |
| Aroclor-1262 | 67 | U | 9.2 | 67 |
| Polychlorinated biphenyls, Total | 67 | U | 9.2 | 67 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 144 | 35 - 150 |
| Surrogate | % Rec | Acceptance Limits |
| DCB Decachlorobiphenyl | 144 | 35 - 150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample - Batch: 460-427405

**Method: 8082A
Preparation: 3546**

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-427405/2-A | Analysis Batch: 460-427683 | Instrument ID: CPESTGC7 |
| Client Matrix: Solid | Prep Batch: 460-427405 | Lab File ID: 7R002868.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 04/02/2017 0848 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1110 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|-------------------|----------|------|
| Aroclor 1016 | 333 | 435 | 131 | 77 - 150 | |
| Aroclor 1260 | 333 | 426 | 128 | 79 - 150 | |
| Surrogate | | % Rec | Acceptance Limits | | |
| DCB Decachlorobiphenyl | | 139 | 35 - 150 | | |

Lab Control Sample - Batch: 460-427405

**Method: 8082A
Preparation: 3546**

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-427405/2-A | Analysis Batch: 460-427683 | Instrument ID: CPESTGC7 |
| Client Matrix: Solid | Prep Batch: 460-427405 | Lab File ID: 7R002868.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 04/02/2017 0848 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1110 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|-------------------|----------|------|
| Aroclor 1016 | 333 | 414 | 124 | 77 - 150 | |
| Aroclor 1260 | 333 | 426 | 128 | 79 - 150 | |
| Surrogate | | % Rec | Acceptance Limits | | |
| DCB Decachlorobiphenyl | | 138 | 35 - 150 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427405**

**Method: 8082A
Preparation: 3546**

| | | |
|--|----------------------------|----------------------------------|
| MS Lab Sample ID: 460-130588-D-12-A MS | Analysis Batch: 460-427683 | Instrument ID: CPESTGC7 |
| Client Matrix: Solid | Prep Batch: 460-427405 | Lab File ID: 7R002871.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0253 g |
| Analysis Date: 04/02/2017 0958 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1110 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| | | |
|--|----------------------------|----------------------------------|
| MSD Lab Sample ID: 460-130588-D-12-B MSD | Analysis Batch: 460-427683 | Instrument ID: CPESTGC7 |
| Client Matrix: Solid | Prep Batch: 460-427405 | Lab File ID: 7R002872.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0254 g |
| Analysis Date: 04/02/2017 1022 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1110 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------|----------|-----|-----------|-------------------|-----------|---------|----------|
| | MS | MSD | | | | | |
| Aroclor 1016 | 123 | 126 | 77 - 150 | 2 | 30 | | |
| Aroclor 1260 | 123 | 129 | 79 - 150 | 5 | 30 | | |
| Surrogate | MS % Rec | | MSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 141 | | 146 | 35 - 150 | | | |

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427405**

**Method: 8082A
Preparation: 3546**

| | | |
|--|----------------------------|----------------------------------|
| MS Lab Sample ID: 460-130588-D-12-A MS | Analysis Batch: 460-427683 | Instrument ID: CPESTGC7 |
| Client Matrix: Solid | Prep Batch: 460-427405 | Lab File ID: 7R002871.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0253 g |
| Analysis Date: 04/02/2017 0958 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1110 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| | | |
|--|----------------------------|----------------------------------|
| MSD Lab Sample ID: 460-130588-D-12-B MSD | Analysis Batch: 460-427683 | Instrument ID: CPESTGC7 |
| Client Matrix: Solid | Prep Batch: 460-427405 | Lab File ID: 7R002872.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0254 g |
| Analysis Date: 04/02/2017 1022 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1110 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|--------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Aroclor 1016 | 123 | 125 | 77 - 150 | 2 | 30 | | |
| Aroclor 1260 | 120 | 126 | 79 - 150 | 4 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

LCS-Certified Reference Material - Batch: 460-427295

**Method: 6010C
Preparation: 3050B**

| | | |
|--|----------------------------|-------------------------------|
| Lab Sample ID: LCSSRM 460-427295/2- A | Analysis Batch: 460-427477 | Instrument ID: ICP4 |
| Client Matrix: Solid | Prep Batch: 460-427295 | Lab File ID: a427295.asc |
| Dilution: 4.0 | Leach Batch: N/A | Initial Weight/Volume: 1.02 g |
| Analysis Date: 03/31/2017 1254 | Units: mg/Kg | Final Weight/Volume: 50 mL |
| Prep Date: 03/30/2017 2335 | | |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|--------------|------|
| Aluminum | 8080 | 7898 | 97.7 | 49.4 - 151.0 | |
| Antimony | 88.2 | 39.98 | 45.3 | 2.2 - 197.3 | |
| Arsenic | 57.0 | 53.88 | 94.5 | 75.1 - 124.9 | |
| Barium | 110 | 112.8 | 102.6 | 82.4 - 118.2 | |
| Beryllium | 67.5 | 68.92 | 102.1 | 82.8 - 117.2 | |
| Cadmium | 77.8 | 78.16 | 100.5 | 82.8 - 117.2 | |
| Calcium | 6450 | 6229 | 96.6 | 82.2 - 117.7 | |
| Chromium | 65.0 | 64.65 | 99.5 | 79.1 - 121.1 | |
| Cobalt | 58.8 | 61.27 | 104.2 | 83.8 - 116.3 | |
| Copper | 56.4 | 55.73 | 98.8 | 80.5 - 119.7 | |
| Iron | 14700 | 14410 | 98.1 | 45.6 - 154.4 | |
| Lead | 85.6 | 86.47 | 101.0 | 82.0 - 118.0 | |
| Magnesium | 2710 | 2547 | 94.0 | 75.6 - 124.0 | |
| Manganese | 273 | 280.4 | 102.7 | 81.0 - 118.7 | |
| Nickel | 61.3 | 64.57 | 105.3 | 82.5 - 117.5 | |
| Potassium | 2420 | 2300 | 95.0 | 69.4 - 131.0 | |
| Selenium | 78.9 | 77.08 | 97.7 | 77.6 - 122.4 | |
| Silver | 54.2 | 51.24 | 94.5 | 74.7 - 125.3 | |
| Sodium | 914 | 857.8 | 93.9 | 71.6 - 128.0 | J |
| Thallium | 178 | 190.6 | 107.1 | 79.2 - 120.2 | |
| Vanadium | 56.3 | 54.90 | 97.5 | 77.1 - 122.9 | |
| Zinc | 198 | 197.8 | 99.9 | 82.3 - 117.2 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Matrix Spike - Batch: 460-427295

**Method: 6010C
Preparation: 3050B**

Lab Sample ID: 460-130542-E-1-C MS
 Client Matrix: Solid
 Dilution: 4.0
 Analysis Date: 03/31/2017 1309
 Prep Date: 03/30/2017 2335
 Leach Date: N/A

Analysis Batch: 460-427477
 Prep Batch: 460-427295
 Leach Batch: N/A
 Units: mg/Kg

Instrument ID: ICP4
 Lab File ID: a427295.asc
 Initial Weight/Volume: 1.25 g
 Final Weight/Volume: 50 mL

| Analyte | Sample | Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------|-------------|--------------|--------|--------|----------|------|
| Aluminum | 36.7 | | 169 | 403.4 | 217 | 75 - 125 | N |
| Antimony | 3.3 | U | 42.3 | 37.02 | 88 | 75 - 125 | |
| Arsenic | 2.4 | U | 169 | 165.8 | 98 | 75 - 125 | |
| Barium | 32.5 | U | 169 | 183.3 | 108 | 75 - 125 | |
| Beryllium | 0.33 | U | 4.23 | 4.46 | 106 | 75 - 125 | |
| Cadmium | 0.65 | U | 4.23 | 4.41 | 104 | 75 - 125 | |
| Calcium | 813 | U | 1690 | 1765 | 104 | 75 - 125 | |
| Chromium | 3.6 | | 16.9 | 19.14 | 92 | 75 - 125 | |
| Cobalt | 8.1 | U | 42.3 | 45.71 | 108 | 75 - 125 | |
| Copper | 39.8 | | 21.1 | 60.59 | 98 | 75 - 125 | |
| Iron | 299 | | 84.5 | 221.8 | -91 | 75 - 125 | N |
| Lead | 48.9 | | 42.3 | 81.40 | 77 | 75 - 125 | |
| Magnesium | 813 | U | 1690 | 1716 | 102 | 75 - 125 | |
| Manganese | 2.4 | U | 42.3 | 45.76 | 108 | 75 - 125 | |
| Nickel | 6.5 | U | 42.3 | 46.47 | 110 | 75 - 125 | |
| Potassium | 25.1 | J | 1690 | 1701 | 99 | 75 - 125 | |
| Selenium | 3.3 | U | 169 | 166.3 | 98 | 75 - 125 | |
| Silver | 2.5 | | 4.23 | 6.68 | 99 | 75 - 125 | |
| Sodium | 813 | U | 1690 | 1718 | 102 | 75 - 125 | |
| Thallium | 3.3 | U | 169 | 186.3 | 110 | 75 - 125 | |
| Vanadium | 8.1 | U | 42.3 | 44.19 | 105 | 75 - 125 | |
| Zinc | 4.9 | U | 42.3 | 44.82 | 106 | 75 - 125 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Duplicate - Batch: 460-427295

Method: 6010C
Preparation: 3050B

Lab Sample ID: 460-130542-E-1-B DU
Client Matrix: Solid
Dilution: 4.0
Analysis Date: 03/31/2017 1257
Prep Date: 03/30/2017 2335
Leach Date: N/A

Analysis Batch: 460-427477
Prep Batch: 460-427295
Leach Batch: N/A
Units: mg/Kg

Instrument ID: ICP4
Lab File ID: a427295.asc
Initial Weight/Volume: 1.25 g
Final Weight/Volume: 50 mL

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|-----------|--------------------|--------|-----|-------|------|
| Aluminum | 36.7 | 38.24 | 4 | 20 | |
| Antimony | 3.3 U | 3.4 | NC | 20 | U |
| Arsenic | 2.4 U | 2.5 | NC | 20 | U |
| Barium | 32.5 U | 33.8 | NC | 20 | U |
| Beryllium | 0.33 U | 0.34 | NC | 20 | U |
| Cadmium | 0.65 U | 0.68 | NC | 20 | U |
| Calcium | 813 U | 845 | NC | 20 | U |
| Chromium | 3.6 | 3.64 | 0.5 | 20 | |
| Cobalt | 8.1 U | 8.5 | NC | 20 | U |
| Copper | 39.8 | 41.42 | 4 | 20 | |
| Iron | 299 | 308.7 | 3 | 20 | |
| Lead | 48.9 | 50.09 | 2 | 20 | |
| Magnesium | 813 U | 845 | NC | 20 | U |
| Manganese | 2.4 U | 2.5 | NC | 20 | U |
| Nickel | 6.5 U | 6.8 | NC | 20 | U |
| Potassium | 25.1 J | 845 | NC | 20 | U |
| Selenium | 3.3 U | 3.4 | NC | 20 | U |
| Silver | 2.5 | 2.68 | 6 | 20 | |
| Sodium | 813 U | 845 | NC | 20 | U |
| Thallium | 3.3 U | 3.4 | NC | 20 | U |
| Vanadium | 8.1 U | 8.5 | NC | 20 | U |
| Zinc | 4.9 U | 5.1 | NC | 20 | U |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427296

**Method: 6010C
Preparation: 3050B**

| | | |
|-------------------------------------|----------------------------|-------------------------------|
| Lab Sample ID: MB 460-427296/1-A ^2 | Analysis Batch: 460-427491 | Instrument ID: ICP5 |
| Client Matrix: Solid | Prep Batch: 460-427296 | Lab File ID: 427292D1.asc |
| Dilution: 2.0 | Leach Batch: N/A | Initial Weight/Volume: 1.00 g |
| Analysis Date: 03/31/2017 1651 | Units: mg/Kg | Final Weight/Volume: 50 mL |
| Prep Date: 03/30/2017 2335 | | |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|-----------|--------|------|------|------|
| Aluminum | 20.0 | U | 10.3 | 20.0 |
| Antimony | 2.0 | U | 0.79 | 2.0 |
| Arsenic | 1.5 | U | 0.49 | 1.5 |
| Barium | 20.0 | U | 0.72 | 20.0 |
| Beryllium | 0.20 | U | 0.17 | 0.20 |
| Cadmium | 0.40 | U | 0.21 | 0.40 |
| Calcium | 500 | U | 29.6 | 500 |
| Chromium | 1.0 | U | 0.48 | 1.0 |
| Cobalt | 5.0 | U | 0.58 | 5.0 |
| Copper | 2.5 | U | 0.65 | 2.5 |
| Iron | 15.0 | U | 11.3 | 15.0 |
| Lead | 1.0 | U | 0.39 | 1.0 |
| Magnesium | 500 | U | 25.0 | 500 |
| Manganese | 1.5 | U | 0.53 | 1.5 |
| Nickel | 4.0 | U | 0.73 | 4.0 |
| Potassium | 500 | U | 15.2 | 500 |
| Selenium | 2.0 | U | 0.69 | 2.0 |
| Silver | 1.0 | U | 0.18 | 1.0 |
| Sodium | 500 | U | 33.9 | 500 |
| Thallium | 2.0 | U | 0.89 | 2.0 |
| Vanadium | 5.0 | U | 0.50 | 5.0 |
| Zinc | 3.0 | U | 0.73 | 3.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

LCS-Certified Reference Material - Batch: 460-427296

**Method: 6010C
Preparation: 3050B**

| | | |
|--|----------------------------|-------------------------------|
| Lab Sample ID: LCSSRM 460-427296/2- A | Analysis Batch: 460-427491 | Instrument ID: ICP5 |
| Client Matrix: Solid | Prep Batch: 460-427296 | Lab File ID: 427292D1.asc |
| Dilution: 4.0 | Leach Batch: N/A | Initial Weight/Volume: 1.02 g |
| Analysis Date: 03/31/2017 1655 | Units: mg/Kg | Final Weight/Volume: 50 mL |
| Prep Date: 03/30/2017 2335 | | |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|--------------|------|
| Aluminum | 8080 | 8325 | 103.0 | 49.4 - 151.0 | |
| Antimony | 88.2 | 45.43 | 51.5 | 2.2 - 197.3 | |
| Arsenic | 57.0 | 59.86 | 105.0 | 75.1 - 124.9 | |
| Barium | 110 | 121.4 | 110.4 | 82.4 - 118.2 | |
| Beryllium | 67.5 | 71.61 | 106.1 | 82.8 - 117.2 | |
| Cadmium | 77.8 | 83.27 | 107.0 | 82.8 - 117.2 | |
| Calcium | 6450 | 6661 | 103.3 | 82.2 - 117.7 | |
| Chromium | 65.0 | 71.04 | 109.3 | 79.1 - 121.1 | |
| Cobalt | 58.8 | 63.84 | 108.6 | 83.8 - 116.3 | |
| Copper | 56.4 | 57.08 | 101.2 | 80.5 - 119.7 | |
| Iron | 14700 | 15180 | 103.3 | 45.6 - 154.4 | |
| Lead | 85.6 | 94.92 | 110.9 | 82.0 - 118.0 | |
| Magnesium | 2710 | 2686 | 99.1 | 75.6 - 124.0 | |
| Manganese | 273 | 301.0 | 110.2 | 81.0 - 118.7 | |
| Nickel | 61.3 | 67.76 | 110.5 | 82.5 - 117.5 | |
| Potassium | 2420 | 2382 | 98.4 | 69.4 - 131.0 | |
| Selenium | 78.9 | 82.71 | 104.8 | 77.6 - 122.4 | |
| Silver | 54.2 | 53.45 | 98.6 | 74.7 - 125.3 | |
| Sodium | 914 | 904.9 | 99.0 | 71.6 - 128.0 | J |
| Thallium | 178 | 197.6 | 111.0 | 79.2 - 120.2 | |
| Vanadium | 56.3 | 59.08 | 104.9 | 77.1 - 122.9 | |
| Zinc | 198 | 212.9 | 107.5 | 82.3 - 117.2 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Matrix Spike - Batch: 460-427296

**Method: 6010C
Preparation: 3050B**

Lab Sample ID: 460-130545-1
 Client Matrix: Solid
 Dilution: 4.0
 Analysis Date: 03/31/2017 1702
 Prep Date: 03/30/2017 2335
 Leach Date: N/A

Analysis Batch: 460-427491
 Prep Batch: 460-427296
 Leach Batch: N/A
 Units: mg/Kg

Instrument ID: ICP5
 Lab File ID: 427292D1.asc
 Initial Weight/Volume: 1.27 g
 Final Weight/Volume: 50 mL

| Analyte | Sample | Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------|-------------|--------------|--------|--------|----------|------|
| Aluminum | 12400 | | 188 | 13840 | 747 | 75 - 125 | 4 |
| Antimony | 3.7 | U | 47.0 | 19.46 | 41 | 75 - 125 | N |
| Arsenic | 15.6 | | 188 | 196.0 | 96 | 75 - 125 | |
| Barium | 93.0 | | 188 | 291.7 | 106 | 75 - 125 | |
| Beryllium | 0.65 | | 4.70 | 5.48 | 103 | 75 - 125 | |
| Cadmium | 0.73 | U | 4.70 | 4.74 | 101 | 75 - 125 | |
| Calcium | 1930 | | 1880 | 3575 | 88 | 75 - 125 | |
| Chromium | 20.9 | | 18.8 | 40.54 | 105 | 75 - 125 | |
| Cobalt | 7.0 | J | 47.0 | 54.35 | 101 | 75 - 125 | |
| Copper | 54.1 | | 23.5 | 74.34 | 86 | 75 - 125 | |
| Iron | 17800 | | 94.0 | 17240 | -642 | 75 - 125 | 4 |
| Lead | 129 | | 47.0 | 214.2 | 181 | 75 - 125 | N |
| Magnesium | 2800 | | 1880 | 4207 | 75 | 75 - 125 | |
| Manganese | 266 | | 47.0 | 290.2 | 51 | 75 - 125 | 4 |
| Nickel | 15.0 | | 47.0 | 63.24 | 103 | 75 - 125 | |
| Potassium | 1430 | | 1880 | 2905 | 79 | 75 - 125 | |
| Selenium | 3.7 | U | 188 | 175.2 | 93 | 75 - 125 | |
| Silver | 1.8 | U | 4.70 | 4.53 | 96 | 75 - 125 | |
| Sodium | 69.9 | J | 1880 | 1841 | 94 | 75 - 125 | |
| Thallium | 3.7 | U | 188 | 185.1 | 98 | 75 - 125 | |
| Vanadium | 37.3 | | 47.0 | 85.71 | 103 | 75 - 125 | |
| Zinc | 90.8 | | 47.0 | 135.5 | 95 | 75 - 125 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Duplicate - Batch: 460-427296

**Method: 6010C
Preparation: 3050B**

Lab Sample ID: 460-130545-1
 Client Matrix: Solid
 Dilution: 4.0
 Analysis Date: 03/31/2017 1706
 Prep Date: 03/30/2017 2335
 Leach Date: N/A

Analysis Batch: 460-427491
 Prep Batch: 460-427296
 Leach Batch: N/A
 Units: mg/Kg

Instrument ID: ICP5
 Lab File ID: 427292D1.asc
 Initial Weight/Volume: 1.28 g
 Final Weight/Volume: 50 mL

| Analyte | Sample | Result/Qual | Result | RPD | Limit | Qual |
|-----------|--------|-------------|--------|-----|-------|------|
| Aluminum | 12400 | | 11630 | 7 | 20 | |
| Antimony | 3.7 | U | 3.7 | NC | 20 | U |
| Arsenic | 15.6 | | 14.08 | 10 | 20 | |
| Barium | 93.0 | | 88.22 | 5 | 20 | |
| Beryllium | 0.65 | | 0.663 | 2 | 20 | |
| Cadmium | 0.73 | U | 0.75 | NC | 20 | U |
| Calcium | 1930 | | 1531 | 23 | 20 | |
| Chromium | 20.9 | | 22.65 | 8 | 20 | |
| Cobalt | 7.0 | J | 5.92 | 17 | 20 | J |
| Copper | 54.1 | | 41.25 | 27 | 20 | * |
| Iron | 17800 | | 15200 | 16 | 20 | |
| Lead | 129 | | 131.2 | 2 | 20 | |
| Magnesium | 2800 | | 2355 | 17 | 20 | |
| Manganese | 266 | | 234.0 | 13 | 20 | |
| Nickel | 15.0 | | 14.24 | 5 | 20 | |
| Potassium | 1430 | | 1100 | 26 | 20 | |
| Selenium | 3.7 | U | 3.7 | NC | 20 | U |
| Silver | 1.8 | U | 1.9 | NC | 20 | U |
| Sodium | 69.9 | J | 933 | NC | 20 | U |
| Thallium | 3.7 | U | 3.7 | NC | 20 | U |
| Vanadium | 37.3 | | 35.13 | 6 | 20 | |
| Zinc | 90.8 | | 76.33 | 17 | 20 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427354

**Method: 6020A
Preparation: 3010A**

| | | | | | |
|----------------|----------------------|-----------------|------------|------------------------|-----------|
| Lab Sample ID: | MB 460-427354/1-A ^2 | Analysis Batch: | 460-427660 | Instrument ID: | ICPMS3 |
| Client Matrix: | Water | Prep Batch: | 460-427354 | Lab File ID: | 076SMPL.d |
| Dilution: | 2.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 04/01/2017 1631 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/31/2017 0751 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|-----------|--------|------|------|------|
| Aluminum | 40.0 | U | 18.2 | 40.0 |
| Antimony | 2.0 | U | 0.62 | 2.0 |
| Arsenic | 2.0 | U | 0.64 | 2.0 |
| Barium | 4.0 | U | 1.2 | 4.0 |
| Beryllium | 0.80 | U | 0.24 | 0.80 |
| Cadmium | 2.0 | U | 0.71 | 2.0 |
| Calcium | 200 | U | 60.5 | 200 |
| Chromium | 4.0 | U | 1.3 | 4.0 |
| Cobalt | 4.0 | U | 1.3 | 4.0 |
| Copper | 4.0 | U | 1.4 | 4.0 |
| Iron | 120 | U | 42.4 | 120 |
| Lead | 1.2 | U | 0.38 | 1.2 |
| Magnesium | 200 | U | 63.6 | 200 |
| Manganese | 8.0 | U | 2.5 | 8.0 |
| Nickel | 4.0 | U | 1.4 | 4.0 |
| Potassium | 200 | U | 91.4 | 200 |
| Selenium | 10.0 | U | 0.73 | 10.0 |
| Silver | 2.0 | U | 1.3 | 2.0 |
| Sodium | 200 | U | 69.0 | 200 |
| Thallium | 0.80 | U | 0.26 | 0.80 |
| Vanadium | 4.0 | U | 1.9 | 4.0 |
| Zinc | 16.0 | U | 7.0 | 16.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample - Batch: 460-427354

**Method: 6020A
Preparation: 3010A**

| | | | | | |
|----------------|-----------------------|-----------------|------------|------------------------|-----------|
| Lab Sample ID: | LCS 460-427354/2-A ^2 | Analysis Batch: | 460-427660 | Instrument ID: | ICPMS3 |
| Client Matrix: | Water | Prep Batch: | 460-427354 | Lab File ID: | 077SMPL.d |
| Dilution: | 2.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 04/01/2017 1633 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/31/2017 0751 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|----------|------|
| Aluminum | 2500 | 2500 | 100 | 80 - 120 | |
| Antimony | 25.0 | 25.66 | 103 | 80 - 120 | |
| Arsenic | 50.0 | 51.01 | 102 | 80 - 120 | |
| Barium | 50.0 | 50.59 | 101 | 80 - 120 | |
| Beryllium | 25.0 | 25.63 | 103 | 80 - 120 | |
| Cadmium | 25.0 | 25.52 | 102 | 80 - 120 | |
| Calcium | 2500 | 2556 | 102 | 80 - 120 | |
| Chromium | 50.0 | 50.78 | 102 | 80 - 120 | |
| Cobalt | 25.0 | 25.84 | 103 | 80 - 120 | |
| Copper | 50.0 | 51.10 | 102 | 80 - 120 | |
| Iron | 2500 | 2526 | 101 | 80 - 120 | |
| Lead | 25.0 | 25.21 | 101 | 80 - 120 | |
| Magnesium | 2500 | 2523 | 101 | 80 - 120 | |
| Manganese | 250 | 262.2 | 105 | 80 - 120 | |
| Nickel | 50.0 | 50.61 | 101 | 80 - 120 | |
| Potassium | 2500 | 2554 | 102 | 80 - 120 | |
| Selenium | 50.0 | 51.66 | 103 | 80 - 120 | |
| Silver | 25.0 | 20.11 | 80 | 80 - 120 | |
| Sodium | 2500 | 2523 | 101 | 80 - 120 | |
| Thallium | 20.0 | 20.26 | 101 | 80 - 120 | |
| Vanadium | 50.0 | 49.90 | 100 | 80 - 120 | |
| Zinc | 250 | 253.5 | 101 | 80 - 120 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Matrix Spike - Batch: 460-427354

**Method: 6020A
Preparation: 3010A**

| | | | | | |
|----------------|------------------------|-----------------|------------|------------------------|-----------|
| Lab Sample ID: | 460-130246-F-10-D MS ^ | Analysis Batch: | 460-427660 | Instrument ID: | ICPMS3 |
| Client Matrix: | Water | Prep Batch: | 460-427354 | Lab File ID: | 079SMPL.d |
| Dilution: | 2.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 04/01/2017 1638 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/31/2017 0751 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample | Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------|-------------|--------------|--------|--------|----------|------|
| Aluminum | 488 | | 2500 | 2886 | 96 | 75 - 125 | |
| Antimony | 2.0 | U | 25.0 | 25.17 | 101 | 75 - 125 | |
| Arsenic | 2.0 | U | 50.0 | 43.43 | 87 | 75 - 125 | |
| Barium | 38.6 | | 50.0 | 88.24 | 99 | 75 - 125 | |
| Beryllium | 0.80 | U | 25.0 | 25.01 | 100 | 75 - 125 | |
| Cadmium | 2.0 | U | 25.0 | 24.94 | 100 | 75 - 125 | |
| Calcium | 9340 | | 2500 | 11800 | 98 | 75 - 125 | |
| Chromium | 4.0 | U | 50.0 | 49.86 | 100 | 75 - 125 | |
| Cobalt | 3.2 | J | 25.0 | 28.18 | 100 | 75 - 125 | |
| Copper | 2.6 | J | 50.0 | 51.88 | 99 | 75 - 125 | |
| Iron | 206 | | 2500 | 2651 | 98 | 75 - 125 | |
| Lead | 0.53 | J | 25.0 | 25.15 | 99 | 75 - 125 | |
| Magnesium | 4280 | | 2500 | 6625 | 94 | 75 - 125 | |
| Manganese | 22.7 | | 250 | 278.0 | 102 | 75 - 125 | |
| Nickel | 5.1 | | 50.0 | 54.30 | 98 | 75 - 125 | |
| Potassium | 2350 | | 2500 | 4815 | 99 | 75 - 125 | |
| Selenium | 10.0 | U | 50.0 | 45.95 | 92 | 75 - 125 | |
| Silver | 2.0 | U | 25.0 | 19.72 | 79 | 75 - 125 | |
| Sodium | 15000 | | 2500 | 17330 | 93 | 75 - 125 | 4 |
| Thallium | 0.80 | U | 20.0 | 19.96 | 100 | 75 - 125 | |
| Vanadium | 4.0 | U | 50.0 | 49.05 | 98 | 75 - 125 | |
| Zinc | 21.7 | | 250 | 269.9 | 99 | 75 - 125 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Duplicate - Batch: 460-427354

**Method: 6020A
Preparation: 3010A**

| | | | | | |
|----------------|------------------------|-----------------|------------|------------------------|-----------|
| Lab Sample ID: | 460-130246-F-10-C DU ^ | Analysis Batch: | 460-427660 | Instrument ID: | ICPMS3 |
| Client Matrix: | Water | Prep Batch: | 460-427354 | Lab File ID: | 080SMPL.d |
| Dilution: | 2.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 04/01/2017 1641 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 03/31/2017 0751 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|-----------|--------------------|--------|-----|-------|------|
| Aluminum | 488 | 486.5 | 0.2 | 20 | |
| Antimony | 2.0 U | 2.0 | NC | 20 | U |
| Arsenic | 2.0 U | 2.0 | NC | 20 | U |
| Barium | 38.6 | 38.46 | 0.2 | 20 | |
| Beryllium | 0.80 U | 0.80 | NC | 20 | U |
| Cadmium | 2.0 U | 2.0 | NC | 20 | U |
| Calcium | 9340 | 9283 | 0.6 | 20 | |
| Chromium | 4.0 U | 4.0 | NC | 20 | U |
| Cobalt | 3.2 J | 3.14 | 1 | 20 | J |
| Copper | 2.6 J | 2.69 | 3 | 20 | J |
| Iron | 206 | 209.1 | 1 | 20 | |
| Lead | 0.53 J | 0.536 | 2 | 20 | J |
| Magnesium | 4280 | 4227 | 1 | 20 | |
| Manganese | 22.7 | 22.80 | 0.6 | 20 | |
| Nickel | 5.1 | 5.12 | 0.2 | 20 | |
| Potassium | 2350 | 2330 | 0.7 | 20 | |
| Selenium | 10.0 U | 10.0 | NC | 20 | U |
| Silver | 2.0 U | 2.0 | NC | 20 | U |
| Sodium | 15000 | 14960 | 0.4 | 20 | |
| Thallium | 0.80 U | 0.80 | NC | 20 | U |
| Vanadium | 4.0 U | 4.0 | NC | 20 | U |
| Zinc | 21.7 | 21.91 | 1 | 20 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-428185

Method: 6020A Preparation: 3010A

Lab Sample ID: MB 460-428185/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/04/2017 2244
Prep Date: 04/04/2017 1813
Leach Date: N/A

Analysis Batch: 460-428349
Prep Batch: 460-428185
Leach Batch: N/A
Units: ug/L

Instrument ID: ICPMS3
Lab File ID: 090SMPL.d
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

| Analyte | Result | Qual | MDL | RL |
|-----------|--------|------|------|------|
| Aluminum | 20.0 | U | 9.1 | 20.0 |
| Antimony | 1.0 | U | 0.31 | 1.0 |
| Arsenic | 1.0 | U | 0.32 | 1.0 |
| Barium | 2.0 | U | 0.61 | 2.0 |
| Beryllium | 0.40 | U | 0.12 | 0.40 |
| Cadmium | 1.0 | U | 0.36 | 1.0 |
| Calcium | 100 | U | 30.3 | 100 |
| Chromium | 2.0 | U | 0.66 | 2.0 |
| Cobalt | 2.0 | U | 0.65 | 2.0 |
| Copper | 2.0 | U | 0.68 | 2.0 |
| Iron | 60.0 | U | 21.2 | 60.0 |
| Lead | 0.60 | U | 0.19 | 0.60 |
| Magnesium | 100 | U | 31.8 | 100 |
| Manganese | 4.0 | U | 1.2 | 4.0 |
| Nickel | 2.0 | U | 0.68 | 2.0 |
| Potassium | 100 | U | 45.7 | 100 |
| Selenium | 5.0 | U | 0.37 | 5.0 |
| Silver | 1.0 | U | 0.64 | 1.0 |
| Sodium | 100 | U | 34.5 | 100 |
| Thallium | 0.40 | U | 0.13 | 0.40 |
| Vanadium | 2.0 | U | 0.95 | 2.0 |
| Zinc | 8.0 | U | 3.5 | 8.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Lab Control Sample - Batch: 460-428185

**Method: 6020A
Preparation: 3010A**

| | | |
|-----------------------------------|----------------------------|------------------------------|
| Lab Sample ID: LCS 460-428185/2-A | Analysis Batch: 460-428349 | Instrument ID: ICPMS3 |
| Client Matrix: Water | Prep Batch: 460-428185 | Lab File ID: 091SMPL.d |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 10 mL |
| Analysis Date: 04/04/2017 2247 | Units: ug/L | Final Weight/Volume: 10 mL |
| Prep Date: 04/04/2017 1813 | | |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|----------|------|
| Aluminum | 500 | 484.8 | 97 | 80 - 120 | |
| Antimony | 5.00 | 4.93 | 99 | 80 - 120 | |
| Arsenic | 10.0 | 9.93 | 99 | 80 - 120 | |
| Barium | 10.0 | 9.94 | 99 | 80 - 120 | |
| Beryllium | 5.00 | 4.69 | 94 | 80 - 120 | |
| Cadmium | 5.00 | 4.80 | 96 | 80 - 120 | |
| Calcium | 500 | 501.0 | 100 | 80 - 120 | |
| Chromium | 10.0 | 9.73 | 97 | 80 - 120 | |
| Cobalt | 5.00 | 4.88 | 98 | 80 - 120 | |
| Copper | 10.0 | 9.91 | 99 | 80 - 120 | |
| Iron | 500 | 473.8 | 95 | 80 - 120 | |
| Lead | 5.00 | 4.82 | 96 | 80 - 120 | |
| Magnesium | 500 | 490.7 | 98 | 80 - 120 | |
| Manganese | 50.0 | 49.58 | 99 | 80 - 120 | |
| Nickel | 10.0 | 9.84 | 98 | 80 - 120 | |
| Potassium | 500 | 488.2 | 98 | 80 - 120 | |
| Selenium | 10.0 | 10.50 | 105 | 80 - 120 | |
| Silver | 5.00 | 5.16 | 103 | 80 - 120 | |
| Sodium | 500 | 497.5 | 99 | 80 - 120 | |
| Thallium | 4.00 | 3.86 | 96 | 80 - 120 | |
| Vanadium | 10.0 | 9.54 | 95 | 80 - 120 | |
| Zinc | 50.0 | 48.13 | 96 | 80 - 120 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Matrix Spike - Batch: 460-428185

**Method: 6020A
Preparation: 3010A
Dissolved**

| | | |
|---------------------------------------|----------------------------|------------------------------|
| Lab Sample ID: 460-130174-I-1-C MS ^2 | Analysis Batch: 460-428349 | Instrument ID: ICPMS3 |
| Client Matrix: Water | Prep Batch: 460-428185 | Lab File ID: 092SMPL.d |
| Dilution: 2.0 | Leach Batch: N/A | Initial Weight/Volume: 10 mL |
| Analysis Date: 04/04/2017 2249 | Units: ug/L | Final Weight/Volume: 10 mL |
| Prep Date: 04/04/2017 1813 | | |
| Leach Date: N/A | | |

| Analyte | Sample | Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------|-------------|--------------|--------|--------|----------|------|
| Aluminum | 40.0 | U | 1000 | 1024 | 102 | 75 - 125 | |
| Antimony | 2.0 | U | 10.0 | 9.13 | 91 | 75 - 125 | |
| Arsenic | 9.6 | | 20.0 | 30.41 | 104 | 75 - 125 | |
| Barium | 376 | | 20.0 | 397.8 | 110 | 75 - 125 | 4 |
| Beryllium | 0.80 | U | 10.0 | 10.35 | 104 | 75 - 125 | |
| Cadmium | 2.0 | U | 10.0 | 10.10 | 101 | 75 - 125 | |
| Calcium | 178000 | | 1000 | 174600 | -380 | 75 - 125 | 4 |
| Chromium | 4.9 | | 20.0 | 24.87 | 100 | 75 - 125 | |
| Cobalt | 13.5 | | 10.0 | 23.23 | 97 | 75 - 125 | |
| Copper | 4.0 | U | 20.0 | 18.95 | 95 | 75 - 125 | |
| Iron | 71500 | | 1000 | 71590 | 5 | 75 - 125 | 4 |
| Lead | 1.2 | U | 10.0 | 10.30 | 103 | 75 - 125 | |
| Magnesium | 106000 | | 1000 | 104400 | -138 | 75 - 125 | 4 |
| Manganese | 12900 | | 100 | 12800 | -118 | 75 - 125 | 4 |
| Nickel | 7.3 | | 20.0 | 26.34 | 95 | 75 - 125 | |
| Potassium | 6380 | | 1000 | 7230 | 85 | 75 - 125 | 4 |
| Selenium | 10.0 | U | 20.0 | 22.59 | 113 | 75 - 125 | |
| Silver | 2.0 | U | 10.0 | 9.74 | 97 | 75 - 125 | |
| Sodium | 284000 | | 1000 | 277200 | -633 | 75 - 125 | 4 |
| Thallium | 0.80 | U | 8.00 | 8.30 | 104 | 75 - 125 | |
| Vanadium | 2.1 | J | 20.0 | 22.44 | 102 | 75 - 125 | |
| Zinc | 16.0 | U | 100 | 95.84 | 96 | 75 - 125 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Duplicate - Batch: 460-428185

**Method: 6020A
Preparation: 3010A
Dissolved**

| | | |
|---------------------------------------|----------------------------|------------------------------|
| Lab Sample ID: 460-130174-I-1-B DU ^2 | Analysis Batch: 460-428349 | Instrument ID: ICPMS3 |
| Client Matrix: Water | Prep Batch: 460-428185 | Lab File ID: 093SMPL.d |
| Dilution: 2.0 | Leach Batch: N/A | Initial Weight/Volume: 10 mL |
| Analysis Date: 04/04/2017 2252 | Units: ug/L | Final Weight/Volume: 10 mL |
| Prep Date: 04/04/2017 1813 | | |
| Leach Date: N/A | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|-----------|--------------------|--------|-----|-------|------|
| Aluminum | 40.0 U | 40.0 | NC | 20 | U |
| Antimony | 2.0 U | 2.0 | NC | 20 | U |
| Arsenic | 9.6 | 9.75 | 1 | 20 | |
| Barium | 376 | 382.5 | 2 | 20 | |
| Beryllium | 0.80 U | 0.80 | NC | 20 | U |
| Cadmium | 2.0 U | 2.0 | NC | 20 | U |
| Calcium | 178000 | 181200 | 2 | 20 | |
| Chromium | 4.9 | 4.97 | 2 | 20 | |
| Cobalt | 13.5 | 13.75 | 2 | 20 | |
| Copper | 4.0 U | 4.0 | NC | 20 | U |
| Iron | 71500 | 73030 | 2 | 20 | |
| Lead | 1.2 U | 1.2 | NC | 20 | U |
| Magnesium | 106000 | 107200 | 1 | 20 | |
| Manganese | 12900 | 13090 | 1 | 20 | |
| Nickel | 7.3 | 7.36 | 0.5 | 20 | |
| Potassium | 6380 | 6457 | 1 | 20 | |
| Silver | 2.0 U | 2.0 | NC | 20 | U |
| Sodium | 284000 | 286300 | 1 | 20 | |
| Thallium | 0.80 U | 0.80 | NC | 20 | U |
| Vanadium | 2.1 J | 2.15 | 2 | 20 | J |
| Zinc | 16.0 U | 16.0 | NC | 20 | U |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427427

Lab Sample ID: MB 460-427427/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/31/2017 1510
 Prep Date: 03/31/2017 1241
 Leach Date: N/A

Analysis Batch: 460-427489
 Prep Batch: 460-427427
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A**

Instrument ID: LEEMAN6
 Lab File ID: 427426hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Result | Qual | MDL | RL |
|---------|--------|------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

Lab Control Sample - Batch: 460-427427

Lab Sample ID: LCS 460-427427/2-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/31/2017 1512
 Prep Date: 03/31/2017 1241
 Leach Date: N/A

Analysis Batch: 460-427489
 Prep Batch: 460-427427
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A**

Instrument ID: LEEMAN6
 Lab File ID: 427426hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|----------|------|
| Mercury | 1.00 | 0.873 | 87 | 80 - 120 | |

Matrix Spike - Batch: 460-427427

Lab Sample ID: 460-130539-F-5-C MS
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/31/2017 1521
 Prep Date: 03/31/2017 1241
 Leach Date: N/A

Analysis Batch: 460-427489
 Prep Batch: 460-427427
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A**

Instrument ID: LEEMAN6
 Lab File ID: 427426hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Sample Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------------|--------------|--------|--------|----------|------|
| Mercury | 0.20 U | 1.00 | 0.907 | 91 | 80 - 120 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Duplicate - Batch: 460-427427

Method: 7470A
Preparation: 7470A

Lab Sample ID: 460-130539-F-5-B DU
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/31/2017 1520
Prep Date: 03/31/2017 1241
Leach Date: N/A

Analysis Batch: 460-427489
Prep Batch: 460-427427
Leach Batch: N/A
Units: ug/L

Instrument ID: LEEMAN6
Lab File ID: 427426hg1.CSV
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---------|--------------------|--------|-----|-------|------|
| Mercury | 0.20 U | 0.20 | NC | 20 | U |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427431

Lab Sample ID: MB 460-427428/1-B
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/31/2017 1610
 Prep Date: 03/31/2017 1252
 Leach Date: N/A

Analysis Batch: 460-427489
 Prep Batch: 460-427431
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A
 Dissolved**

Instrument ID: LEEMAN6
 Lab File ID: 427426hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Result | Qual | MDL | RL |
|---------|--------|------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

Lab Control Sample - Batch: 460-427431

Lab Sample ID: LCS 460-427431/3-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/31/2017 1612
 Prep Date: 03/31/2017 1252
 Leach Date: N/A

Analysis Batch: 460-427489
 Prep Batch: 460-427431
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A**

Instrument ID: LEEMAN6
 Lab File ID: 427426hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|----------|------|
| Mercury | 1.00 | 0.848 | 85 | 80 - 120 | |

Matrix Spike - Batch: 460-427431

Lab Sample ID: 460-130507-E-10-B MS
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/31/2017 1635
 Prep Date: 03/31/2017 1252
 Leach Date: N/A

Analysis Batch: 460-427489
 Prep Batch: 460-427431
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A
 Dissolved**

Instrument ID: LEEMAN6
 Lab File ID: 427426hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Sample Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------------|--------------|--------|--------|----------|------|
| Mercury | 0.20 U | 1.00 | 0.835 | 84 | 80 - 120 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Duplicate - Batch: 460-427431

Method: 7470A
Preparation: 7470A
Dissolved

| | | | | | |
|----------------|----------------------|-----------------|------------|------------------------|---------------|
| Lab Sample ID: | 460-130507-B-10-A DU | Analysis Batch: | 460-427489 | Instrument ID: | LEEMAN6 |
| Client Matrix: | Water | Prep Batch: | 460-427431 | Lab File ID: | 427426hg1.CSV |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 30 mL |
| Analysis Date: | 03/31/2017 1633 | Units: | ug/L | Final Weight/Volume: | 30 mL |
| Prep Date: | 03/31/2017 1252 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---------|--------------------|--------|-----|-------|------|
| Mercury | 0.20 U | 0.20 | NC | 20 | U |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Method Blank - Batch: 460-427060

Lab Sample ID: MB 460-427060/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/30/2017 1013
 Prep Date: 03/30/2017 0423
 Leach Date: N/A

Analysis Batch: 460-427152
 Prep Batch: 460-427060
 Leach Batch: N/A
 Units: mg/Kg

**Method: 7471B
 Preparation: 7471B**

Instrument ID: LEEMAN5
 Lab File ID: 427055HG1.PRN
 Initial Weight/Volume: 0.60 g
 Final Weight/Volume: 50 mL

| Analyte | Result | Qual | MDL | RL |
|---------|--------|------|-------|-------|
| Mercury | 0.017 | U | 0.011 | 0.017 |

LCS-Certified Reference Material - Batch: 460-427060

Lab Sample ID: LCSSRM 460-427060/2-~~A~~
 Client Matrix: Solid
 Dilution: 20
 Analysis Date: 03/30/2017 1015
 Prep Date: 03/30/2017 0423
 Leach Date: N/A

Analysis Batch: 460-427152
 Prep Batch: 460-427060
 Leach Batch: N/A
 Units: mg/Kg

**Method: 7471B
 Preparation: 7471B**

Instrument ID: LEEMAN5
 Lab File ID: 427055HG1.PRN
 Initial Weight/Volume: 0.60 g
 Final Weight/Volume: 50 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|--------------|------|
| Mercury | 12.3 | 12.47 | 101.4 | 64.1 - 135.8 | |

Matrix Spike - Batch: 460-427060

Lab Sample ID: 460-130471-A-9-C MS
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/30/2017 1020
 Prep Date: 03/30/2017 0423
 Leach Date: N/A

Analysis Batch: 460-427152
 Prep Batch: 460-427060
 Leach Batch: N/A
 Units: mg/Kg

**Method: 7471B
 Preparation: 7471B**

Instrument ID: LEEMAN5
 Lab File ID: 427055HG1.PRN
 Initial Weight/Volume: 0.66 g
 Final Weight/Volume: 50 mL

| Analyte | Sample Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------------|--------------|--------|--------|----------|------|
| Mercury | 0.013 J | 0.0845 | 0.0913 | 93 | 75 - 125 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Duplicate - Batch: 460-427060

Method: 7471B
Preparation: 7471B

Lab Sample ID: 460-130471-A-9-B DU
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/30/2017 1019
Prep Date: 03/30/2017 0423
Leach Date: N/A

Analysis Batch: 460-427152
Prep Batch: 460-427060
Leach Batch: N/A
Units: mg/Kg

Instrument ID: LEEMAN5
Lab File ID: 427055HG1.PRN
Initial Weight/Volume: 0.66 g
Final Weight/Volume: 50 mL

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---------|--------------------|--------|-----|-------|------|
| Mercury | 0.013 J | 0.017 | NC | 20 | U |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Duplicate - Batch: 460-427233

**Method: Moisture
Preparation: N/A**

| | | | | | |
|----------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Lab Sample ID: | 460-130545-1 | Analysis Batch: | 460-427233 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Solid | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/30/2017 1610 | Units: | % | Final Weight/Volume: | |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|------------------|--------------------|--------|-----|-------|------|
| Percent Moisture | 16.3 | 16.1 | 1 | 20 | |
| Percent Solids | 83.7 | 83.9 | 0.2 | 20 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130545-1

Duplicate - Batch: 460-427234

**Method: Moisture
Preparation: N/A**

| | | | | | |
|----------------|--------------------|-----------------|------------|------------------------|-----------------------|
| Lab Sample ID: | 460-130306-A-11 DU | Analysis Batch: | 460-427234 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Solid | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 03/30/2017 1637 | Units: | % | Final Weight/Volume: | |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|------------------|--------------------|--------|-----|-------|------|
| Percent Moisture | 14.7 | 18.3 | 22 | 20 | * |
| Percent Solids | 85.3 | 81.7 | 4 | 20 | |

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



460-130545 Chain of Custody

SIS REQUEST

Page 1 of 1

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Name (for report and invoice)

Matthews Lay

Samplers Name (Printed)

Matthews Lay

Site/Project Identification

ANNON

Company

Matthews Lay
HBRF

P. O. #

Regulatory Program:

State (Location of site): NJ NY Other:

Address

410 Park Ave S

Analysis Turnaround Time

Standard

Rush Charges Authorized For:

2 Week

1 Week

Other

ANALYSIS REQUESTED (ENTER X, BELOW TO INDICATE REQUEST)

LAB USE ONLY
Project No:

City

NY NY

Phone

631 943 4763

Fax

631 943 4763

Job No:

130515

Sample Identification

Date

Time

Time & SV Matrix Cont.

TCL VOCs

TCL SVOCs

PCB

Pest

TAL Metals

TAL Metals Filtered

SB-6(6-1)-170329

3/01

0845

Soil B

X

X

X

X

X

X

SB-6(6-4D)-170329

1000

GW

11

Hold

Hold

Hold

Hold

Hold

Hold

SB-1(1-2)-170329

1025

Soil

3

X

X

X

X

X

X

SB-1(1-4)-170329

1145

Soil

3

X

X

X

X

X

X

GW-1(1-2)-170329

1330

GW

11

X

X

X

X

X

X

SV-6-170329

1227

1525

1

X

X

X

X

X

X

SV-1-170329

1211

1538

1

X

X

X

X

X

X

SV-3-170329

1427

15-28

1

X

X

X

X

X

X

TB-170329

Soil

Vapor

1

X

X

X

X

X

X

Preservation Used: 1 = ICE, 2 = HCl, 3 = H₂SO₄, 4 = HNO₃, 5 = NaOH, 6 = Other, 7 = Other

Special Instructions

TB-170329 Can # 3060 PG # 2749 SV-3-170329 Can # 4919 PG # 3244
SV-1-170329 Can # 2812 PG # 5021 SV-6-170329 Can # 4505 Water Metals Filtered (Yes/No)?

| Relinquished by | Company | Date / Time | Received by | Company |
|-----------------|---------|-------------|-------------|---------|
| Matthews Lay | ANNON | 11/01/17 | T.P. | ANNON |
| Matthews Lay | ANNON | 3/12/17 | Van Linn | ANNON |
| Matthews Lay | ANNON | 3/12/17 | Van Linn | ANNON |
| Matthews Lay | ANNON | 3/12/17 | Van Linn | ANNON |

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

2.05 / 2.8 T8H8 NDC

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-130545-1

Login Number: 130545
List Number: 1
Creator: Rivera, Kenneth

List Source: TestAmerica Edison

| Question | Answer | Comment |
|--|--------|---|
| Radioactivity wasn't checked or is <=/ background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | N/A | Not present |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 2.5°C, IR #8 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | No analysis requiring residual chlorine check assigned. |

ANALYTICAL REPORT

Job Number: 460-130646-1

Job Description: American Museum of Natural History

For:
AKRF Inc
440 Park Avenue South
7th Floor
New York, NY 10016
Attention: Mr. Eric Park



Approved for release.
Allison L. Bennett
Project Management Assistant II
4/6/2017 4:35 PM

Designee for
Melissa Haas, Project Manager I
777 New Durham Road, Edison, NJ, 08817
(203)944-1310
melissa.haas@testamericainc.com
04/06/2017

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LAO00132

TestAmerica Laboratories, Inc.

TestAmerica Edison 777 New Durham Road, Edison, NJ 08817
Tel (732) 549-3900 Fax (732) 549-3679 www.testamericainc.com



Job Number: 460-130646-1

Job Description: American Museum of Natural History

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Approved for release.
Allison L. Bennett
Project Management Assistant II
4/6/2017 4:35 PM

Designee for
Melissa Haas

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CASE NARRATIVE

Client: AKRF Inc

Project: American Museum of Natural History

Report Number: 460-130646-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 3/30/2017 6:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

Receipt Exceptions

Per laboratory policy, the Trip Blank sample date/time was changed to reflect the latest sample date/time of the sampling event.

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC). 2 vials received. The client was notified that the sample was activated for analysis.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples SB-7 (1-2)-170330 (460-130646-1), SB-7 (18.5-19.5)-170330 (460-130646-2), SB-10 (2-3)-170330 (460-130646-4) and SB-9 (2-3)-170330 (460-130646-5) were analyzed for Volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260C. The samples were prepared on 03/31/2017 and analyzed on 04/04/2017.

Acetone was detected in method blank MB 460-427946/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Acetone was detected in method blank MB 460-428019/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

1,1,2-Trichloro-1,2,2-trifluoroethane was detected in method blank LB3 460-427346/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Acetone was detected in method blank LB3 460-427346/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analysis.

All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GW-7-170330 (460-130646-3) and Trip Blank (460-130646-6) were analyzed for Volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 04/05/2017.

The continuing calibration verification (CCV) analyzed in batch 460-428182 was outside the method criteria for the following analyte(s): Bromoform and 1,2,3-Trichlorobenzene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples SB-7 (1-2)-170330 (460-130646-1), SB-7 (18.5-19.5)-170330 (460-130646-2), SB-10 (2-3)-170330 (460-130646-4) and SB-9 (2-3)-170330 (460-130646-5) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/02/2017 and analyzed on 04/03/2017.

Nitrobenzene-d5 (Surr) and Phenol-d5 (Surr) failed the surrogate recovery criteria high for LCS 460-427681/2-A.

Nitrobenzene-d5 (Surr) failed the surrogate recovery criteria high for LCS 460-427681/3-A.

Isophorone and N-Nitrosodi-n-propylamine failed the recovery criteria high for LCS 460-427681/2-A.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for 460-130644-E-14-A MS.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for 460-130644-E-14-B MSD.

Several analytes failed the recovery criteria low for the MS of sample 460-130644-14 in batch 460-427760. Fluoranthene and Phenanthrene failed the recovery criteria high.

For the MSD of sample 460-130644-14 in batch 460-427760, Several analytes failed the recovery criteria low. Several analytes failed the recovery criteria high. Also, Fluoranthene and Phenanthrene exceeded the RPD limit.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample GW-7-170330 (460-130646-3) was analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 03/31/2017 and analyzed on 04/03/2017.

A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for five analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 460-427482 had three analytes (Chrysene, Benzo[a]anthracene and Dibenzofuran) outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

3,3'-Dichlorobenzidine, Benzo[b]fluoranthene and Bis(2-chloroethyl)ether failed the recovery criteria low for the MS of sample 460-130598-3 in batch 460-427527.

3,3'-Dichlorobenzidine failed the recovery criteria low for the MSD of sample 460-130598-3 in batch 460-427527. 3,3'-Dichlorobenzidine exceeded the RPD limit.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Samples SB-7 (1-2)-170330 (460-130646-1), SB-7 (18.5-19.5)-170330 (460-130646-2), SB-10 (2-3)-170330 (460-130646-4) and SB-9 (2-3)-170330 (460-130646-5) were analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 03/31/2017 and analyzed on 04/02/2017 and 04/03/2017.

The DCB Decachlorobiphenyl surrogate recovery for the following samples was outside acceptance limits (high biased) on the confirmation column due to matrix interference: SB-7 (1-2)-170330 (460-130646-1) and SB-10 (2-3)-170330 (460-130646-4). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Endrin aldehyde failed the recovery criteria low for the MS/MSD of sample 460-130621-6 in batch 460-427686.

Refer to the QC report for details.

No other difficulties were encountered during the Pesticides analysis.

All other quality control parameters were within the acceptance limits.

PESTICIDES

Sample GW-7-170330 (460-130646-3) was analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 04/03/2017 and analyzed on 04/05/2017.

No difficulties were encountered during the pesticides analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples SB-7 (1-2)-170330 (460-130646-1), SB-7 (18.5-19.5)-170330 (460-130646-2), SB-10 (2-3)-170330 (460-130646-4) and SB-9 (2-3)-170330 (460-130646-5) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 03/31/2017 and analyzed on 04/02/2017 and 04/03/2017.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Sample GW-7-170330 (460-130646-3) was analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared and analyzed on 04/03/2017.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

METALS

Samples SB-7 (1-2)-170330 (460-130646-1), SB-7 (18.5-19.5)-170330 (460-130646-2), SB-10 (2-3)-170330 (460-130646-4) and SB-9 (2-3)-170330 (460-130646-5) were analyzed for Metals in accordance with EPA SW-846 Methods 6010C. The samples were prepared on 04/01/2017 and analyzed on 04/02/2017.

Antimony failed the recovery criteria low for the MS of sample 460-130644-12 in batch 460-427721. Several analytes failed the recovery criteria high.

Copper exceeded the RPD limit for the duplicate of sample 460-130644-12.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

Samples SB-7 (1-2)-170330 (460-130646-1)[4X], SB-7 (18.5-19.5)-170330 (460-130646-2)[4X], SB-10 (2-3)-170330 (460-130646-4)[4X] and SB-9 (2-3)-170330 (460-130646-5)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

DISSOLVED METALS

Sample GW-7-170330 (460-130646-3) was analyzed for dissolved metals in accordance with EPA SW-846 Method 6020A. The samples were prepared and analyzed on 04/05/2017.

Sodium failed the recovery criteria low for the MS of sample 460-130507-10 in batch 460-428431.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the dissolved metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS

Sample GW-7-170330 (460-130646-3) was analyzed for total metals in accordance with EPA SW-846 Method 6020A. The samples were prepared on 04/02/2017 and analyzed on 04/03/2017.

No difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples SB-7 (1-2)-170330 (460-130646-1), SB-7 (18.5-19.5)-170330 (460-130646-2), SB-10 (2-3)-170330 (460-130646-4) and SB-9 (2-3)-170330 (460-130646-5) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 04/03/2017.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

DISSOLVED MERCURY

Sample GW-7-170330 (460-130646-3) was analyzed for dissolved mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 03/31/2017.

No difficulties were encountered during the dissolved Hg analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Sample GW-7-170330 (460-130646-3) was analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 04/03/2017.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples SB-7 (1-2)-170330 (460-130646-1), SB-7 (18.5-19.5)-170330 (460-130646-2), SB-10 (2-3)-170330 (460-130646-4) and SB-9 (2-3)-170330 (460-130646-5) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 04/04/2017.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130646-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|---------------------------------------|--------------------------|--------|-----------|--------------------|-------|----------|
| 460-130646-1 | SB-7 (1-2)-170330 | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 2.4 | B | 1.0 | ug/Kg | 8260C |
| Acetone | | 1.4 | J B | 5.1 | ug/Kg | 8260C |
| Acenaphthene | | 18 | J | 380 | ug/Kg | 8270D |
| Anthracene | | 36 | J | 380 | ug/Kg | 8270D |
| Benzo[a]anthracene | | 230 | | 38 | ug/Kg | 8270D |
| Benzo[a]pyrene | | 210 | | 38 | ug/Kg | 8270D |
| Benzo[b]fluoranthene | | 320 | | 38 | ug/Kg | 8270D |
| Benzo[g,h,i]perylene | | 100 | J | 380 | ug/Kg | 8270D |
| Benzo[k]fluoranthene | | 100 | | 38 | ug/Kg | 8270D |
| Carbazole | | 17 | J | 380 | ug/Kg | 8270D |
| Chrysene | | 270 | J | 380 | ug/Kg | 8270D |
| Dibenzofuran | | 12 | J | 380 | ug/Kg | 8270D |
| Di-n-butyl phthalate | | 57 | J | 380 | ug/Kg | 8270D |
| Fluoranthene | | 480 | | 380 | ug/Kg | 8270D |
| Fluorene | | 13 | J | 380 | ug/Kg | 8270D |
| Indeno[1,2,3-cd]pyrene | | 120 | | 38 | ug/Kg | 8270D |
| Phenanthrene | | 250 | J | 380 | ug/Kg | 8270D |
| Pyrene | | 490 | | 380 | ug/Kg | 8270D |
| 4,4'-DDD | | 21 | | 7.7 | ug/Kg | 8081B |
| 4,4'-DDE | | 77 | | 7.7 | ug/Kg | 8081B |
| 4,4'-DDT | | 65 | | 7.7 | ug/Kg | 8081B |
| Aluminum | | 12400 | | 35.0 | mg/Kg | 6010C |
| Arsenic | | 11.8 | | 2.6 | mg/Kg | 6010C |
| Barium | | 101 | | 35.0 | mg/Kg | 6010C |
| Beryllium | | 0.51 | | 0.35 | mg/Kg | 6010C |
| Calcium | | 2220 | | 875 | mg/Kg | 6010C |
| Chromium | | 22.6 | | 1.8 | mg/Kg | 6010C |
| Cobalt | | 7.4 | J | 8.8 | mg/Kg | 6010C |
| Copper | | 35.4 | | 4.4 | mg/Kg | 6010C |
| Iron | | 18100 | | 26.3 | mg/Kg | 6010C |
| Lead | | 110 | | 1.8 | mg/Kg | 6010C |
| Magnesium | | 3350 | | 875 | mg/Kg | 6010C |
| Manganese | | 350 | | 2.6 | mg/Kg | 6010C |
| Nickel | | 19.7 | | 7.0 | mg/Kg | 6010C |
| Potassium | | 1620 | | 875 | mg/Kg | 6010C |
| Vanadium | | 53.7 | | 8.8 | mg/Kg | 6010C |
| Zinc | | 82.6 | | 5.3 | mg/Kg | 6010C |
| Mercury | | 0.57 | | 0.019 | mg/Kg | 7471B |
| Percent Moisture | | 12.8 | | 1.0 | % | Moisture |
| Percent Solids | | 87.2 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130646-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|---------------------------------------|--------------------------------|--------|-----------|--------------------|-------|----------|
| 460-130646-2 | SB-7 (18.5-19.5)-170330 | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 2.2 | B | 1.1 | ug/Kg | 8260C |
| 2-Butanone (MEK) | | 6.3 | | 5.3 | ug/Kg | 8260C |
| Acetone | | 25 | B | 5.3 | ug/Kg | 8260C |
| 2-Methylnaphthalene | | 9.5 | J | 400 | ug/Kg | 8270D |
| Benzaldehyde | | 47 | J | 400 | ug/Kg | 8270D |
| Benzo[a]anthracene | | 84 | | 40 | ug/Kg | 8270D |
| Benzo[a]pyrene | | 68 | | 40 | ug/Kg | 8270D |
| Benzo[b]fluoranthene | | 100 | | 40 | ug/Kg | 8270D |
| Benzo[g,h,i]perylene | | 46 | J | 400 | ug/Kg | 8270D |
| Benzo[k]fluoranthene | | 52 | | 40 | ug/Kg | 8270D |
| Carbazole | | 12 | J | 400 | ug/Kg | 8270D |
| Chrysene | | 110 | J | 400 | ug/Kg | 8270D |
| Dibenzofuran | | 14 | J | 400 | ug/Kg | 8270D |
| Fluoranthene | | 180 | J | 400 | ug/Kg | 8270D |
| Indeno[1,2,3-cd]pyrene | | 45 | | 40 | ug/Kg | 8270D |
| Naphthalene | | 21 | J | 400 | ug/Kg | 8270D |
| Phenanthrene | | 100 | J | 400 | ug/Kg | 8270D |
| Pyrene | | 170 | J | 400 | ug/Kg | 8270D |
| Aluminum | | 10100 | | 37.9 | mg/Kg | 6010C |
| Arsenic | | 3.7 | | 2.8 | mg/Kg | 6010C |
| Barium | | 96.7 | | 37.9 | mg/Kg | 6010C |
| Beryllium | | 0.36 | J | 0.38 | mg/Kg | 6010C |
| Calcium | | 9360 | | 947 | mg/Kg | 6010C |
| Chromium | | 14.9 | | 1.9 | mg/Kg | 6010C |
| Cobalt | | 6.7 | J | 9.5 | mg/Kg | 6010C |
| Copper | | 49.6 | | 4.7 | mg/Kg | 6010C |
| Iron | | 20000 | | 28.4 | mg/Kg | 6010C |
| Lead | | 96.7 | | 1.9 | mg/Kg | 6010C |
| Magnesium | | 2570 | | 947 | mg/Kg | 6010C |
| Manganese | | 551 | | 2.8 | mg/Kg | 6010C |
| Nickel | | 15.1 | | 7.6 | mg/Kg | 6010C |
| Potassium | | 1400 | | 947 | mg/Kg | 6010C |
| Sodium | | 91.7 | J | 947 | mg/Kg | 6010C |
| Vanadium | | 21.0 | | 9.5 | mg/Kg | 6010C |
| Zinc | | 70.0 | | 5.7 | mg/Kg | 6010C |
| Mercury | | 0.79 | | 0.021 | mg/Kg | 7471B |
| Percent Moisture | | 17.5 | | 1.0 | % | Moisture |
| Percent Solids | | 82.5 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130646-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|--------------------|--------|-----------|--------------------|-------|--------|
| 460-130646-3 | GW-7-170330 | | | | | |
| Aluminum | | 426 | | 40.0 | ug/L | 6020A |
| Arsenic | | 1.1 | J | 2.0 | ug/L | 6020A |
| Barium | | 104 | | 4.0 | ug/L | 6020A |
| Calcium | | 191000 | | 200 | ug/L | 6020A |
| Cobalt | | 1.5 | J | 4.0 | ug/L | 6020A |
| Copper | | 2.8 | J | 4.0 | ug/L | 6020A |
| Iron | | 1160 | | 120 | ug/L | 6020A |
| Lead | | 4.9 | | 1.2 | ug/L | 6020A |
| Magnesium | | 19000 | | 200 | ug/L | 6020A |
| Manganese | | 5050 | | 8.0 | ug/L | 6020A |
| Nickel | | 6.9 | | 4.0 | ug/L | 6020A |
| Potassium | | 18300 | | 200 | ug/L | 6020A |
| Selenium | | 1.4 | J | 10.0 | ug/L | 6020A |
| Sodium | | 29800 | | 200 | ug/L | 6020A |
| Vanadium | | 2.5 | J | 4.0 | ug/L | 6020A |
| <i>Dissolved</i> | | | | | | |
| Aluminum | | 177 | | 40.0 | ug/L | 6020A |
| Arsenic | | 0.93 | J | 2.0 | ug/L | 6020A |
| Barium | | 97.8 | | 4.0 | ug/L | 6020A |
| Calcium | | 187000 | | 200 | ug/L | 6020A |
| Cobalt | | 1.3 | J | 4.0 | ug/L | 6020A |
| Copper | | 2.0 | J | 4.0 | ug/L | 6020A |
| Iron | | 379 | | 120 | ug/L | 6020A |
| Lead | | 4.4 | | 1.2 | ug/L | 6020A |
| Magnesium | | 18200 | | 200 | ug/L | 6020A |
| Manganese | | 4880 | | 8.0 | ug/L | 6020A |
| Nickel | | 5.9 | | 4.0 | ug/L | 6020A |
| Potassium | | 18000 | | 200 | ug/L | 6020A |
| Selenium | | 1.5 | J | 10.0 | ug/L | 6020A |
| Sodium | | 25600 | | 200 | ug/L | 6020A |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130646-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|---------------------------------------|---------------------------|--------|-----------|--------------------|-------|----------|
| 460-130646-4 | SB-10 (2-3)-170330 | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 2.5 | B | 1.0 | ug/Kg | 8260C |
| Acetone | | 1.8 | J B | 5.1 | ug/Kg | 8260C |
| Methylene Chloride | | 0.33 | J | 1.0 | ug/Kg | 8260C |
| 2-Methylnaphthalene | | 11 | J | 390 | ug/Kg | 8270D |
| Benzo[a]anthracene | | 180 | | 39 | ug/Kg | 8270D |
| Benzo[a]pyrene | | 170 | | 39 | ug/Kg | 8270D |
| Benzo[b]fluoranthene | | 250 | | 39 | ug/Kg | 8270D |
| Benzo[g,h,i]perylene | | 85 | J | 390 | ug/Kg | 8270D |
| Benzo[k]fluoranthene | | 72 | | 39 | ug/Kg | 8270D |
| Bis(2-ethylhexyl) phthalate | | 160 | J | 390 | ug/Kg | 8270D |
| Chrysene | | 200 | J | 390 | ug/Kg | 8270D |
| Dibenz(a,h)anthracene | | 27 | J | 39 | ug/Kg | 8270D |
| Dibenzofuran | | 15 | J | 390 | ug/Kg | 8270D |
| Di-n-butyl phthalate | | 60 | J | 390 | ug/Kg | 8270D |
| Fluoranthene | | 320 | J | 390 | ug/Kg | 8270D |
| Indeno[1,2,3-cd]pyrene | | 97 | | 39 | ug/Kg | 8270D |
| Naphthalene | | 42 | J | 390 | ug/Kg | 8270D |
| Phenanthrene | | 160 | J | 390 | ug/Kg | 8270D |
| Pyrene | | 340 | J | 390 | ug/Kg | 8270D |
| Aluminum | | 10600 | | 36.9 | mg/Kg | 6010C |
| Arsenic | | 6.8 | | 2.8 | mg/Kg | 6010C |
| Barium | | 84.8 | | 36.9 | mg/Kg | 6010C |
| Beryllium | | 0.44 | | 0.37 | mg/Kg | 6010C |
| Calcium | | 1980 | | 921 | mg/Kg | 6010C |
| Chromium | | 23.5 | | 1.8 | mg/Kg | 6010C |
| Cobalt | | 7.5 | J | 9.2 | mg/Kg | 6010C |
| Copper | | 30.8 | | 4.6 | mg/Kg | 6010C |
| Iron | | 17000 | | 27.6 | mg/Kg | 6010C |
| Lead | | 99.2 | | 1.8 | mg/Kg | 6010C |
| Magnesium | | 3150 | | 921 | mg/Kg | 6010C |
| Manganese | | 333 | | 2.8 | mg/Kg | 6010C |
| Nickel | | 22.1 | | 7.4 | mg/Kg | 6010C |
| Potassium | | 1370 | | 921 | mg/Kg | 6010C |
| Vanadium | | 30.0 | | 9.2 | mg/Kg | 6010C |
| Zinc | | 86.9 | | 5.5 | mg/Kg | 6010C |
| Mercury | | 0.34 | | 0.019 | mg/Kg | 7471B |
| Percent Moisture | | 15.2 | | 1.0 | % | Moisture |
| Percent Solids | | 84.8 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130646-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|---------------------------------------|--------------------------|--------|-----------|--------------------|-------|----------|
| 460-130646-5 | SB-9 (2-3)-170330 | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 3.2 | B | 1.0 | ug/Kg | 8260C |
| Acetone | | 1.4 | J B | 5.0 | ug/Kg | 8260C |
| 2-Methylnaphthalene | | 15 | J | 390 | ug/Kg | 8270D |
| Acenaphthene | | 39 | J | 390 | ug/Kg | 8270D |
| Acenaphthylene | | 11 | J | 390 | ug/Kg | 8270D |
| Anthracene | | 100 | J | 390 | ug/Kg | 8270D |
| Benzo[a]anthracene | | 450 | | 39 | ug/Kg | 8270D |
| Benzo[a]pyrene | | 420 | | 39 | ug/Kg | 8270D |
| Benzo[b]fluoranthene | | 540 | | 39 | ug/Kg | 8270D |
| Benzo[g,h,i]perylene | | 360 | J | 390 | ug/Kg | 8270D |
| Benzo[k]fluoranthene | | 240 | | 39 | ug/Kg | 8270D |
| Bis(2-ethylhexyl) phthalate | | 95 | J | 390 | ug/Kg | 8270D |
| Carbazole | | 31 | J | 390 | ug/Kg | 8270D |
| Chrysene | | 520 | | 390 | ug/Kg | 8270D |
| Dibenz(a,h)anthracene | | 76 | | 39 | ug/Kg | 8270D |
| Dibenzofuran | | 28 | J | 390 | ug/Kg | 8270D |
| Fluoranthene | | 910 | | 390 | ug/Kg | 8270D |
| Fluorene | | 33 | J | 390 | ug/Kg | 8270D |
| Indeno[1,2,3-cd]pyrene | | 320 | | 39 | ug/Kg | 8270D |
| Naphthalene | | 32 | J | 390 | ug/Kg | 8270D |
| Phenanthrene | | 550 | | 390 | ug/Kg | 8270D |
| Pyrene | | 980 | | 390 | ug/Kg | 8270D |
| 4,4'-DDD | | 8.2 | | 7.9 | ug/Kg | 8081B |
| 4,4'-DDE | | 47 | | 7.9 | ug/Kg | 8081B |
| 4,4'-DDT | | 81 | | 7.9 | ug/Kg | 8081B |
| Dieldrin | | 2.4 | | 2.4 | ug/Kg | 8081B |
| Aluminum | | 13800 | | 35.3 | mg/Kg | 6010C |
| Arsenic | | 6.2 | | 2.6 | mg/Kg | 6010C |
| Barium | | 153 | | 35.3 | mg/Kg | 6010C |
| Beryllium | | 0.59 | | 0.35 | mg/Kg | 6010C |
| Calcium | | 6670 | | 883 | mg/Kg | 6010C |
| Chromium | | 22.9 | | 1.8 | mg/Kg | 6010C |
| Cobalt | | 8.1 | J | 8.8 | mg/Kg | 6010C |
| Copper | | 27.7 | | 4.4 | mg/Kg | 6010C |
| Iron | | 17500 | | 26.5 | mg/Kg | 6010C |
| Lead | | 143 | | 1.8 | mg/Kg | 6010C |
| Magnesium | | 3740 | | 883 | mg/Kg | 6010C |
| Manganese | | 418 | | 2.6 | mg/Kg | 6010C |
| Nickel | | 17.9 | | 7.1 | mg/Kg | 6010C |
| Potassium | | 1350 | | 883 | mg/Kg | 6010C |
| Sodium | | 404 | J | 883 | mg/Kg | 6010C |
| Vanadium | | 31.4 | | 8.8 | mg/Kg | 6010C |
| Zinc | | 94.9 | | 5.3 | mg/Kg | 6010C |
| Mercury | | 0.44 | | 0.020 | mg/Kg | 7471B |
| Percent Moisture | | 15.4 | | 1.0 | % | Moisture |
| Percent Solids | | 84.6 | | 1.0 | % | Moisture |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-130646-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|------------------|--------|-----------|--------------------|-------|--------|
|--------------------------|------------------|--------|-----------|--------------------|-------|--------|

METHOD SUMMARY

Client: AKRF Inc

Job Number: 460-130646-1

| Description | Lab Location | Method | Preparation Method |
|--|--------------|--------------|--------------------|
| Matrix: Solid | | | |
| Volatile Organic Compounds by GC/MS | TAL EDI | SW846 8260C | |
| Closed System Purge and Trap | TAL EDI | | SW846 5035 |
| Semivolatile Organic Compounds (GC/MS) | TAL EDI | SW846 8270D | |
| Microwave Extraction | TAL EDI | | SW846 3546 |
| Organochlorine Pesticides (GC) | TAL EDI | SW846 8081B | |
| Microwave Extraction | TAL EDI | | SW846 3546 |
| Polychlorinated Biphenyls (PCBs) by Gas Chromatography | TAL EDI | SW846 8082A | |
| Microwave Extraction | TAL EDI | | SW846 3546 |
| Metals (ICP) | TAL EDI | SW846 6010C | |
| Preparation, Metals | TAL EDI | | SW846 3050B |
| Mercury (CVAA) | TAL EDI | SW846 7471B | |
| Preparation, Mercury | TAL EDI | | SW846 7471B |
| Percent Moisture | TAL EDI | EPA Moisture | |
| Matrix: Water | | | |
| Volatile Organic Compounds by GC/MS | TAL EDI | SW846 8260C | |
| Purge and Trap | TAL EDI | | SW846 5030C |
| Semivolatile Organic Compounds (GC/MS) | TAL EDI | SW846 8270D | |
| Liquid-Liquid Extraction (Separatory Funnel) | TAL EDI | | SW846 3510C |
| Organochlorine Pesticides (GC) | TAL EDI | SW846 8081B | |
| Liquid-Liquid Extraction (Separatory Funnel) | TAL EDI | | SW846 3510C |
| Polychlorinated Biphenyls (PCBs) by Gas Chromatography | TAL EDI | SW846 8082A | |
| Liquid-Liquid Extraction (Separatory Funnel) | TAL EDI | | SW846 3510C |
| Metals (ICP/MS) | TAL EDI | SW846 6020A | |
| Preparation, Total Metals | TAL EDI | | SW846 3010A |
| Metals (ICP/MS) | TAL EDI | SW846 6020A | |
| Preparation, Total Metals | TAL EDI | | SW846 3010A |
| Sample Filtration, Field | | | FIELD_FLTRD |
| Mercury (CVAA) | TAL EDI | SW846 7470A | |
| Preparation, Mercury | TAL EDI | | SW846 7470A |
| Mercury (CVAA) | TAL EDI | SW846 7470A | |
| Preparation, Mercury | TAL EDI | | SW846 7470A |
| Sample Filtration, Field | | | FIELD_FLTRD |

Lab References:

TAL EDI = TestAmerica Edison

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: AKRF Inc

Job Number: 460-130646-1

| Method | Analyst | Analyst ID |
|---------------|-------------------|-------------------|
| SW846 8260C | Martinez, Eddie | EMM |
| SW846 8260C | Starzec, Margaret | MZS |
| SW846 8270D | Boykin, Carol B | CBB |
| SW846 8270D | Crocco, Michael | MMC |
| SW846 8081B | Kapoor, Sita | SAK |
| SW846 8081B | Mulani, Heta X | HXM |
| SW846 8082A | Patel, Jignesh | JHP |
| SW846 6010C | Chang, Churn Der | CDC |
| SW846 6020A | Dave, Virendra | VAD |
| SW846 6020A | Patel, Purva H | PHP |
| SW846 7470A | Sheikh, Razia B | RBS |
| SW846 7471B | Staib, Thomas | TJS |
| EPA Moisture | Callahan, Rory W | RWC |

SAMPLE SUMMARY

Client: AKRF Inc

Job Number: 460-130646-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|----------------------|-------------------------|----------------------|------------------------------|-------------------------------|
| 460-130646-1 | SB-7 (1-2)-170330 | Solid | 03/30/2017 0800 | 03/30/2017 1850 |
| 460-130646-2 | SB-7 (18.5-19.5)-170330 | Solid | 03/30/2017 0815 | 03/30/2017 1850 |
| 460-130646-3 | GW-7-170330 | Water | 03/30/2017 0900 | 03/30/2017 1850 |
| 460-130646-4 | SB-10 (2-3)-170330 | Solid | 03/30/2017 1015 | 03/30/2017 1850 |
| 460-130646-5 | SB-9 (2-3)-170330 | Solid | 03/30/2017 1050 | 03/30/2017 1850 |
| 460-130646-6TB | Trip Blank | Water | 03/30/2017 1050 | 03/30/2017 1850 |

SAMPLE RESULTS

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (1-2)-170330

Lab Sample ID: 460-130646-1

Date Sampled: 03/30/2017 0800

Client Matrix: Solid

% Moisture: 12.8

Date Received: 03/30/2017 1850

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427946 | Instrument ID: CVOAMS4 |
| Prep Method: 5035 | Prep Batch: 460-427346 | Lab File ID: D34733.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.58 g |
| Analysis Date: 04/04/2017 0216 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/31/2017 0751 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|-----|
| 1,1,1-Trichloroethane | | 1.0 | U | 0.39 | 1.0 |
| 1,1,2,2-Tetrachloroethane | | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 2.4 | B | 0.45 | 1.0 |
| 1,1,2-Trichloroethane | | 1.0 | U | 0.29 | 1.0 |
| 1,1-Dichloroethane | | 1.0 | U | 0.35 | 1.0 |
| 1,1-Dichloroethene | | 1.0 | U | 0.42 | 1.0 |
| 1,2,3-Trichlorobenzene | | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | | 1.0 | U | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | | 1.0 | U | 0.48 | 1.0 |
| 1,2-Dichlorobenzene | | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | | 21 | U | 6.6 | 21 |
| 2-Butanone (MEK) | | 5.1 | U | 0.79 | 5.1 |
| 2-Hexanone | | 5.1 | U | 0.97 | 5.1 |
| 4-Methyl-2-pentanone (MIBK) | | 5.1 | U | 2.3 | 5.1 |
| Acetone | | 1.4 | J B | 1.1 | 5.1 |
| Benzene | | 1.0 | U | 0.21 | 1.0 |
| Bromoform | | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | | 1.0 | U | 0.33 | 1.0 |
| Carbon disulfide | | 1.0 | U | 0.44 | 1.0 |
| Carbon tetrachloride | | 1.0 | U | 0.44 | 1.0 |
| Chlorobenzene | | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | | 1.0 | U | 0.36 | 1.0 |
| Chloroform | | 1.0 | U | 0.22 | 1.0 |
| Chloromethane | | 1.0 | U | 0.39 | 1.0 |
| cis-1,2-Dichloroethene | | 1.0 | U | 0.23 | 1.0 |
| cis-1,3-Dichloropropene | | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | | 1.0 | U | 0.47 | 1.0 |
| Dichlorobromomethane | | 1.0 | U | 0.39 | 1.0 |
| Dichlorodifluoromethane | | 1.0 | U | 0.33 | 1.0 |
| Ethylbenzene | | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | | 5.1 | U | 0.92 | 5.1 |
| Methyl tert-butyl ether | | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | | 1.0 | U | 0.51 | 1.0 |
| Methylene Chloride | | 1.0 | U | 0.33 | 1.0 |
| m-Xylene & p-Xylene | | 1.0 | U | 0.11 | 1.0 |
| o-Xylene | | 1.0 | U | 0.16 | 1.0 |
| Styrene | | 1.0 | U | 0.15 | 1.0 |
| Tetrachloroethene | | 1.0 | U | 0.29 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (18.5-19.5)-170330

Lab Sample ID: 460-130646-2

Date Sampled: 03/30/2017 0815

Client Matrix: Solid

% Moisture: 17.5

Date Received: 03/30/2017 1850

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427946 | Instrument ID: CVOAMS4 |
| Prep Method: 5035 | Prep Batch: 460-427346 | Lab File ID: D34734.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.75 g |
| Analysis Date: 04/04/2017 0241 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/31/2017 0752 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|-----|
| 1,1,1-Trichloroethane | | 1.1 | U | 0.40 | 1.1 |
| 1,1,2,2-Tetrachloroethane | | 1.1 | U | 0.18 | 1.1 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 2.2 | B | 0.46 | 1.1 |
| 1,1,2-Trichloroethane | | 1.1 | U | 0.30 | 1.1 |
| 1,1-Dichloroethane | | 1.1 | U | 0.36 | 1.1 |
| 1,1-Dichloroethene | | 1.1 | U | 0.43 | 1.1 |
| 1,2,3-Trichlorobenzene | | 1.1 | U | 0.12 | 1.1 |
| 1,2,4-Trichlorobenzene | | 1.1 | U | 0.34 | 1.1 |
| 1,2-Dibromo-3-Chloropropane | | 1.1 | U | 0.50 | 1.1 |
| 1,2-Dichlorobenzene | | 1.1 | U | 0.15 | 1.1 |
| 1,2-Dichloroethane | | 1.1 | U | 0.12 | 1.1 |
| 1,2-Dichloropropane | | 1.1 | U | 0.18 | 1.1 |
| 1,3-Dichlorobenzene | | 1.1 | U | 0.13 | 1.1 |
| 1,4-Dichlorobenzene | | 1.1 | U | 0.14 | 1.1 |
| 1,4-Dioxane | | 21 | U | 6.7 | 21 |
| 2-Butanone (MEK) | | 6.3 | | 0.81 | 5.3 |
| 2-Hexanone | | 5.3 | U | 0.99 | 5.3 |
| 4-Methyl-2-pentanone (MIBK) | | 5.3 | U | 2.3 | 5.3 |
| Acetone | | 25 | B | 1.1 | 5.3 |
| Benzene | | 1.1 | U | 0.21 | 1.1 |
| Bromoform | | 1.1 | U | 0.14 | 1.1 |
| Bromomethane | | 1.1 | U | 0.34 | 1.1 |
| Carbon disulfide | | 1.1 | U | 0.45 | 1.1 |
| Carbon tetrachloride | | 1.1 | U | 0.45 | 1.1 |
| Chlorobenzene | | 1.1 | U | 0.15 | 1.1 |
| Chlorobromomethane | | 1.1 | U | 0.18 | 1.1 |
| Chlorodibromomethane | | 1.1 | U | 0.16 | 1.1 |
| Chloroethane | | 1.1 | U | 0.37 | 1.1 |
| Chloroform | | 1.1 | U | 0.22 | 1.1 |
| Chloromethane | | 1.1 | U | 0.40 | 1.1 |
| cis-1,2-Dichloroethene | | 1.1 | U | 0.23 | 1.1 |
| cis-1,3-Dichloropropene | | 1.1 | U | 0.16 | 1.1 |
| Cyclohexane | | 1.1 | U | 0.49 | 1.1 |
| Dichlorobromomethane | | 1.1 | U | 0.40 | 1.1 |
| Dichlorodifluoromethane | | 1.1 | U | 0.34 | 1.1 |
| Ethylbenzene | | 1.1 | U | 0.19 | 1.1 |
| Ethylene Dibromide | | 1.1 | U | 0.13 | 1.1 |
| Isopropylbenzene | | 1.1 | U | 0.18 | 1.1 |
| Methyl acetate | | 5.3 | U | 0.95 | 5.3 |
| Methyl tert-butyl ether | | 1.1 | U | 0.18 | 1.1 |
| Methylcyclohexane | | 1.1 | U | 0.53 | 1.1 |
| Methylene Chloride | | 1.1 | U | 0.34 | 1.1 |
| m-Xylene & p-Xylene | | 1.1 | U | 0.12 | 1.1 |
| o-Xylene | | 1.1 | U | 0.17 | 1.1 |
| Styrene | | 1.1 | U | 0.16 | 1.1 |
| Tetrachloroethene | | 1.1 | U | 0.30 | 1.1 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (18.5-19.5)-170330

Lab Sample ID: 460-130646-2

Date Sampled: 03/30/2017 0815

Client Matrix: Solid

% Moisture: 17.5

Date Received: 03/30/2017 1850

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427946 | Instrument ID: CVOAMS4 |
| Prep Method: 5035 | Prep Batch: 460-427346 | Lab File ID: D34734.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.75 g |
| Analysis Date: 04/04/2017 0241 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/31/2017 0752 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|------|-----|
| Toluene | | 1.1 | U | 0.20 | 1.1 |
| trans-1,2-Dichloroethene | | 1.1 | U | 0.41 | 1.1 |
| trans-1,3-Dichloropropene | | 1.1 | U | 0.11 | 1.1 |
| Trichloroethene | | 1.1 | U | 0.27 | 1.1 |
| Trichlorofluoromethane | | 1.1 | U | 0.36 | 1.1 |
| Vinyl chloride | | 1.1 | U | 0.41 | 1.1 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 89 | | 78 - 135 |
| 4-Bromofluorobenzene | 81 | | 67 - 126 |
| Dibromofluoromethane (Surr) | 86 | | 61 - 149 |
| Toluene-d8 (Surr) | 86 | | 73 - 121 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: GW-7-170330

Lab Sample ID: 460-130646-3

Date Sampled: 03/30/2017 0900

Client Matrix: Water

Date Received: 03/30/2017 1850

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-428182 | Instrument ID: CVOAMS13 |
| Prep Method: 5030C | Prep Batch: N/A | Lab File ID: P25849.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/05/2017 0713 | | Final Weight/Volume: 5 mL |
| Prep Date: 04/05/2017 0713 | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------------------------------------|---------------|-----------|-------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.19 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.080 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.24 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.34 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.35 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.27 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.23 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.22 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.25 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.18 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dioxane | 50 | U | 8.7 | 50 |
| 2-Butanone (MEK) | 5.0 | U | 2.2 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.72 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 0.63 | 5.0 |
| Acetone | 5.0 | U | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.090 | 1.0 |
| Bromoform | 1.0 | U | 0.18 | 1.0 |
| Bromomethane | 1.0 | U | 0.18 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.22 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.33 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.24 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.30 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.22 | 1.0 |
| Chloroethane | 1.0 | U | 0.37 | 1.0 |
| Chloroform | 1.0 | U | 0.22 | 1.0 |
| Chloromethane | 1.0 | U | 0.22 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.26 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.16 | 1.0 |
| Cyclohexane | 1.0 | U | 0.26 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.15 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.14 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.30 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.19 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.32 | 1.0 |
| Methyl acetate | 5.0 | U | 0.58 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.13 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.22 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.21 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.28 | 1.0 |
| o-Xylene | 1.0 | U | 0.32 | 1.0 |
| Styrene | 1.0 | U | 0.17 | 1.0 |
| Tetrachloroethene | 1.0 | U | 0.12 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: GW-7-170330

Lab Sample ID: 460-130646-3

Date Sampled: 03/30/2017 0900

Client Matrix: Water

Date Received: 03/30/2017 1850

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-428182 | Instrument ID: CVOAMS13 |
| Prep Method: 5030C | Prep Batch: N/A | Lab File ID: P25849.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/05/2017 0713 | | Final Weight/Volume: 5 mL |
| Prep Date: 04/05/2017 0713 | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------------------------|---------------|-----------|-------|-----|
| Toluene | 1.0 | U | 0.25 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.18 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.19 | 1.0 |
| Trichloroethene | 1.0 | U | 0.22 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.15 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.060 | 1.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 90 | | 74 - 132 |
| 4-Bromofluorobenzene | 97 | | 77 - 124 |
| Dibromofluoromethane (Surr) | 86 | | 72 - 131 |
| Toluene-d8 (Surr) | 91 | | 80 - 120 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-10 (2-3)-170330

Lab Sample ID: 460-130646-4

Date Sampled: 03/30/2017 1015

Client Matrix: Solid

% Moisture: 15.2

Date Received: 03/30/2017 1850

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427946 | Instrument ID: CVOAMS4 |
| Prep Method: 5035 | Prep Batch: 460-427346 | Lab File ID: D34735.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.79 g |
| Analysis Date: 04/04/2017 0305 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/31/2017 0753 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|-----|
| 1,1,1-Trichloroethane | | 1.0 | U | 0.39 | 1.0 |
| 1,1,2,2-Tetrachloroethane | | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 2.5 | B | 0.45 | 1.0 |
| 1,1,2-Trichloroethane | | 1.0 | U | 0.29 | 1.0 |
| 1,1-Dichloroethane | | 1.0 | U | 0.35 | 1.0 |
| 1,1-Dichloroethene | | 1.0 | U | 0.42 | 1.0 |
| 1,2,3-Trichlorobenzene | | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | | 1.0 | U | 0.33 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | | 1.0 | U | 0.48 | 1.0 |
| 1,2-Dichlorobenzene | | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | | 20 | U | 6.5 | 20 |
| 2-Butanone (MEK) | | 5.1 | U | 0.78 | 5.1 |
| 2-Hexanone | | 5.1 | U | 0.96 | 5.1 |
| 4-Methyl-2-pentanone (MIBK) | | 5.1 | U | 2.3 | 5.1 |
| Acetone | | 1.8 | J B | 1.1 | 5.1 |
| Benzene | | 1.0 | U | 0.20 | 1.0 |
| Bromoform | | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | | 1.0 | U | 0.33 | 1.0 |
| Carbon disulfide | | 1.0 | U | 0.44 | 1.0 |
| Carbon tetrachloride | | 1.0 | U | 0.44 | 1.0 |
| Chlorobenzene | | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | | 1.0 | U | 0.36 | 1.0 |
| Chloroform | | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | | 1.0 | U | 0.39 | 1.0 |
| cis-1,2-Dichloroethene | | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | | 1.0 | U | 0.47 | 1.0 |
| Dichlorobromomethane | | 1.0 | U | 0.39 | 1.0 |
| Dichlorodifluoromethane | | 1.0 | U | 0.33 | 1.0 |
| Ethylbenzene | | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | | 5.1 | U | 0.92 | 5.1 |
| Methyl tert-butyl ether | | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | | 1.0 | U | 0.51 | 1.0 |
| Methylene Chloride | | 0.33 | J | 0.33 | 1.0 |
| m-Xylene & p-Xylene | | 1.0 | U | 0.11 | 1.0 |
| o-Xylene | | 1.0 | U | 0.16 | 1.0 |
| Styrene | | 1.0 | U | 0.15 | 1.0 |
| Tetrachloroethene | | 1.0 | U | 0.29 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-9 (2-3)-170330

Lab Sample ID: 460-130646-5

Date Sampled: 03/30/2017 1050

Client Matrix: Solid

% Moisture: 15.4

Date Received: 03/30/2017 1850

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-427946 | Instrument ID: CVOAMS4 |
| Prep Method: 5035 | Prep Batch: 460-427346 | Lab File ID: D34736.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5.86 g |
| Analysis Date: 04/04/2017 0330 | | Final Weight/Volume: 5 mL |
| Prep Date: 03/31/2017 0754 | | |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------------------|--------------------|----------------|-----------|------|-----|
| 1,1,1-Trichloroethane | | 1.0 | U | 0.38 | 1.0 |
| 1,1,2,2-Tetrachloroethane | | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 3.2 | B | 0.44 | 1.0 |
| 1,1,2-Trichloroethane | | 1.0 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | | 1.0 | U | 0.34 | 1.0 |
| 1,1-Dichloroethene | | 1.0 | U | 0.41 | 1.0 |
| 1,2,3-Trichlorobenzene | | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | | 1.0 | U | 0.32 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | | 1.0 | U | 0.47 | 1.0 |
| 1,2-Dichlorobenzene | | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | | 20 | U | 6.4 | 20 |
| 2-Butanone (MEK) | | 5.0 | U | 0.78 | 5.0 |
| 2-Hexanone | | 5.0 | U | 0.95 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | | 5.0 | U | 2.2 | 5.0 |
| Acetone | | 1.4 | J B | 1.1 | 5.0 |
| Benzene | | 1.0 | U | 0.20 | 1.0 |
| Bromoform | | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | | 1.0 | U | 0.32 | 1.0 |
| Carbon disulfide | | 1.0 | U | 0.43 | 1.0 |
| Carbon tetrachloride | | 1.0 | U | 0.43 | 1.0 |
| Chlorobenzene | | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | | 1.0 | U | 0.35 | 1.0 |
| Chloroform | | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | | 1.0 | U | 0.38 | 1.0 |
| cis-1,2-Dichloroethene | | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | | 1.0 | U | 0.46 | 1.0 |
| Dichlorobromomethane | | 1.0 | U | 0.38 | 1.0 |
| Dichlorodifluoromethane | | 1.0 | U | 0.32 | 1.0 |
| Ethylbenzene | | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | | 5.0 | U | 0.91 | 5.0 |
| Methyl tert-butyl ether | | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | | 1.0 | U | 0.50 | 1.0 |
| Methylene Chloride | | 1.0 | U | 0.32 | 1.0 |
| m-Xylene & p-Xylene | | 1.0 | U | 0.11 | 1.0 |
| o-Xylene | | 1.0 | U | 0.16 | 1.0 |
| Styrene | | 1.0 | U | 0.15 | 1.0 |
| Tetrachloroethene | | 1.0 | U | 0.28 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: Trip Blank

Lab Sample ID: 460-130646-6TB

Date Sampled: 03/30/2017 1050

Client Matrix: Water

Date Received: 03/30/2017 1850

8260C Volatile Organic Compounds by GC/MS

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|----------|
| Analysis Method: | 8260C | Analysis Batch: | 460-428182 | Instrument ID: | CVOAMS13 |
| Prep Method: | 5030C | Prep Batch: | N/A | Lab File ID: | P25845.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 5 mL |
| Analysis Date: | 04/05/2017 0531 | | | Final Weight/Volume: | 5 mL |
| Prep Date: | 04/05/2017 0531 | | | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------------------------------------|---------------|-----------|-------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.19 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.080 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.24 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.34 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.35 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.27 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.23 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.22 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.25 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.18 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dioxane | 50 | U | 8.7 | 50 |
| 2-Butanone (MEK) | 5.0 | U | 2.2 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.72 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 0.63 | 5.0 |
| Acetone | 5.0 | U | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.090 | 1.0 |
| Bromoform | 1.0 | U | 0.18 | 1.0 |
| Bromomethane | 1.0 | U | 0.18 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.22 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.33 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.24 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.30 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.22 | 1.0 |
| Chloroethane | 1.0 | U | 0.37 | 1.0 |
| Chloroform | 1.0 | U | 0.22 | 1.0 |
| Chloromethane | 1.0 | U | 0.22 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.26 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.16 | 1.0 |
| Cyclohexane | 1.0 | U | 0.26 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.15 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.14 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.30 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.19 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.32 | 1.0 |
| Methyl acetate | 5.0 | U | 0.58 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.13 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.22 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.21 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.28 | 1.0 |
| o-Xylene | 1.0 | U | 0.32 | 1.0 |
| Styrene | 1.0 | U | 0.17 | 1.0 |
| Tetrachloroethene | 1.0 | U | 0.12 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: Trip Blank

Lab Sample ID: 460-130646-6TB

Date Sampled: 03/30/2017 1050

Client Matrix: Water

Date Received: 03/30/2017 1850

8260C Volatile Organic Compounds by GC/MS

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Analysis Method: 8260C | Analysis Batch: 460-428182 | Instrument ID: CVOAMS13 |
| Prep Method: 5030C | Prep Batch: N/A | Lab File ID: P25845.D |
| Dilution: 1.0 | | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/05/2017 0531 | | Final Weight/Volume: 5 mL |
| Prep Date: 04/05/2017 0531 | | |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------------------------|---------------|-----------|-------|-----|
| Toluene | 1.0 | U | 0.25 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.18 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.19 | 1.0 |
| Trichloroethene | 1.0 | U | 0.22 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.15 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.060 | 1.0 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------------|------|-----------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 90 | | 74 - 132 |
| 4-Bromofluorobenzene | 96 | | 77 - 124 |
| Dibromofluoromethane (Surr) | 86 | | 72 - 131 |
| Toluene-d8 (Surr) | 90 | | 80 - 120 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (1-2)-170330

Lab Sample ID: 460-130646-1

Date Sampled: 03/30/2017 0800

Client Matrix: Solid

% Moisture: 12.8

Date Received: 03/30/2017 1850

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427760 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-427681 | Lab File ID: L138704.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0284 g |
| Analysis Date: 04/03/2017 0646 | | Final Weight/Volume: 1 mL |
| Prep Date: 04/02/2017 0723 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 380 | U | 32 | 380 |
| 1,2,4,5-Tetrachlorobenzene | | 380 | U | 28 | 380 |
| 2,2'-oxybis[1-chloropropane] | | 380 | U | 16 | 380 |
| 2,3,4,6-Tetrachlorophenol | | 380 | U | 36 | 380 |
| 2,4,5-Trichlorophenol | | 380 | U | 38 | 380 |
| 2,4,6-Trichlorophenol | | 150 | U | 11 | 150 |
| 2,4-Dichlorophenol | | 150 | U | 8.9 | 150 |
| 2,4-Dimethylphenol | | 380 | U | 83 | 380 |
| 2,4-Dinitrophenol | | 300 | U | 290 | 300 |
| 2,4-Dinitrotoluene | | 77 | U | 15 | 77 |
| 2,6-Dinitrotoluene | | 77 | U | 20 | 77 |
| 2-Chloronaphthalene | | 380 | U | 8.6 | 380 |
| 2-Chlorophenol | | 380 | U | 9.6 | 380 |
| 2-Methylnaphthalene | | 380 | U | 8.4 | 380 |
| 2-Methylphenol | | 380 | U | 16 | 380 |
| 2-Nitroaniline | | 380 | U | 12 | 380 |
| 2-Nitrophenol | | 380 | U | 13 | 380 |
| 3,3'-Dichlorobenzidine | | 150 | U | 42 | 150 |
| 3-Nitroaniline | | 380 | U | 11 | 380 |
| 4,6-Dinitro-2-methylphenol | | 300 | U | 100 | 300 |
| 4-Bromophenyl phenyl ether | | 380 | U | 12 | 380 |
| 4-Chloro-3-methylphenol | | 380 | U | 16 | 380 |
| 4-Chloroaniline | | 380 | U | 9.7 | 380 |
| 4-Chlorophenyl phenyl ether | | 380 | U | 11 | 380 |
| 4-Methylphenol | | 380 | U | 10 | 380 |
| 4-Nitroaniline | | 380 | U | 14 | 380 |
| 4-Nitrophenol | | 770 | U | 180 | 770 |
| Acenaphthene | | 18 | J | 9.2 | 380 |
| Acenaphthylene | | 380 | U | 9.7 | 380 |
| Acetophenone | | 380 | U | 8.2 | 380 |
| Anthracene | | 36 | J | 36 | 380 |
| Atrazine | | 150 | U | 17 | 150 |
| Benzaldehyde | | 380 | U | 29 | 380 |
| Benzo[a]anthracene | | 230 | | 32 | 38 |
| Benzo[a]pyrene | | 210 | | 11 | 38 |
| Benzo[b]fluoranthene | | 320 | | 15 | 38 |
| Benzo[g,h,i]perylene | | 100 | J | 22 | 380 |
| Benzo[k]fluoranthene | | 100 | | 16 | 38 |
| Bis(2-chloroethoxy)methane | | 380 | U | 12 | 380 |
| Bis(2-chloroethyl)ether | | 38 | U | 8.9 | 38 |
| Bis(2-ethylhexyl) phthalate | | 380 | U | 15 | 380 |
| Butyl benzyl phthalate | | 380 | U | 12 | 380 |
| Caprolactam | | 380 | U | 27 | 380 |
| Carbazole | | 17 | J | 9.4 | 380 |
| Chrysene | | 270 | J | 10 | 380 |
| Dibenz(a,h)anthracene | | 38 | U | 20 | 38 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (1-2)-170330

Lab Sample ID: 460-130646-1

Date Sampled: 03/30/2017 0800

Client Matrix: Solid

% Moisture: 12.8

Date Received: 03/30/2017 1850

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427760 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-427681 | Lab File ID: L138704.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0284 g |
| Analysis Date: 04/03/2017 0646 | | Final Weight/Volume: 1 mL |
| Prep Date: 04/02/2017 0723 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 12 | J | 11 | 380 |
| Diethyl phthalate | | 380 | U | 11 | 380 |
| Dimethyl phthalate | | 380 | U | 11 | 380 |
| Di-n-butyl phthalate | | 57 | J | 11 | 380 |
| Di-n-octyl phthalate | | 380 | U | 19 | 380 |
| Fluoranthene | | 480 | | 11 | 380 |
| Fluorene | | 13 | J | 8.2 | 380 |
| Hexachlorobenzene | | 38 | U | 15 | 38 |
| Hexachlorobutadiene | | 77 | U | 11 | 77 |
| Hexachlorocyclopentadiene | | 380 | U | 24 | 380 |
| Hexachloroethane | | 38 | U | 14 | 38 |
| Indeno[1,2,3-cd]pyrene | | 120 | | 25 | 38 |
| Isophorone | | 150 | U * | 8.1 | 150 |
| Naphthalene | | 380 | U | 9.6 | 380 |
| Nitrobenzene | | 38 | U | 12 | 38 |
| N-Nitrosodi-n-propylamine | | 38 | U * | 13 | 38 |
| N-Nitrosodiphenylamine | | 380 | U | 34 | 380 |
| Pentachlorophenol | | 300 | U | 46 | 300 |
| Phenanthrene | | 250 | J | 10 | 380 |
| Phenol | | 380 | U | 12 | 380 |
| Pyrene | | 490 | | 17 | 380 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 70 | | 10 - 103 |
| 2-Fluorobiphenyl | 71 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 70 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 86 | | 37 - 94 |
| Phenol-d5 (Surr) | 79 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 80 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (18.5-19.5)-170330

Lab Sample ID: 460-130646-2

Date Sampled: 03/30/2017 0815

Client Matrix: Solid

% Moisture: 17.5

Date Received: 03/30/2017 1850

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427760 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-427681 | Lab File ID: L138705.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0367 g |
| Analysis Date: 04/03/2017 0707 | | Final Weight/Volume: 1 mL |
| Prep Date: 04/02/2017 0723 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 400 | U | 34 | 400 |
| 1,2,4,5-Tetrachlorobenzene | | 400 | U | 30 | 400 |
| 2,2'-oxybis[1-chloropropane] | | 400 | U | 16 | 400 |
| 2,3,4,6-Tetrachlorophenol | | 400 | U | 38 | 400 |
| 2,4,5-Trichlorophenol | | 400 | U | 40 | 400 |
| 2,4,6-Trichlorophenol | | 160 | U | 11 | 160 |
| 2,4-Dichlorophenol | | 160 | U | 9.4 | 160 |
| 2,4-Dimethylphenol | | 400 | U | 88 | 400 |
| 2,4-Dinitrophenol | | 320 | U | 300 | 320 |
| 2,4-Dinitrotoluene | | 81 | U | 16 | 81 |
| 2,6-Dinitrotoluene | | 81 | U | 21 | 81 |
| 2-Chloronaphthalene | | 400 | U | 9.1 | 400 |
| 2-Chlorophenol | | 400 | U | 10 | 400 |
| 2-Methylnaphthalene | | 9.5 | J | 8.8 | 400 |
| 2-Methylphenol | | 400 | U | 17 | 400 |
| 2-Nitroaniline | | 400 | U | 13 | 400 |
| 2-Nitrophenol | | 400 | U | 13 | 400 |
| 3,3'-Dichlorobenzidine | | 160 | U | 45 | 160 |
| 3-Nitroaniline | | 400 | U | 12 | 400 |
| 4,6-Dinitro-2-methylphenol | | 320 | U | 110 | 320 |
| 4-Bromophenyl phenyl ether | | 400 | U | 13 | 400 |
| 4-Chloro-3-methylphenol | | 400 | U | 17 | 400 |
| 4-Chloroaniline | | 400 | U | 10 | 400 |
| 4-Chlorophenyl phenyl ether | | 400 | U | 12 | 400 |
| 4-Methylphenol | | 400 | U | 11 | 400 |
| 4-Nitroaniline | | 400 | U | 15 | 400 |
| 4-Nitrophenol | | 810 | U | 190 | 810 |
| Acenaphthene | | 400 | U | 9.7 | 400 |
| Acenaphthylene | | 400 | U | 10 | 400 |
| Acetophenone | | 400 | U | 8.7 | 400 |
| Anthracene | | 400 | U | 38 | 400 |
| Atrazine | | 160 | U | 18 | 160 |
| Benzaldehyde | | 47 | J | 30 | 400 |
| Benzo[a]anthracene | | 84 | | 33 | 40 |
| Benzo[a]pyrene | | 68 | | 12 | 40 |
| Benzo[b]fluoranthene | | 100 | | 16 | 40 |
| Benzo[g,h,i]perylene | | 46 | J | 23 | 400 |
| Benzo[k]fluoranthene | | 52 | | 17 | 40 |
| Bis(2-chloroethoxy)methane | | 400 | U | 12 | 400 |
| Bis(2-chloroethyl)ether | | 40 | U | 9.4 | 40 |
| Bis(2-ethylhexyl) phthalate | | 400 | U | 16 | 400 |
| Butyl benzyl phthalate | | 400 | U | 12 | 400 |
| Caprolactam | | 400 | U | 29 | 400 |
| Carbazole | | 12 | J | 9.9 | 400 |
| Chrysene | | 110 | J | 11 | 400 |
| Dibenz(a,h)anthracene | | 40 | U | 21 | 40 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (18.5-19.5)-170330

Lab Sample ID: 460-130646-2

Date Sampled: 03/30/2017 0815

Client Matrix: Solid

% Moisture: 17.5

Date Received: 03/30/2017 1850

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427760 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-427681 | Lab File ID: L138705.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0367 g |
| Analysis Date: 04/03/2017 0707 | | Final Weight/Volume: 1 mL |
| Prep Date: 04/02/2017 0723 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 14 | J | 12 | 400 |
| Diethyl phthalate | | 400 | U | 11 | 400 |
| Dimethyl phthalate | | 400 | U | 12 | 400 |
| Di-n-butyl phthalate | | 400 | U | 12 | 400 |
| Di-n-octyl phthalate | | 400 | U | 20 | 400 |
| Fluoranthene | | 180 | J | 12 | 400 |
| Fluorene | | 400 | U | 8.7 | 400 |
| Hexachlorobenzene | | 40 | U | 16 | 40 |
| Hexachlorobutadiene | | 81 | U | 11 | 81 |
| Hexachlorocyclopentadiene | | 400 | U | 25 | 400 |
| Hexachloroethane | | 40 | U | 15 | 40 |
| Indeno[1,2,3-cd]pyrene | | 45 | | 27 | 40 |
| Isophorone | | 160 | U * | 8.6 | 160 |
| Naphthalene | | 21 | J | 10 | 400 |
| Nitrobenzene | | 40 | U | 13 | 40 |
| N-Nitrosodi-n-propylamine | | 40 | U * | 13 | 40 |
| N-Nitrosodiphenylamine | | 400 | U | 36 | 400 |
| Pentachlorophenol | | 320 | U | 48 | 320 |
| Phenanthrene | | 100 | J | 11 | 400 |
| Phenol | | 400 | U | 13 | 400 |
| Pyrene | | 170 | J | 18 | 400 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 79 | | 10 - 103 |
| 2-Fluorobiphenyl | 76 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 72 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 87 | | 37 - 94 |
| Phenol-d5 (Surr) | 79 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 84 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: GW-7-170330

Lab Sample ID: 460-130646-3

Date Sampled: 03/30/2017 0900

Client Matrix: Water

Date Received: 03/30/2017 1850

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427890 | Instrument ID: CBNAMS6 |
| Prep Method: 3510C | Prep Batch: 460-427482 | Lab File ID: M240045.D |
| Dilution: 1.0 | | Initial Weight/Volume: 250 mL |
| Analysis Date: 04/03/2017 2328 | | Final Weight/Volume: 2 mL |
| Prep Date: 03/31/2017 1646 | | Injection Volume: 5 uL |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|------------------------------|---------------|-----------|-------|-----|
| 1,1'-Biphenyl | 10 | U | 0.63 | 10 |
| 1,2,4,5-Tetrachlorobenzene | 10 | U | 0.43 | 10 |
| 2,2'-oxybis[1-chloropropane] | 10 | U | 0.93 | 10 |
| 2,3,4,6-Tetrachlorophenol | 10 | U | 0.69 | 10 |
| 2,4,5-Trichlorophenol | 10 | U | 0.49 | 10 |
| 2,4,6-Trichlorophenol | 10 | U | 0.53 | 10 |
| 2,4-Dichlorophenol | 10 | U | 0.63 | 10 |
| 2,4-Dimethylphenol | 10 | U | 0.91 | 10 |
| 2,4-Dinitrophenol | 20 | U | 2.4 | 20 |
| 2,4-Dinitrotoluene | 2.0 | U | 1.0 | 2.0 |
| 2,6-Dinitrotoluene | 2.0 | U | 0.88 | 2.0 |
| 2-Chloronaphthalene | 10 | U | 0.61 | 10 |
| 2-Chlorophenol | 10 | U | 0.74 | 10 |
| 2-Methylnaphthalene | 10 | U | 0.88 | 10 |
| 2-Methylphenol | 10 | U | 1.3 | 10 |
| 2-Nitroaniline | 10 | U | 0.65 | 10 |
| 2-Nitrophenol | 10 | U | 0.59 | 10 |
| 3,3'-Dichlorobenzidine | 10 | U | 1.0 | 10 |
| 3-Nitroaniline | 10 | U | 0.82 | 10 |
| 4,6-Dinitro-2-methylphenol | 20 | U | 2.0 | 20 |
| 4-Bromophenyl phenyl ether | 10 | U | 1.0 | 10 |
| 4-Chloro-3-methylphenol | 10 | U | 0.76 | 10 |
| 4-Chloroaniline | 10 | U | 0.73 | 10 |
| 4-Chlorophenyl phenyl ether | 10 | U | 0.96 | 10 |
| 4-Methylphenol | 10 | U | 0.87 | 10 |
| 4-Nitroaniline | 10 | U | 0.48 | 10 |
| 4-Nitrophenol | 20 | U | 4.7 | 20 |
| Acenaphthene | 10 | U | 0.88 | 10 |
| Acenaphthylene | 10 | U | 0.65 | 10 |
| Acetophenone | 10 | U | 1.0 | 10 |
| Anthracene | 10 | U | 0.57 | 10 |
| Atrazine | 2.0 | U | 0.77 | 2.0 |
| Benzaldehyde | 10 | U | 0.86 | 10 |
| Benzo[a]anthracene | 1.0 | U * | 0.55 | 1.0 |
| Benzo[a]pyrene | 1.0 | U | 0.16 | 1.0 |
| Benzo[b]fluoranthene | 1.0 | U | 0.44 | 1.0 |
| Benzo[g,h,i]perylene | 10 | U | 0.75 | 10 |
| Benzo[k]fluoranthene | 1.0 | U | 0.18 | 1.0 |
| Bis(2-chloroethoxy)methane | 10 | U | 0.69 | 10 |
| Bis(2-chloroethyl)ether | 1.0 | U | 0.12 | 1.0 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 0.72 | 2.0 |
| Butyl benzyl phthalate | 10 | U | 0.60 | 10 |
| Caprolactam | 10 | U | 1.1 | 10 |
| Carbazole | 10 | U | 0.85 | 10 |
| Chrysene | 2.0 | U * | 0.67 | 2.0 |
| Dibenz(a,h)anthracene | 1.0 | U | 0.090 | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: GW-7-170330

Lab Sample ID: 460-130646-3

Date Sampled: 03/30/2017 0900

Client Matrix: Water

Date Received: 03/30/2017 1850

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427890 | Instrument ID: CBNAMS6 |
| Prep Method: 3510C | Prep Batch: 460-427482 | Lab File ID: M240045.D |
| Dilution: 1.0 | | Initial Weight/Volume: 250 mL |
| Analysis Date: 04/03/2017 2328 | | Final Weight/Volume: 2 mL |
| Prep Date: 03/31/2017 1646 | | Injection Volume: 5 uL |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------------------------|---------------|-----------|-------------------|-----|
| Dibenzofuran | 10 | U * | 0.85 | 10 |
| Diethyl phthalate | 10 | U | 1.0 | 10 |
| Dimethyl phthalate | 10 | U | 0.98 | 10 |
| Di-n-butyl phthalate | 10 | U | 0.82 | 10 |
| Di-n-octyl phthalate | 10 | U | 0.69 | 10 |
| Fluoranthene | 10 | U | 0.72 | 10 |
| Fluorene | 10 | U | 0.80 | 10 |
| Hexachlorobenzene | 1.0 | U | 0.47 | 1.0 |
| Hexachlorobutadiene | 1.0 | U | 0.76 | 1.0 |
| Hexachlorocyclopentadiene | 10 | U | 0.61 | 10 |
| Hexachloroethane | 1.0 | U | 0.090 | 1.0 |
| Indeno[1,2,3-cd]pyrene | 1.0 | U | 0.21 | 1.0 |
| Isophorone | 10 | U | 0.67 | 10 |
| Naphthalene | 10 | U | 0.80 | 10 |
| Nitrobenzene | 1.0 | U | 0.49 | 1.0 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 0.83 | 1.0 |
| N-Nitrosodiphenylamine | 10 | U | 0.74 | 10 |
| Pentachlorophenol | 20 | U | 2.2 | 20 |
| Phenanthrene | 10 | U | 0.65 | 10 |
| Phenol | 10 | U | 0.41 | 10 |
| Pyrene | 10 | U | 0.83 | 10 |
| | | | | |
| Surrogate | %Rec | Qualifier | Acceptance Limits | |
| 2,4,6-Tribromophenol (Surr) | 72 | | 26 - 139 | |
| 2-Fluorobiphenyl | 62 | | 45 - 107 | |
| 2-Fluorophenol (Surr) | 36 | | 25 - 58 | |
| Nitrobenzene-d5 (Surr) | 70 | | 51 - 108 | |
| Phenol-d5 (Surr) | 25 | | 14 - 39 | |
| Terphenyl-d14 (Surr) | 89 | | 40 - 148 | |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-10 (2-3)-170330

Lab Sample ID: 460-130646-4

Date Sampled: 03/30/2017 1015

Client Matrix: Solid

% Moisture: 15.2

Date Received: 03/30/2017 1850

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427760 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-427681 | Lab File ID: L138706.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0298 g |
| Analysis Date: 04/03/2017 0728 | | Final Weight/Volume: 1 mL |
| Prep Date: 04/02/2017 0723 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 390 | U | 33 | 390 |
| 1,2,4,5-Tetrachlorobenzene | | 390 | U | 29 | 390 |
| 2,2'-oxybis[1-chloropropane] | | 390 | U | 16 | 390 |
| 2,3,4,6-Tetrachlorophenol | | 390 | U | 37 | 390 |
| 2,4,5-Trichlorophenol | | 390 | U | 39 | 390 |
| 2,4,6-Trichlorophenol | | 160 | U | 11 | 160 |
| 2,4-Dichlorophenol | | 160 | U | 9.2 | 160 |
| 2,4-Dimethylphenol | | 390 | U | 86 | 390 |
| 2,4-Dinitrophenol | | 310 | U | 290 | 310 |
| 2,4-Dinitrotoluene | | 79 | U | 15 | 79 |
| 2,6-Dinitrotoluene | | 79 | U | 21 | 79 |
| 2-Chloronaphthalene | | 390 | U | 8.8 | 390 |
| 2-Chlorophenol | | 390 | U | 9.9 | 390 |
| 2-Methylnaphthalene | | 11 | J | 8.6 | 390 |
| 2-Methylphenol | | 390 | U | 17 | 390 |
| 2-Nitroaniline | | 390 | U | 13 | 390 |
| 2-Nitrophenol | | 390 | U | 13 | 390 |
| 3,3'-Dichlorobenzidine | | 160 | U | 43 | 160 |
| 3-Nitroaniline | | 390 | U | 12 | 390 |
| 4,6-Dinitro-2-methylphenol | | 310 | U | 100 | 310 |
| 4-Bromophenyl phenyl ether | | 390 | U | 12 | 390 |
| 4-Chloro-3-methylphenol | | 390 | U | 17 | 390 |
| 4-Chloroaniline | | 390 | U | 10 | 390 |
| 4-Chlorophenyl phenyl ether | | 390 | U | 12 | 390 |
| 4-Methylphenol | | 390 | U | 11 | 390 |
| 4-Nitroaniline | | 390 | U | 15 | 390 |
| 4-Nitrophenol | | 790 | U | 190 | 790 |
| Acenaphthene | | 390 | U | 9.4 | 390 |
| Acenaphthylene | | 390 | U | 10 | 390 |
| Acetophenone | | 390 | U | 8.5 | 390 |
| Anthracene | | 390 | U | 37 | 390 |
| Atrazine | | 160 | U | 17 | 160 |
| Benzaldehyde | | 390 | U | 30 | 390 |
| Benzo[a]anthracene | | 180 | | 32 | 39 |
| Benzo[a]pyrene | | 170 | | 12 | 39 |
| Benzo[b]fluoranthene | | 250 | | 15 | 39 |
| Benzo[g,h,i]perylene | | 85 | J | 22 | 390 |
| Benzo[k]fluoranthene | | 72 | | 17 | 39 |
| Bis(2-chloroethoxy)methane | | 390 | U | 12 | 390 |
| Bis(2-chloroethyl)ether | | 39 | U | 9.2 | 39 |
| Bis(2-ethylhexyl) phthalate | | 160 | J | 15 | 390 |
| Butyl benzyl phthalate | | 390 | U | 12 | 390 |
| Caprolactam | | 390 | U | 28 | 390 |
| Carbazole | | 390 | U | 9.7 | 390 |
| Chrysene | | 200 | J | 11 | 390 |
| Dibenz(a,h)anthracene | | 27 | J | 20 | 39 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-10 (2-3)-170330

Lab Sample ID: 460-130646-4

Date Sampled: 03/30/2017 1015

Client Matrix: Solid

% Moisture: 15.2

Date Received: 03/30/2017 1850

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427760 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-427681 | Lab File ID: L138706.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0298 g |
| Analysis Date: 04/03/2017 0728 | | Final Weight/Volume: 1 mL |
| Prep Date: 04/02/2017 0723 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 15 | J | 12 | 390 |
| Diethyl phthalate | | 390 | U | 11 | 390 |
| Dimethyl phthalate | | 390 | U | 11 | 390 |
| Di-n-butyl phthalate | | 60 | J | 12 | 390 |
| Di-n-octyl phthalate | | 390 | U | 20 | 390 |
| Fluoranthene | | 320 | J | 12 | 390 |
| Fluorene | | 390 | U | 8.5 | 390 |
| Hexachlorobenzene | | 39 | U | 16 | 39 |
| Hexachlorobutadiene | | 79 | U | 11 | 79 |
| Hexachlorocyclopentadiene | | 390 | U | 24 | 390 |
| Hexachloroethane | | 39 | U | 14 | 39 |
| Indeno[1,2,3-cd]pyrene | | 97 | | 26 | 39 |
| Isophorone | | 160 | U * | 8.4 | 160 |
| Naphthalene | | 42 | J | 9.9 | 390 |
| Nitrobenzene | | 39 | U | 12 | 39 |
| N-Nitrosodi-n-propylamine | | 39 | U * | 13 | 39 |
| N-Nitrosodiphenylamine | | 390 | U | 35 | 390 |
| Pentachlorophenol | | 310 | U | 47 | 310 |
| Phenanthrene | | 160 | J | 10 | 390 |
| Phenol | | 390 | U | 13 | 390 |
| Pyrene | | 340 | J | 18 | 390 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 68 | | 10 - 103 |
| 2-Fluorobiphenyl | 72 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 70 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 89 | | 37 - 94 |
| Phenol-d5 (Surr) | 76 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 84 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-9 (2-3)-170330

Lab Sample ID: 460-130646-5

Date Sampled: 03/30/2017 1050

Client Matrix: Solid

% Moisture: 15.4

Date Received: 03/30/2017 1850

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427760 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-427681 | Lab File ID: L138707.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0425 g |
| Analysis Date: 04/03/2017 0749 | | Final Weight/Volume: 1 mL |
| Prep Date: 04/02/2017 0723 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|------------------------------|--------------------|----------------|-----------|-----|-----|
| 1,1'-Biphenyl | | 390 | U | 33 | 390 |
| 1,2,4,5-Tetrachlorobenzene | | 390 | U | 29 | 390 |
| 2,2'-oxybis[1-chloropropane] | | 390 | U | 16 | 390 |
| 2,3,4,6-Tetrachlorophenol | | 390 | U | 37 | 390 |
| 2,4,5-Trichlorophenol | | 390 | U | 39 | 390 |
| 2,4,6-Trichlorophenol | | 160 | U | 11 | 160 |
| 2,4-Dichlorophenol | | 160 | U | 9.2 | 160 |
| 2,4-Dimethylphenol | | 390 | U | 86 | 390 |
| 2,4-Dinitrophenol | | 310 | U | 290 | 310 |
| 2,4-Dinitrotoluene | | 79 | U | 15 | 79 |
| 2,6-Dinitrotoluene | | 79 | U | 21 | 79 |
| 2-Chloronaphthalene | | 390 | U | 8.8 | 390 |
| 2-Chlorophenol | | 390 | U | 9.9 | 390 |
| 2-Methylnaphthalene | | 15 | J | 8.6 | 390 |
| 2-Methylphenol | | 390 | U | 17 | 390 |
| 2-Nitroaniline | | 390 | U | 13 | 390 |
| 2-Nitrophenol | | 390 | U | 13 | 390 |
| 3,3'-Dichlorobenzidine | | 160 | U | 44 | 160 |
| 3-Nitroaniline | | 390 | U | 12 | 390 |
| 4,6-Dinitro-2-methylphenol | | 310 | U | 100 | 310 |
| 4-Bromophenyl phenyl ether | | 390 | U | 12 | 390 |
| 4-Chloro-3-methylphenol | | 390 | U | 17 | 390 |
| 4-Chloroaniline | | 390 | U | 10 | 390 |
| 4-Chlorophenyl phenyl ether | | 390 | U | 12 | 390 |
| 4-Methylphenol | | 390 | U | 11 | 390 |
| 4-Nitroaniline | | 390 | U | 15 | 390 |
| 4-Nitrophenol | | 790 | U | 190 | 790 |
| Acenaphthene | | 39 | J | 9.4 | 390 |
| Acenaphthylene | | 11 | J | 10 | 390 |
| Acetophenone | | 390 | U | 8.5 | 390 |
| Anthracene | | 100 | J | 37 | 390 |
| Atrazine | | 160 | U | 17 | 160 |
| Benzaldehyde | | 390 | U | 30 | 390 |
| Benzo[a]anthracene | | 450 | | 33 | 39 |
| Benzo[a]pyrene | | 420 | | 12 | 39 |
| Benzo[b]fluoranthene | | 540 | | 15 | 39 |
| Benzo[g,h,i]perylene | | 360 | J | 22 | 390 |
| Benzo[k]fluoranthene | | 240 | | 17 | 39 |
| Bis(2-chloroethoxy)methane | | 390 | U | 12 | 390 |
| Bis(2-chloroethyl)ether | | 39 | U | 9.2 | 39 |
| Bis(2-ethylhexyl) phthalate | | 95 | J | 15 | 390 |
| Butyl benzyl phthalate | | 390 | U | 12 | 390 |
| Caprolactam | | 390 | U | 28 | 390 |
| Carbazole | | 31 | J | 9.7 | 390 |
| Chrysene | | 520 | | 11 | 390 |
| Dibenz(a,h)anthracene | | 76 | | 20 | 39 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-9 (2-3)-170330

Lab Sample ID: 460-130646-5

Date Sampled: 03/30/2017 1050

Client Matrix: Solid

% Moisture: 15.4

Date Received: 03/30/2017 1850

8270D Semivolatile Organic Compounds (GC/MS)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8270D | Analysis Batch: 460-427760 | Instrument ID: CBNAMS12 |
| Prep Method: 3546 | Prep Batch: 460-427681 | Lab File ID: L138707.D |
| Dilution: 1.0 | | Initial Weight/Volume: 15.0425 g |
| Analysis Date: 04/03/2017 0749 | | Final Weight/Volume: 1 mL |
| Prep Date: 04/02/2017 0723 | | Injection Volume: 1 uL |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|---------------------------|--------------------|----------------|-----------|-----|-----|
| Dibenzofuran | | 28 | J | 12 | 390 |
| Diethyl phthalate | | 390 | U | 11 | 390 |
| Dimethyl phthalate | | 390 | U | 11 | 390 |
| Di-n-butyl phthalate | | 390 | U | 12 | 390 |
| Di-n-octyl phthalate | | 390 | U | 20 | 390 |
| Fluoranthene | | 910 | | 12 | 390 |
| Fluorene | | 33 | J | 8.5 | 390 |
| Hexachlorobenzene | | 39 | U | 16 | 39 |
| Hexachlorobutadiene | | 79 | U | 11 | 79 |
| Hexachlorocyclopentadiene | | 390 | U | 24 | 390 |
| Hexachloroethane | | 39 | U | 14 | 39 |
| Indeno[1,2,3-cd]pyrene | | 320 | | 26 | 39 |
| Isophorone | | 160 | U * | 8.4 | 160 |
| Naphthalene | | 32 | J | 9.9 | 390 |
| Nitrobenzene | | 39 | U | 12 | 39 |
| N-Nitrosodi-n-propylamine | | 39 | U * | 13 | 39 |
| N-Nitrosodiphenylamine | | 390 | U | 35 | 390 |
| Pentachlorophenol | | 310 | U | 47 | 310 |
| Phenanthrene | | 550 | | 10 | 390 |
| Phenol | | 390 | U | 13 | 390 |
| Pyrene | | 980 | | 18 | 390 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|-----------------------------|------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 55 | | 10 - 103 |
| 2-Fluorobiphenyl | 77 | | 38 - 95 |
| 2-Fluorophenol (Surr) | 68 | | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 93 | | 37 - 94 |
| Phenol-d5 (Surr) | 77 | | 32 - 91 |
| Terphenyl-d14 (Surr) | 89 | | 24 - 109 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (1-2)-170330

Lab Sample ID: 460-130646-1

Date Sampled: 03/30/2017 0800

Client Matrix: Solid

% Moisture: 12.8

Date Received: 03/30/2017 1850

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427686 | Instrument ID: CPESTGC5 |
| Prep Method: 3546 | Prep Batch: 460-427417 | Initial Weight/Volume: 15.0214 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 04/02/2017 1329 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 1147 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 21 | | 1.0 | 7.7 |
| 4,4'-DDE | | 77 | | 1.1 | 7.7 |
| 4,4'-DDT | | 65 | | 0.79 | 7.7 |
| Aldrin | | 7.7 | U | 0.93 | 7.7 |
| alpha-BHC | | 2.3 | U | 0.70 | 2.3 |
| beta-BHC | | 2.3 | U | 0.74 | 2.3 |
| Chlordane (technical) | | 77 | U | 34 | 77 |
| delta-BHC | | 2.3 | U | 0.84 | 2.3 |
| Dieldrin | | 2.3 | U | 1.0 | 2.3 |
| Endosulfan I | | 7.7 | U | 1.1 | 7.7 |
| Endosulfan II | | 7.7 | U | 1.2 | 7.7 |
| Endosulfan sulfate | | 7.7 | U | 0.89 | 7.7 |
| Endrin | | 7.7 | U | 0.97 | 7.7 |
| Endrin aldehyde | | 7.7 | U | 0.95 | 7.7 |
| Endrin ketone | | 7.7 | U | 1.1 | 7.7 |
| gamma-BHC (Lindane) | | 2.3 | U | 0.69 | 2.3 |
| Heptachlor | | 7.7 | U | 0.98 | 7.7 |
| Heptachlor epoxide | | 7.7 | U | 1.5 | 7.7 |
| Methoxychlor | | 7.7 | U | 1.6 | 7.7 |
| Toxaphene | | 77 | U | 22 | 77 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 165 | * | 50 - 150 |
| Tetrachloro-m-xylene | 109 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (1-2)-170330

Lab Sample ID: 460-130646-1

Date Sampled: 03/30/2017 0800

Client Matrix: Solid

% Moisture: 12.8

Date Received: 03/30/2017 1850

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-427686

Instrument ID: CPESTGC5

Prep Method: 3546

Prep Batch: 460-427417

Initial Weight/Volume: 15.0214 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/02/2017 1329

Injection Volume: 1 uL

Prep Date: 03/31/2017 1147

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 115 | | 50 - 150 |
| Tetrachloro-m-xylene | 99 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (18.5-19.5)-170330

Lab Sample ID: 460-130646-2

Date Sampled: 03/30/2017 0815

Client Matrix: Solid

% Moisture: 17.5

Date Received: 03/30/2017 1850

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427820 | Instrument ID: CPESTGC5 |
| Prep Method: 3546 | Prep Batch: 460-427417 | Initial Weight/Volume: 15.0241 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 04/03/2017 0802 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 1147 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 8.1 | U | 1.1 | 8.1 |
| 4,4'-DDE | | 8.1 | U | 1.2 | 8.1 |
| 4,4'-DDT | | 8.1 | U | 0.84 | 8.1 |
| Aldrin | | 8.1 | U | 0.98 | 8.1 |
| alpha-BHC | | 2.4 | U | 0.74 | 2.4 |
| beta-BHC | | 2.4 | U | 0.79 | 2.4 |
| Chlordane (technical) | | 81 | U | 36 | 81 |
| delta-BHC | | 2.4 | U | 0.88 | 2.4 |
| Dieldrin | | 2.4 | U | 1.1 | 2.4 |
| Endosulfan I | | 8.1 | U | 1.1 | 8.1 |
| Endosulfan II | | 8.1 | U | 1.3 | 8.1 |
| Endosulfan sulfate | | 8.1 | U | 0.94 | 8.1 |
| Endrin | | 8.1 | U | 1.0 | 8.1 |
| Endrin aldehyde | | 8.1 | U | 1.0 | 8.1 |
| Endrin ketone | | 8.1 | U | 1.1 | 8.1 |
| gamma-BHC (Lindane) | | 2.4 | U | 0.73 | 2.4 |
| Heptachlor | | 8.1 | U | 1.0 | 8.1 |
| Heptachlor epoxide | | 8.1 | U | 1.6 | 8.1 |
| Methoxychlor | | 8.1 | U | 1.7 | 8.1 |
| Toxaphene | | 81 | U | 24 | 81 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 139 | | 50 - 150 |
| Tetrachloro-m-xylene | 135 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (18.5-19.5)-170330

Lab Sample ID: 460-130646-2

Date Sampled: 03/30/2017 0815

Client Matrix: Solid

% Moisture: 17.5

Date Received: 03/30/2017 1850

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-427820

Instrument ID: CPESTGC5

Prep Method: 3546

Prep Batch: 460-427417

Initial Weight/Volume: 15.0241 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/03/2017 0802

Injection Volume: 1 uL

Prep Date: 03/31/2017 1147

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 126 | | 50 - 150 |
| Tetrachloro-m-xylene | 99 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: GW-7-170330

Lab Sample ID: 460-130646-3

Date Sampled: 03/30/2017 0900

Client Matrix: Water

Date Received: 03/30/2017 1850

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-428169 | Instrument ID: CPESTGC4 |
| Prep Method: 3510C | Prep Batch: 460-427822 | Initial Weight/Volume: 230 mL |
| Dilution: 1.0 | | Final Weight/Volume: 1 mL |
| Analysis Date: 04/05/2017 0156 | | Injection Volume: 1 uL |
| Prep Date: 04/03/2017 0830 | | Result Type: PRIMARY |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|------------------------|---------------|-----------|-------------------|-------|
| 4,4'-DDD | 0.022 | U | 0.0054 | 0.022 |
| 4,4'-DDE | 0.022 | U | 0.0043 | 0.022 |
| 4,4'-DDT | 0.022 | U | 0.0043 | 0.022 |
| Aldrin | 0.022 | U | 0.0043 | 0.022 |
| alpha-BHC | 0.022 | U | 0.0065 | 0.022 |
| beta-BHC | 0.022 | U | 0.0054 | 0.022 |
| Chlordane (technical) | 0.54 | U | 0.14 | 0.54 |
| delta-BHC | 0.022 | U | 0.0065 | 0.022 |
| Dieldrin | 0.022 | U | 0.0043 | 0.022 |
| Endosulfan I | 0.022 | U | 0.0054 | 0.022 |
| Endosulfan II | 0.022 | U | 0.0043 | 0.022 |
| Endosulfan sulfate | 0.022 | U | 0.0054 | 0.022 |
| Endrin | 0.022 | U | 0.0043 | 0.022 |
| Endrin aldehyde | 0.022 | U | 0.0043 | 0.022 |
| Endrin ketone | 0.022 | U | 0.0043 | 0.022 |
| gamma-BHC (Lindane) | 0.022 | U | 0.0043 | 0.022 |
| Heptachlor | 0.022 | U | 0.0043 | 0.022 |
| Heptachlor epoxide | 0.022 | U | 0.0043 | 0.022 |
| Methoxychlor | 0.022 | U | 0.0043 | 0.022 |
| Toxaphene | 0.54 | U | 0.065 | 0.54 |
| Surrogate | %Rec | Qualifier | Acceptance Limits | |
| DCB Decachlorobiphenyl | 123 | | 10 - 150 | |
| Tetrachloro-m-xylene | 110 | | 16 - 150 | |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: GW-7-170330

Lab Sample ID: 460-130646-3

Date Sampled: 03/30/2017 0900

Client Matrix: Water

Date Received: 03/30/2017 1850

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-428169 | Instrument ID: CPESTGC4 |
| Prep Method: 3510C | Prep Batch: 460-427822 | Initial Weight/Volume: 230 mL |
| Dilution: 1.0 | | Final Weight/Volume: 1 mL |
| Analysis Date: 04/05/2017 0156 | | Injection Volume: 1 uL |
| Prep Date: 04/03/2017 0830 | | Result Type: SECONDARY |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 113 | | 10 - 150 |
| Tetrachloro-m-xylene | 105 | | 16 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-10 (2-3)-170330

Lab Sample ID: 460-130646-4

Date Sampled: 03/30/2017 1015

Client Matrix: Solid

% Moisture: 15.2

Date Received: 03/30/2017 1850

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427686 | Instrument ID: CPESTGC5 |
| Prep Method: 3546 | Prep Batch: 460-427417 | Initial Weight/Volume: 15.0232 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 04/02/2017 1355 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 1147 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 7.9 | U | 1.0 | 7.9 |
| 4,4'-DDE | | 7.9 | U | 1.1 | 7.9 |
| 4,4'-DDT | | 7.9 | U | 0.81 | 7.9 |
| Aldrin | | 7.9 | U | 0.95 | 7.9 |
| alpha-BHC | | 2.4 | U | 0.72 | 2.4 |
| beta-BHC | | 2.4 | U | 0.77 | 2.4 |
| Chlordane (technical) | | 79 | U | 35 | 79 |
| delta-BHC | | 2.4 | U | 0.86 | 2.4 |
| Dieldrin | | 2.4 | U | 1.0 | 2.4 |
| Endosulfan I | | 7.9 | U | 1.1 | 7.9 |
| Endosulfan II | | 7.9 | U | 1.2 | 7.9 |
| Endosulfan sulfate | | 7.9 | U | 0.92 | 7.9 |
| Endrin | | 7.9 | U | 1.0 | 7.9 |
| Endrin aldehyde | | 7.9 | U | 0.98 | 7.9 |
| Endrin ketone | | 7.9 | U | 1.1 | 7.9 |
| gamma-BHC (Lindane) | | 2.4 | U | 0.71 | 2.4 |
| Heptachlor | | 7.9 | U | 1.0 | 7.9 |
| Heptachlor epoxide | | 7.9 | U | 1.5 | 7.9 |
| Methoxychlor | | 7.9 | U | 1.7 | 7.9 |
| Toxaphene | | 79 | U | 23 | 79 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 121 | p | 50 - 150 |
| Tetrachloro-m-xylene | 123 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-10 (2-3)-170330

Lab Sample ID: 460-130646-4

Date Sampled: 03/30/2017 1015

Client Matrix: Solid

% Moisture: 15.2

Date Received: 03/30/2017 1850

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-427686

Instrument ID: CPESTGC5

Prep Method: 3546

Prep Batch: 460-427417

Initial Weight/Volume: 15.0232 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/02/2017 1355

Injection Volume: 1 uL

Prep Date: 03/31/2017 1147

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 434 | * | 50 - 150 |
| Tetrachloro-m-xylene | 123 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-9 (2-3)-170330

Lab Sample ID: 460-130646-5

Date Sampled: 03/30/2017 1050

Client Matrix: Solid

% Moisture: 15.4

Date Received: 03/30/2017 1850

8081B Organochlorine Pesticides (GC)

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8081B | Analysis Batch: 460-427686 | Instrument ID: CPESTGC5 |
| Prep Method: 3546 | Prep Batch: 460-427417 | Initial Weight/Volume: 15.0222 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 04/02/2017 1407 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 1147 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|-----------------------|--------------------|----------------|-----------|------|-----|
| 4,4'-DDD | | 8.2 | | 1.0 | 7.9 |
| 4,4'-DDE | | 47 | | 1.1 | 7.9 |
| 4,4'-DDT | | 81 | | 0.81 | 7.9 |
| Aldrin | | 7.9 | U | 0.96 | 7.9 |
| alpha-BHC | | 2.4 | U | 0.72 | 2.4 |
| beta-BHC | | 2.4 | U | 0.77 | 2.4 |
| Chlordane (technical) | | 79 | U | 35 | 79 |
| delta-BHC | | 2.4 | U | 0.86 | 2.4 |
| Dieldrin | | 2.4 | | 1.0 | 2.4 |
| Endosulfan I | | 7.9 | U | 1.1 | 7.9 |
| Endosulfan II | | 7.9 | U | 1.2 | 7.9 |
| Endosulfan sulfate | | 7.9 | U | 0.92 | 7.9 |
| Endrin | | 7.9 | U | 1.0 | 7.9 |
| Endrin aldehyde | | 7.9 | U | 0.98 | 7.9 |
| Endrin ketone | | 7.9 | U | 1.1 | 7.9 |
| gamma-BHC (Lindane) | | 2.4 | U | 0.71 | 2.4 |
| Heptachlor | | 7.9 | U | 1.0 | 7.9 |
| Heptachlor epoxide | | 7.9 | U | 1.5 | 7.9 |
| Methoxychlor | | 7.9 | U | 1.7 | 7.9 |
| Toxaphene | | 79 | U | 23 | 79 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 112 | | 50 - 150 |
| Tetrachloro-m-xylene | 85 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-9 (2-3)-170330

Lab Sample ID: 460-130646-5

Date Sampled: 03/30/2017 1050

Client Matrix: Solid

% Moisture: 15.4

Date Received: 03/30/2017 1850

8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-427686

Instrument ID: CPESTGC5

Prep Method: 3546

Prep Batch: 460-427417

Initial Weight/Volume: 15.0222 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/02/2017 1407

Injection Volume: 1 uL

Prep Date: 03/31/2017 1147

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 97 | | 50 - 150 |
| Tetrachloro-m-xylene | 81 | | 47 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (1-2)-170330

Lab Sample ID: 460-130646-1

Date Sampled: 03/30/2017 0800

Client Matrix: Solid

% Moisture: 12.8

Date Received: 03/30/2017 1850

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-427684 | Instrument ID: CPESTGC8 |
| Prep Method: 3546 | Prep Batch: 460-427415 | Initial Weight/Volume: 15.0214 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 04/02/2017 0905 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 1143 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 77 | U | 10 | 77 |
| Aroclor 1221 | | 77 | U | 10 | 77 |
| Aroclor 1232 | | 77 | U | 10 | 77 |
| Aroclor 1242 | | 77 | U | 10 | 77 |
| Aroclor 1248 | | 77 | U | 10 | 77 |
| Aroclor 1254 | | 77 | U | 11 | 77 |
| Aroclor 1260 | | 77 | U | 11 | 77 |
| Aroclor 1268 | | 77 | U | 11 | 77 |
| Aroclor-1262 | | 77 | U | 11 | 77 |
| Polychlorinated biphenyls, Total | | 77 | U | 11 | 77 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 140 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (1-2)-170330

Lab Sample ID: 460-130646-1

Date Sampled: 03/30/2017 0800

Client Matrix: Solid

% Moisture: 12.8

Date Received: 03/30/2017 1850

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-427684

Instrument ID: CPESTGC8

Prep Method: 3546

Prep Batch: 460-427415

Initial Weight/Volume: 15.0214 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/02/2017 0905

Injection Volume: 1 uL

Prep Date: 03/31/2017 1143

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 127 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (18.5-19.5)-170330

Lab Sample ID: 460-130646-2

Date Sampled: 03/30/2017 0815

Client Matrix: Solid

% Moisture: 17.5

Date Received: 03/30/2017 1850

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-427839 | Instrument ID: CPESTGC8 |
| Prep Method: 3546 | Prep Batch: 460-427415 | Initial Weight/Volume: 15.0241 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 04/03/2017 1137 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 1143 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 81 | U | 11 | 81 |
| Aroclor 1221 | | 81 | U | 11 | 81 |
| Aroclor 1232 | | 81 | U | 11 | 81 |
| Aroclor 1242 | | 81 | U | 11 | 81 |
| Aroclor 1248 | | 81 | U | 11 | 81 |
| Aroclor 1254 | | 81 | U | 11 | 81 |
| Aroclor 1260 | | 81 | U | 11 | 81 |
| Aroclor 1268 | | 81 | U | 11 | 81 |
| Aroclor-1262 | | 81 | U | 11 | 81 |
| Polychlorinated biphenyls, Total | | 81 | U | 11 | 81 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 101 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (18.5-19.5)-170330

Lab Sample ID: 460-130646-2

Date Sampled: 03/30/2017 0815

Client Matrix: Solid

% Moisture: 17.5

Date Received: 03/30/2017 1850

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-427839

Instrument ID: CPESTGC8

Prep Method: 3546

Prep Batch: 460-427415

Initial Weight/Volume: 15.0241 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/03/2017 1137

Injection Volume: 1 uL

Prep Date: 03/31/2017 1143

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 101 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: GW-7-170330

Lab Sample ID: 460-130646-3

Date Sampled: 03/30/2017 0900

Client Matrix: Water

Date Received: 03/30/2017 1850

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-427837 | Instrument ID: CPESTGC11 |
| Prep Method: 3510C | Prep Batch: 460-427824 | Initial Weight/Volume: 245 mL |
| Dilution: 1.0 | | Final Weight/Volume: 1 mL |
| Analysis Date: 04/03/2017 1843 | | Injection Volume: 1 uL |
| Prep Date: 04/03/2017 0839 | | Result Type: PRIMARY |

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|----------------------------------|---------------|-----------|-------|------|
| Aroclor 1016 | 0.41 | U | 0.10 | 0.41 |
| Aroclor 1221 | 0.41 | U | 0.10 | 0.41 |
| Aroclor 1232 | 0.41 | U | 0.10 | 0.41 |
| Aroclor 1242 | 0.41 | U | 0.10 | 0.41 |
| Aroclor 1248 | 0.41 | U | 0.10 | 0.41 |
| Aroclor 1254 | 0.41 | U | 0.086 | 0.41 |
| Aroclor 1260 | 0.41 | U | 0.086 | 0.41 |
| Aroclor 1268 | 0.41 | U | 0.086 | 0.41 |
| Aroclor-1262 | 0.41 | U | 0.086 | 0.41 |
| Polychlorinated biphenyls, Total | 0.41 | U | 0.10 | 0.41 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 99 | | 10 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: GW-7-170330

Lab Sample ID: 460-130646-3

Date Sampled: 03/30/2017 0900

Client Matrix: Water

Date Received: 03/30/2017 1850

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-427837 | Instrument ID: CPESTGC11 |
| Prep Method: 3510C | Prep Batch: 460-427824 | Initial Weight/Volume: 245 mL |
| Dilution: 1.0 | | Final Weight/Volume: 1 mL |
| Analysis Date: 04/03/2017 1843 | | Injection Volume: 1 uL |
| Prep Date: 04/03/2017 0839 | | Result Type: SECONDARY |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 91 | | 10 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-10 (2-3)-170330

Lab Sample ID: 460-130646-4

Date Sampled: 03/30/2017 1015

Client Matrix: Solid

% Moisture: 15.2

Date Received: 03/30/2017 1850

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-427684 | Instrument ID: CPESTGC8 |
| Prep Method: 3546 | Prep Batch: 460-427415 | Initial Weight/Volume: 15.0232 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 04/02/2017 1453 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 1143 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 79 | U | 10 | 79 |
| Aroclor 1221 | | 79 | U | 10 | 79 |
| Aroclor 1232 | | 79 | U | 10 | 79 |
| Aroclor 1242 | | 79 | U | 10 | 79 |
| Aroclor 1248 | | 79 | U | 10 | 79 |
| Aroclor 1254 | | 79 | U | 11 | 79 |
| Aroclor 1260 | | 79 | U | 11 | 79 |
| Aroclor 1268 | | 79 | U | 11 | 79 |
| Aroclor-1262 | | 79 | U | 11 | 79 |
| Polychlorinated biphenyls, Total | | 79 | U | 11 | 79 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 146 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-10 (2-3)-170330

Lab Sample ID: 460-130646-4

Date Sampled: 03/30/2017 1015

Client Matrix: Solid

% Moisture: 15.2

Date Received: 03/30/2017 1850

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-427684

Instrument ID: CPESTGC8

Prep Method: 3546

Prep Batch: 460-427415

Initial Weight/Volume: 15.0232 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/02/2017 1453

Injection Volume: 1 uL

Prep Date: 03/31/2017 1143

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 144 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-9 (2-3)-170330

Lab Sample ID: 460-130646-5

Date Sampled: 03/30/2017 1050

Client Matrix: Solid

% Moisture: 15.4

Date Received: 03/30/2017 1850

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| | | |
|--------------------------------|----------------------------|----------------------------------|
| Analysis Method: 8082A | Analysis Batch: 460-427684 | Instrument ID: CPESTGC8 |
| Prep Method: 3546 | Prep Batch: 460-427415 | Initial Weight/Volume: 15.0222 g |
| Dilution: 1.0 | | Final Weight/Volume: 10 mL |
| Analysis Date: 04/02/2017 1511 | | Injection Volume: 1 uL |
| Prep Date: 03/31/2017 1143 | | Result Type: PRIMARY |

| Analyte | DryWt Corrected: Y | Result (ug/Kg) | Qualifier | MDL | RL |
|----------------------------------|--------------------|----------------|-----------|-----|----|
| Aroclor 1016 | | 79 | U | 11 | 79 |
| Aroclor 1221 | | 79 | U | 11 | 79 |
| Aroclor 1232 | | 79 | U | 11 | 79 |
| Aroclor 1242 | | 79 | U | 11 | 79 |
| Aroclor 1248 | | 79 | U | 11 | 79 |
| Aroclor 1254 | | 79 | U | 11 | 79 |
| Aroclor 1260 | | 79 | U | 11 | 79 |
| Aroclor 1268 | | 79 | U | 11 | 79 |
| Aroclor-1262 | | 79 | U | 11 | 79 |
| Polychlorinated biphenyls, Total | | 79 | U | 11 | 79 |

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 104 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-9 (2-3)-170330

Lab Sample ID: 460-130646-5

Date Sampled: 03/30/2017 1050

Client Matrix: Solid

% Moisture: 15.4

Date Received: 03/30/2017 1850

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-427684

Instrument ID: CPESTGC8

Prep Method: 3546

Prep Batch: 460-427415

Initial Weight/Volume: 15.0222 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/02/2017 1511

Injection Volume: 1 uL

Prep Date: 03/31/2017 1143

Result Type: SECONDARY

| Surrogate | %Rec | Qualifier | Acceptance Limits |
|------------------------|------|-----------|-------------------|
| DCB Decachlorobiphenyl | 103 | | 35 - 150 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (1-2)-170330

Lab Sample ID: 460-130646-1

Date Sampled: 03/30/2017 0800

Client Matrix: Solid

% Moisture: 12.8

Date Received: 03/30/2017 1850

6010C Metals (ICP)

Analysis Method: 6010C Analysis Batch: 460-427721 Instrument ID: ICP5
Prep Method: 3050B Prep Batch: 460-427665 Lab File ID: 427664D1.asc
Dilution: 4.0 Initial Weight/Volume: 1.31 g
Analysis Date: 04/02/2017 1430 Final Weight/Volume: 50 mL
Prep Date: 04/01/2017 1950

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 12400 | | 18.0 | 35.0 |
| Antimony | | 3.5 | U | 1.4 | 3.5 |
| Arsenic | | 11.8 | | 0.86 | 2.6 |
| Barium | | 101 | | 1.3 | 35.0 |
| Beryllium | | 0.51 | | 0.30 | 0.35 |
| Cadmium | | 0.70 | U | 0.37 | 0.70 |
| Calcium | | 2220 | | 51.8 | 875 |
| Chromium | | 22.6 | | 0.85 | 1.8 |
| Cobalt | | 7.4 | J | 1.0 | 8.8 |
| Copper | | 35.4 | | 1.1 | 4.4 |
| Iron | | 18100 | | 19.8 | 26.3 |
| Lead | | 110 | | 0.69 | 1.8 |
| Magnesium | | 3350 | | 43.7 | 875 |
| Manganese | | 350 | | 0.92 | 2.6 |
| Nickel | | 19.7 | | 1.3 | 7.0 |
| Potassium | | 1620 | | 26.5 | 875 |
| Selenium | | 3.5 | U | 1.2 | 3.5 |
| Silver | | 1.8 | U | 0.31 | 1.8 |
| Sodium | | 875 | U | 59.3 | 875 |
| Thallium | | 3.5 | U | 1.5 | 3.5 |
| Vanadium | | 53.7 | | 0.88 | 8.8 |
| Zinc | | 82.6 | | 1.3 | 5.3 |

7471B Mercury (CVAA)

Analysis Method: 7471B Analysis Batch: 460-427860 Instrument ID: LEEMAN5
Prep Method: 7471B Prep Batch: 460-427784 Lab File ID: 427784HG1.PRN
Dilution: 1.0 Initial Weight/Volume: 0.62 g
Analysis Date: 04/03/2017 0851 Final Weight/Volume: 50 mL
Prep Date: 04/03/2017 0411

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.57 | | 0.012 | 0.019 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-7 (18.5-19.5)-170330

Lab Sample ID: 460-130646-2

Date Sampled: 03/30/2017 0815

Client Matrix: Solid

% Moisture: 17.5

Date Received: 03/30/2017 1850

6010C Metals (ICP)

Analysis Method: 6010C Analysis Batch: 460-427721 Instrument ID: ICP5
Prep Method: 3050B Prep Batch: 460-427665 Lab File ID: 427664D1.asc
Dilution: 4.0 Initial Weight/Volume: 1.28 g
Analysis Date: 04/02/2017 1434 Final Weight/Volume: 50 mL
Prep Date: 04/01/2017 1950

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 10100 | | 19.5 | 37.9 |
| Antimony | | 3.8 | U | 1.5 | 3.8 |
| Arsenic | | 3.7 | | 0.93 | 2.8 |
| Barium | | 96.7 | | 1.4 | 37.9 |
| Beryllium | | 0.36 | J | 0.32 | 0.38 |
| Cadmium | | 0.76 | U | 0.40 | 0.76 |
| Calcium | | 9360 | | 56.1 | 947 |
| Chromium | | 14.9 | | 0.92 | 1.9 |
| Cobalt | | 6.7 | J | 1.1 | 9.5 |
| Copper | | 49.6 | | 1.2 | 4.7 |
| Iron | | 20000 | | 21.4 | 28.4 |
| Lead | | 96.7 | | 0.74 | 1.9 |
| Magnesium | | 2570 | | 47.3 | 947 |
| Manganese | | 551 | | 0.99 | 2.8 |
| Nickel | | 15.1 | | 1.4 | 7.6 |
| Potassium | | 1400 | | 28.7 | 947 |
| Selenium | | 3.8 | U | 1.3 | 3.8 |
| Silver | | 1.9 | U | 0.33 | 1.9 |
| Sodium | | 91.7 | J | 64.1 | 947 |
| Thallium | | 3.8 | U | 1.7 | 3.8 |
| Vanadium | | 21.0 | | 0.95 | 9.5 |
| Zinc | | 70.0 | | 1.4 | 5.7 |

7471B Mercury (CVAA)

Analysis Method: 7471B Analysis Batch: 460-427860 Instrument ID: LEEMAN5
Prep Method: 7471B Prep Batch: 460-427784 Lab File ID: 427784HG1.PRN
Dilution: 1.0 Initial Weight/Volume: 0.60 g
Analysis Date: 04/03/2017 0853 Final Weight/Volume: 50 mL
Prep Date: 04/03/2017 0411

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.79 | | 0.013 | 0.021 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: GW-7-170330

Lab Sample ID: 460-130646-3

Date Sampled: 03/30/2017 0900

Client Matrix: Water

Date Received: 03/30/2017 1850

6020A Metals (ICP/MS)

Analysis Method: 6020A Analysis Batch: 460-427907 Instrument ID: ICPMS3
Prep Method: 3010A Prep Batch: 460-427669 Lab File ID: 142SMPL.d
Dilution: 2.0 Initial Weight/Volume: 50 mL
Analysis Date: 04/03/2017 1805 Final Weight/Volume: 50 mL
Prep Date: 04/02/2017 0030

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------|---------------|-----------|------|------|
| Aluminum | 426 | | 18.2 | 40.0 |
| Antimony | 2.0 | U | 0.62 | 2.0 |
| Arsenic | 1.1 | J | 0.64 | 2.0 |
| Barium | 104 | | 1.2 | 4.0 |
| Beryllium | 0.80 | U | 0.24 | 0.80 |
| Cadmium | 2.0 | U | 0.71 | 2.0 |
| Calcium | 191000 | | 60.5 | 200 |
| Chromium | 4.0 | U | 1.3 | 4.0 |
| Cobalt | 1.5 | J | 1.3 | 4.0 |
| Copper | 2.8 | J | 1.4 | 4.0 |
| Iron | 1160 | | 42.4 | 120 |
| Lead | 4.9 | | 0.38 | 1.2 |
| Magnesium | 19000 | | 63.6 | 200 |
| Manganese | 5050 | | 2.5 | 8.0 |
| Nickel | 6.9 | | 1.4 | 4.0 |
| Potassium | 18300 | | 91.4 | 200 |
| Selenium | 1.4 | J | 0.73 | 10.0 |
| Silver | 2.0 | U | 1.3 | 2.0 |
| Sodium | 29800 | | 69.0 | 200 |
| Thallium | 0.80 | U | 0.26 | 0.80 |
| Vanadium | 2.5 | J | 1.9 | 4.0 |
| Zinc | 16.0 | U | 7.0 | 16.0 |

6020A Metals (ICP/MS)-Dissolved

Analysis Method: 6020A Analysis Batch: 460-428349 Instrument ID: ICPMS3
Prep Method: 3010A Prep Batch: 460-428255 Lab File ID: 203SMPL.d
Dilution: 2.0 Initial Weight/Volume: 10 mL
Analysis Date: 04/05/2017 0323 Final Weight/Volume: 10 mL
Prep Date: 04/05/2017 0047

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------|---------------|-----------|------|------|
| Aluminum | 177 | | 18.2 | 40.0 |
| Antimony | 2.0 | U | 0.62 | 2.0 |
| Arsenic | 0.93 | J | 0.64 | 2.0 |
| Barium | 97.8 | | 1.2 | 4.0 |
| Beryllium | 0.80 | U | 0.24 | 0.80 |
| Cadmium | 2.0 | U | 0.71 | 2.0 |
| Calcium | 187000 | | 60.5 | 200 |
| Chromium | 4.0 | U | 1.3 | 4.0 |
| Cobalt | 1.3 | J | 1.3 | 4.0 |
| Copper | 2.0 | J | 1.4 | 4.0 |
| Iron | 379 | | 42.4 | 120 |
| Lead | 4.4 | | 0.38 | 1.2 |
| Magnesium | 18200 | | 63.6 | 200 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: GW-7-170330

Lab Sample ID: 460-130646-3

Date Sampled: 03/30/2017 0900

Client Matrix: Water

Date Received: 03/30/2017 1850

6020A Metals (ICP/MS)-Dissolved

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|-----------|---------------|-----------|------|------|
| Manganese | 4880 | | 2.5 | 8.0 |
| Nickel | 5.9 | | 1.4 | 4.0 |
| Potassium | 18000 | | 91.4 | 200 |
| Selenium | 1.5 | J | 0.73 | 10.0 |
| Silver | 2.0 | U | 1.3 | 2.0 |
| Thallium | 0.80 | U | 0.26 | 0.80 |
| Vanadium | 4.0 | U | 1.9 | 4.0 |
| Zinc | 16.0 | U | 7.0 | 16.0 |

Analysis Method: 6020A

Analysis Batch: 460-428431

Instrument ID: ICPMS2

Prep Method: 3010A

Prep Batch: 460-428255

Lab File ID: 045SMPL.D

Dilution: 2.0

Initial Weight/Volume: 10 mL

Analysis Date: 04/05/2017 1708

Final Weight/Volume: 10 mL

Prep Date: 04/05/2017 0047

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|------|-----|
| Sodium | 25600 | | 69.0 | 200 |

7470A Mercury (CVAA)

Analysis Method: 7470A

Analysis Batch: 460-427923

Instrument ID: LEEMAN6

Prep Method: 7470A

Prep Batch: 460-427871

Lab File ID: 427868hg1.CSV

Dilution: 1.0

Initial Weight/Volume: 30 mL

Analysis Date: 04/03/2017 1700

Final Weight/Volume: 30 mL

Prep Date: 04/03/2017 1228

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

7470A Mercury (CVAA)-Dissolved

Analysis Method: 7470A

Analysis Batch: 460-427489

Instrument ID: LEEMAN6

Prep Method: 7470A

Prep Batch: 460-427431

Lab File ID: 427426hg1.CSV

Dilution: 1.0

Initial Weight/Volume: 30 mL

Analysis Date: 03/31/2017 1653

Final Weight/Volume: 30 mL

Prep Date: 03/31/2017 1252

| Analyte | Result (ug/L) | Qualifier | MDL | RL |
|---------|---------------|-----------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-10 (2-3)-170330

Lab Sample ID: 460-130646-4

Date Sampled: 03/30/2017 1015

Client Matrix: Solid

% Moisture: 15.2

Date Received: 03/30/2017 1850

6010C Metals (ICP)

Analysis Method: 6010C Analysis Batch: 460-427721 Instrument ID: ICP5
Prep Method: 3050B Prep Batch: 460-427665 Lab File ID: 427664D1.asc
Dilution: 4.0 Initial Weight/Volume: 1.28 g
Analysis Date: 04/02/2017 1438 Final Weight/Volume: 50 mL
Prep Date: 04/01/2017 1950

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 10600 | | 19.0 | 36.9 |
| Antimony | | 3.7 | U | 1.5 | 3.7 |
| Arsenic | | 6.8 | | 0.91 | 2.8 |
| Barium | | 84.8 | | 1.3 | 36.9 |
| Beryllium | | 0.44 | | 0.31 | 0.37 |
| Cadmium | | 0.74 | U | 0.38 | 0.74 |
| Calcium | | 1980 | | 54.5 | 921 |
| Chromium | | 23.5 | | 0.89 | 1.8 |
| Cobalt | | 7.5 | J | 1.1 | 9.2 |
| Copper | | 30.8 | | 1.2 | 4.6 |
| Iron | | 17000 | | 20.8 | 27.6 |
| Lead | | 99.2 | | 0.72 | 1.8 |
| Magnesium | | 3150 | | 46.0 | 921 |
| Manganese | | 333 | | 0.97 | 2.8 |
| Nickel | | 22.1 | | 1.3 | 7.4 |
| Potassium | | 1370 | | 27.9 | 921 |
| Selenium | | 3.7 | U | 1.3 | 3.7 |
| Silver | | 1.8 | U | 0.33 | 1.8 |
| Sodium | | 921 | U | 62.4 | 921 |
| Thallium | | 3.7 | U | 1.6 | 3.7 |
| Vanadium | | 30.0 | | 0.92 | 9.2 |
| Zinc | | 86.9 | | 1.3 | 5.5 |

7471B Mercury (CVAA)

Analysis Method: 7471B Analysis Batch: 460-427860 Instrument ID: LEEMAN5
Prep Method: 7471B Prep Batch: 460-427784 Lab File ID: 427784HG1.PRN
Dilution: 1.0 Initial Weight/Volume: 0.63 g
Analysis Date: 04/03/2017 0854 Final Weight/Volume: 50 mL
Prep Date: 04/03/2017 0411

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.34 | | 0.012 | 0.019 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

Client Sample ID: SB-9 (2-3)-170330

Lab Sample ID: 460-130646-5

Date Sampled: 03/30/2017 1050

Client Matrix: Solid

% Moisture: 15.4

Date Received: 03/30/2017 1850

6010C Metals (ICP)

Analysis Method: 6010C Analysis Batch: 460-427721 Instrument ID: ICP5
Prep Method: 3050B Prep Batch: 460-427665 Lab File ID: 427664D1.asc
Dilution: 4.0 Initial Weight/Volume: 1.34 g
Analysis Date: 04/02/2017 1442 Final Weight/Volume: 50 mL
Prep Date: 04/01/2017 1950

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|-----------|--------------------|----------------|-----------|------|------|
| Aluminum | | 13800 | | 18.2 | 35.3 |
| Antimony | | 3.5 | U | 1.4 | 3.5 |
| Arsenic | | 6.2 | | 0.87 | 2.6 |
| Barium | | 153 | | 1.3 | 35.3 |
| Beryllium | | 0.59 | | 0.30 | 0.35 |
| Cadmium | | 0.71 | U | 0.37 | 0.71 |
| Calcium | | 6670 | | 52.2 | 883 |
| Chromium | | 22.9 | | 0.85 | 1.8 |
| Cobalt | | 8.1 | J | 1.0 | 8.8 |
| Copper | | 27.7 | | 1.1 | 4.4 |
| Iron | | 17500 | | 19.9 | 26.5 |
| Lead | | 143 | | 0.69 | 1.8 |
| Magnesium | | 3740 | | 44.0 | 883 |
| Manganese | | 418 | | 0.93 | 2.6 |
| Nickel | | 17.9 | | 1.3 | 7.1 |
| Potassium | | 1350 | | 26.7 | 883 |
| Selenium | | 3.5 | U | 1.2 | 3.5 |
| Silver | | 1.8 | U | 0.31 | 1.8 |
| Sodium | | 404 | J | 59.7 | 883 |
| Thallium | | 3.5 | U | 1.6 | 3.5 |
| Vanadium | | 31.4 | | 0.88 | 8.8 |
| Zinc | | 94.9 | | 1.3 | 5.3 |

7471B Mercury (CVAA)

Analysis Method: 7471B Analysis Batch: 460-427860 Instrument ID: LEEMAN5
Prep Method: 7471B Prep Batch: 460-427784 Lab File ID: 427784HG1.PRN
Dilution: 1.0 Initial Weight/Volume: 0.60 g
Analysis Date: 04/03/2017 0857 Final Weight/Volume: 50 mL
Prep Date: 04/03/2017 0411

| Analyte | DryWt Corrected: Y | Result (mg/Kg) | Qualifier | MDL | RL |
|---------|--------------------|----------------|-----------|-------|-------|
| Mercury | | 0.44 | | 0.013 | 0.020 |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

General Chemistry

Client Sample ID: SB-7 (1-2)-170330

Lab Sample ID: 460-130646-1

Date Sampled: 03/30/2017 0800

Client Matrix: Solid

Date Received: 03/30/2017 1850

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|-----|-----|-----|--------------------|
| Percent Moisture | 12.8 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-428117 | Analysis Date: 04/04/2017 | 1215 | | | | DryWt Corrected: N |
| Percent Solids | 87.2 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-428117 | Analysis Date: 04/04/2017 | 1215 | | | | DryWt Corrected: N |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

General Chemistry

Client Sample ID: SB-7 (18.5-19.5)-170330

Lab Sample ID: 460-130646-2

Date Sampled: 03/30/2017 0815

Client Matrix: Solid

Date Received: 03/30/2017 1850

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|-----|-----|-----|--------------------|
| Percent Moisture | 17.5 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-428117 | Analysis Date: 04/04/2017 | 1215 | | | | DryWt Corrected: N |
| Percent Solids | 82.5 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-428117 | Analysis Date: 04/04/2017 | 1215 | | | | DryWt Corrected: N |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

General Chemistry

Client Sample ID: SB-10 (2-3)-170330

Lab Sample ID: 460-130646-4

Date Sampled: 03/30/2017 1015

Client Matrix: Solid

Date Received: 03/30/2017 1850

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|-----|-----|-----|--------------------|
| Percent Moisture | 15.2 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-428117 | Analysis Date: 04/04/2017 | 1215 | | | | DryWt Corrected: N |
| Percent Solids | 84.8 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-428117 | Analysis Date: 04/04/2017 | 1215 | | | | DryWt Corrected: N |

Analytical Data

Client: AKRF Inc

Job Number: 460-130646-1

General Chemistry

Client Sample ID: SB-9 (2-3)-170330

Lab Sample ID: 460-130646-5

Date Sampled: 03/30/2017 1050

Client Matrix: Solid

Date Received: 03/30/2017 1850

| Analyte | Result | Qual | Units | MDL | RL | Dil | Method |
|------------------|----------------------------|---------------------------|-------|-----|-----|-----|--------------------|
| Percent Moisture | 15.4 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-428117 | Analysis Date: 04/04/2017 | 1215 | | | | DryWt Corrected: N |
| Percent Solids | 84.6 | | % | 1.0 | 1.0 | 1.0 | Moisture |
| | Analysis Batch: 460-428117 | Analysis Date: 04/04/2017 | 1215 | | | | DryWt Corrected: N |

DATA REPORTING QUALIFIERS

Client: AKRF Inc

Job Number: 460-130646-1

| Lab Section | Qualifier | Description |
|----------------|-----------|---|
| GC/MS VOA | | |
| | U | Analyzed for but not detected. |
| | J | Indicates an estimated value. |
| | B | The analyte was found in an associated blank, as well as in the sample. |
| GC/MS Semi VOA | | |
| | U | Analyzed for but not detected. |
| | * | Duplicate RPD exceeds control limits |
| | J | Indicates an estimated value. |
| | * | LCS or LCSD is outside acceptance limits. |
| | * | MS or MSD is outside acceptance limits. |
| | * | Surrogate is outside acceptance limits. |
| GC Semi VOA | | |
| | U | Analyzed for but not detected. |
| | E | Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis. |
| | * | MS or MSD is outside acceptance limits. |
| | * | Surrogate is outside acceptance limits. |
| | p | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported. |
| Metals | | |
| | * | Duplicate analysis not within control limits. |
| | U | Indicates analyzed for but not detected. |
| | 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| | J | Sample result is greater than the MDL but below the CRDL |
| | N | Spiked sample recovery is not within control limits. |

QUALITY CONTROL RESULTS

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|--|--------------|---------------|--------|------------|
| GC/MS VOA | | | | | |
| Prep Batch: 460-427346 | | | | | |
| LB3 460-427346/1-A | Neutral Leach or MeOH Extraction Blank | T | Solid | 5035 | |
| 460-130646-1 | SB-7 (1-2)-170330 | T | Solid | 5035 | |
| 460-130646-2 | SB-7 (18.5-19.5)-170330 | T | Solid | 5035 | |
| 460-130646-4 | SB-10 (2-3)-170330 | T | Solid | 5035 | |
| 460-130646-5 | SB-9 (2-3)-170330 | T | Solid | 5035 | |
| Analysis Batch:460-427946 | | | | | |
| LCS 460-427946/3 | Lab Control Sample | T | Solid | 8260C | |
| LCSD 460-427946/4 | Lab Control Sample Duplicate | T | Solid | 8260C | |
| MB 460-427946/7 | Method Blank | T | Solid | 8260C | |
| 460-130646-1 | SB-7 (1-2)-170330 | T | Solid | 8260C | 460-427346 |
| 460-130646-2 | SB-7 (18.5-19.5)-170330 | T | Solid | 8260C | 460-427346 |
| 460-130646-4 | SB-10 (2-3)-170330 | T | Solid | 8260C | 460-427346 |
| 460-130646-5 | SB-9 (2-3)-170330 | T | Solid | 8260C | 460-427346 |
| Analysis Batch:460-428019 | | | | | |
| LCS 460-428019/4 | Lab Control Sample | T | Solid | 8260C | |
| LCSD 460-428019/5 | Lab Control Sample Duplicate | T | Solid | 8260C | |
| MB 460-428019/7 | Method Blank | T | Solid | 8260C | |
| LB3 460-427346/1-A | Neutral Leach or MeOH Extraction Blank | T | Solid | 8260C | 460-427346 |
| Analysis Batch:460-428182 | | | | | |
| LCS 460-428182/3 | Lab Control Sample | T | Water | 8260C | |
| LCSD 460-428182/4 | Lab Control Sample Duplicate | T | Water | 8260C | |
| MB 460-428182/7 | Method Blank | T | Water | 8260C | |
| 460-130646-3 | GW-7-170330 | T | Water | 8260C | |
| 460-130646-6TB | Trip Blank | T | Water | 8260C | |

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|-------------------------|--------------|---------------|--------|------------|
| GC/MS Semi VOA | | | | | |
| Prep Batch: 460-427482 | | | | | |
| LCS 460-427482/2-A | Lab Control Sample | T | Water | 3510C | |
| LCS 460-427482/3-A | Lab Control Sample | T | Water | 3510C | |
| MB 460-427482/1-A | Method Blank | T | Water | 3510C | |
| 460-130598-I-3-A MS | Matrix Spike | T | Water | 3510C | |
| 460-130598-I-3-B MSD | Matrix Spike Duplicate | T | Water | 3510C | |
| 460-130646-3 | GW-7-170330 | T | Water | 3510C | |
| Analysis Batch:460-427527 | | | | | |
| LCS 460-427482/2-A | Lab Control Sample | T | Water | 8270D | 460-427482 |
| LCS 460-427482/3-A | Lab Control Sample | T | Water | 8270D | 460-427482 |
| MB 460-427482/1-A | Method Blank | T | Water | 8270D | 460-427482 |
| 460-130598-I-3-A MS | Matrix Spike | T | Water | 8270D | 460-427482 |
| 460-130598-I-3-B MSD | Matrix Spike Duplicate | T | Water | 8270D | 460-427482 |
| Prep Batch: 460-427681 | | | | | |
| LCS 460-427681/2-A | Lab Control Sample | T | Solid | 3546 | |
| LCS 460-427681/3-A | Lab Control Sample | T | Solid | 3546 | |
| MB 460-427681/1-A | Method Blank | T | Solid | 3546 | |
| 460-130644-E-14-A MS | Matrix Spike | T | Solid | 3546 | |
| 460-130644-E-14-B MSD | Matrix Spike Duplicate | T | Solid | 3546 | |
| 460-130646-1 | SB-7 (1-2)-170330 | T | Solid | 3546 | |
| 460-130646-2 | SB-7 (18.5-19.5)-170330 | T | Solid | 3546 | |
| 460-130646-4 | SB-10 (2-3)-170330 | T | Solid | 3546 | |
| 460-130646-5 | SB-9 (2-3)-170330 | T | Solid | 3546 | |
| Analysis Batch:460-427760 | | | | | |
| LCS 460-427681/2-A | Lab Control Sample | T | Solid | 8270D | 460-427681 |
| LCS 460-427681/3-A | Lab Control Sample | T | Solid | 8270D | 460-427681 |
| MB 460-427681/1-A | Method Blank | T | Solid | 8270D | 460-427681 |
| 460-130644-E-14-A MS | Matrix Spike | T | Solid | 8270D | 460-427681 |
| 460-130644-E-14-B MSD | Matrix Spike Duplicate | T | Solid | 8270D | 460-427681 |
| 460-130646-1 | SB-7 (1-2)-170330 | T | Solid | 8270D | 460-427681 |
| 460-130646-2 | SB-7 (18.5-19.5)-170330 | T | Solid | 8270D | 460-427681 |
| 460-130646-4 | SB-10 (2-3)-170330 | T | Solid | 8270D | 460-427681 |
| 460-130646-5 | SB-9 (2-3)-170330 | T | Solid | 8270D | 460-427681 |
| Analysis Batch:460-427890 | | | | | |
| 460-130646-3 | GW-7-170330 | T | Water | 8270D | 460-427482 |

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|------------------------------|--------------|---------------|--------|------------|
| GC Semi VOA | | | | | |
| Prep Batch: 460-427415 | | | | | |
| LCS 460-427415/2-A | Lab Control Sample | T | Solid | 3546 | |
| MB 460-427415/1-A | Method Blank | T | Solid | 3546 | |
| 460-130621-E-6-B MS | Matrix Spike | T | Solid | 3546 | |
| 460-130621-E-6-C MSD | Matrix Spike Duplicate | T | Solid | 3546 | |
| 460-130646-1 | SB-7 (1-2)-170330 | T | Solid | 3546 | |
| 460-130646-2 | SB-7 (18.5-19.5)-170330 | T | Solid | 3546 | |
| 460-130646-4 | SB-10 (2-3)-170330 | T | Solid | 3546 | |
| 460-130646-5 | SB-9 (2-3)-170330 | T | Solid | 3546 | |
| Prep Batch: 460-427417 | | | | | |
| LCS 460-427417/2-A | Lab Control Sample | T | Solid | 3546 | |
| MB 460-427417/1-A | Method Blank | T | Solid | 3546 | |
| 460-130621-E-6-E MS | Matrix Spike | T | Solid | 3546 | |
| 460-130621-E-6-F MSD | Matrix Spike Duplicate | T | Solid | 3546 | |
| 460-130646-1 | SB-7 (1-2)-170330 | T | Solid | 3546 | |
| 460-130646-2 | SB-7 (18.5-19.5)-170330 | T | Solid | 3546 | |
| 460-130646-4 | SB-10 (2-3)-170330 | T | Solid | 3546 | |
| 460-130646-5 | SB-9 (2-3)-170330 | T | Solid | 3546 | |
| Analysis Batch:460-427684 | | | | | |
| LCS 460-427415/2-A | Lab Control Sample | T | Solid | 8082A | 460-427415 |
| MB 460-427415/1-A | Method Blank | T | Solid | 8082A | 460-427415 |
| 460-130621-E-6-B MS | Matrix Spike | T | Solid | 8082A | 460-427415 |
| 460-130621-E-6-C MSD | Matrix Spike Duplicate | T | Solid | 8082A | 460-427415 |
| 460-130646-1 | SB-7 (1-2)-170330 | T | Solid | 8082A | 460-427415 |
| 460-130646-4 | SB-10 (2-3)-170330 | T | Solid | 8082A | 460-427415 |
| 460-130646-5 | SB-9 (2-3)-170330 | T | Solid | 8082A | 460-427415 |
| Analysis Batch:460-427686 | | | | | |
| LCS 460-427417/2-A | Lab Control Sample | T | Solid | 8081B | 460-427417 |
| MB 460-427417/1-A | Method Blank | T | Solid | 8081B | 460-427417 |
| 460-130621-E-6-E MS | Matrix Spike | T | Solid | 8081B | 460-427417 |
| 460-130621-E-6-F MSD | Matrix Spike Duplicate | T | Solid | 8081B | 460-427417 |
| 460-130646-1 | SB-7 (1-2)-170330 | T | Solid | 8081B | 460-427417 |
| 460-130646-4 | SB-10 (2-3)-170330 | T | Solid | 8081B | 460-427417 |
| 460-130646-5 | SB-9 (2-3)-170330 | T | Solid | 8081B | 460-427417 |
| Analysis Batch:460-427820 | | | | | |
| LCS 460-427822/2-A | Lab Control Sample | T | Water | 8081B | 460-427822 |
| LCSD 460-427822/3-A | Lab Control Sample Duplicate | T | Water | 8081B | 460-427822 |
| MB 460-427822/1-A | Method Blank | T | Water | 8081B | 460-427822 |
| 460-130646-2 | SB-7 (18.5-19.5)-170330 | T | Solid | 8081B | 460-427417 |

TestAmerica Edison

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|------------------------------|--------------|---------------|--------|------------|
| GC Semi VOA | | | | | |
| Prep Batch: 460-427822 | | | | | |
| LCS 460-427822/2-A | Lab Control Sample | T | Water | 3510C | |
| LCSD 460-427822/3-A | Lab Control Sample Duplicate | T | Water | 3510C | |
| MB 460-427822/1-A | Method Blank | T | Water | 3510C | |
| 460-130646-3 | GW-7-170330 | T | Water | 3510C | |
| Prep Batch: 460-427824 | | | | | |
| LCS 460-427824/2-A | Lab Control Sample | T | Water | 3510C | |
| MB 460-427824/1-A | Method Blank | T | Water | 3510C | |
| 460-130646-3 | GW-7-170330 | T | Water | 3510C | |
| 460-130719-D-2-A MS | Matrix Spike | T | Water | 3510C | |
| 460-130719-D-2-B MSD | Matrix Spike Duplicate | T | Water | 3510C | |
| Analysis Batch:460-427837 | | | | | |
| LCS 460-427824/2-A | Lab Control Sample | T | Water | 8082A | 460-427824 |
| MB 460-427824/1-A | Method Blank | T | Water | 8082A | 460-427824 |
| 460-130646-3 | GW-7-170330 | T | Water | 8082A | 460-427824 |
| 460-130719-D-2-A MS | Matrix Spike | T | Water | 8082A | 460-427824 |
| 460-130719-D-2-B MSD | Matrix Spike Duplicate | T | Water | 8082A | 460-427824 |
| Analysis Batch:460-427839 | | | | | |
| 460-130646-2 | SB-7 (18.5-19.5)-170330 | T | Solid | 8082A | 460-427415 |
| Analysis Batch:460-428169 | | | | | |
| 460-130646-3 | GW-7-170330 | T | Water | 8081B | 460-427822 |

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|----------------------------------|--------------|---------------|--------|------------|
| Metals | | | | | |
| Prep Batch: 460-427431 | | | | | |
| LCS 460-427431/3-A | Lab Control Sample | T | Water | 7470A | |
| MB 460-427428/1-B | Method Blank | D | Water | 7470A | |
| 460-130507-B-10-A DU | Duplicate | D | Water | 7470A | |
| 460-130507-E-10-B MS | Matrix Spike | D | Water | 7470A | |
| 460-130646-3 | GW-7-170330 | D | Water | 7470A | |
| Analysis Batch:460-427489 | | | | | |
| LCS 460-427431/3-A | Lab Control Sample | T | Water | 7470A | 460-427431 |
| MB 460-427428/1-B | Method Blank | D | Water | 7470A | 460-427431 |
| 460-130507-B-10-A DU | Duplicate | D | Water | 7470A | 460-427431 |
| 460-130507-E-10-B MS | Matrix Spike | D | Water | 7470A | 460-427431 |
| 460-130646-3 | GW-7-170330 | D | Water | 7470A | 460-427431 |
| Prep Batch: 460-427665 | | | | | |
| LCSSRM 460-427665/2-A ^4 | LCS-Certified Reference Material | T | Solid | 3050B | |
| MB 460-427665/1-A ^2 | Method Blank | T | Solid | 3050B | |
| 460-130644-D-12-C DU ^4 | Duplicate | T | Solid | 3050B | |
| 460-130644-D-12-D MS ^4 | Matrix Spike | T | Solid | 3050B | |
| 460-130646-1 | SB-7 (1-2)-170330 | T | Solid | 3050B | |
| 460-130646-2 | SB-7 (18.5-19.5)-170330 | T | Solid | 3050B | |
| 460-130646-4 | SB-10 (2-3)-170330 | T | Solid | 3050B | |
| 460-130646-5 | SB-9 (2-3)-170330 | T | Solid | 3050B | |
| Prep Batch: 460-427669 | | | | | |
| LCS 460-427669/2-A ^2 | Lab Control Sample | T | Water | 3010A | |
| MB 460-427669/1-A ^2 | Method Blank | T | Water | 3010A | |
| 460-130646-3 | GW-7-170330 | T | Water | 3010A | |
| 460-130693-E-3-B DU ^2 | Duplicate | T | Water | 3010A | |
| 460-130693-E-3-C MS ^2 | Matrix Spike | T | Water | 3010A | |
| Analysis Batch:460-427721 | | | | | |
| LCSSRM 460-427665/2-A ^4 | LCS-Certified Reference Material | T | Solid | 6010C | 460-427665 |
| MB 460-427665/1-A ^2 | Method Blank | T | Solid | 6010C | 460-427665 |
| 460-130644-D-12-C DU ^4 | Duplicate | T | Solid | 6010C | 460-427665 |
| 460-130644-D-12-D MS ^4 | Matrix Spike | T | Solid | 6010C | 460-427665 |
| 460-130646-1 | SB-7 (1-2)-170330 | T | Solid | 6010C | 460-427665 |
| 460-130646-2 | SB-7 (18.5-19.5)-170330 | T | Solid | 6010C | 460-427665 |
| 460-130646-4 | SB-10 (2-3)-170330 | T | Solid | 6010C | 460-427665 |
| 460-130646-5 | SB-9 (2-3)-170330 | T | Solid | 6010C | 460-427665 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|------------------------------------|--------------|---------------|--------|------------|
| Metals | | | | | |
| Prep Batch: 460-427784 | | | | | |
| LCSSRM 460-427784/11-A | ^2LCS-Certified Reference Material | T | Solid | 7471B | |
| MB 460-427784/10-A | Method Blank | T | Solid | 7471B | |
| 460-130646-1 | SB-7 (1-2)-170330 | T | Solid | 7471B | |
| 460-130646-2 | SB-7 (18.5-19.5)-170330 | T | Solid | 7471B | |
| 460-130646-4 | SB-10 (2-3)-170330 | T | Solid | 7471B | |
| 460-130646-5 | SB-9 (2-3)-170330 | T | Solid | 7471B | |
| 460-130740-E-10-C DU | Duplicate | T | Solid | 7471B | |
| 460-130740-E-10-D MS | Matrix Spike | T | Solid | 7471B | |
| Analysis Batch:460-427860 | | | | | |
| LCSSRM 460-427784/11-A | ^2LCS-Certified Reference Material | T | Solid | 7471B | 460-427784 |
| MB 460-427784/10-A | Method Blank | T | Solid | 7471B | 460-427784 |
| 460-130646-1 | SB-7 (1-2)-170330 | T | Solid | 7471B | 460-427784 |
| 460-130646-2 | SB-7 (18.5-19.5)-170330 | T | Solid | 7471B | 460-427784 |
| 460-130646-4 | SB-10 (2-3)-170330 | T | Solid | 7471B | 460-427784 |
| 460-130646-5 | SB-9 (2-3)-170330 | T | Solid | 7471B | 460-427784 |
| 460-130740-E-10-C DU | Duplicate | T | Solid | 7471B | 460-427784 |
| 460-130740-E-10-D MS | Matrix Spike | T | Solid | 7471B | 460-427784 |
| Prep Batch: 460-427871 | | | | | |
| LCS 460-427871/2-A | Lab Control Sample | T | Water | 7470A | |
| MB 460-427871/1-A | Method Blank | T | Water | 7470A | |
| 460-130646-3 | GW-7-170330 | T | Water | 7470A | |
| 460-130728-G-1-B DU | Duplicate | T | Water | 7470A | |
| 460-130728-G-1-C MS | Matrix Spike | T | Water | 7470A | |
| Analysis Batch:460-427907 | | | | | |
| LCS 460-427669/2-A | ^2 Lab Control Sample | T | Water | 6020A | 460-427669 |
| MB 460-427669/1-A | ^2 Method Blank | T | Water | 6020A | 460-427669 |
| 460-130646-3 | GW-7-170330 | T | Water | 6020A | 460-427669 |
| 460-130693-E-3-B DU | ^2 Duplicate | T | Water | 6020A | 460-427669 |
| 460-130693-E-3-C MS | ^2 Matrix Spike | T | Water | 6020A | 460-427669 |
| Analysis Batch:460-427923 | | | | | |
| LCS 460-427871/2-A | Lab Control Sample | T | Water | 7470A | 460-427871 |
| MB 460-427871/1-A | Method Blank | T | Water | 7470A | 460-427871 |
| 460-130646-3 | GW-7-170330 | T | Water | 7470A | 460-427871 |
| 460-130728-G-1-B DU | Duplicate | T | Water | 7470A | 460-427871 |
| 460-130728-G-1-C MS | Matrix Spike | T | Water | 7470A | 460-427871 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|--------------------|--------------|---------------|--------|------------|
| Metals | | | | | |
| Prep Batch: 460-428255 | | | | | |
| LCS 460-428255/2-A | Lab Control Sample | T | Water | 3010A | |
| LCS 460-428255/2-A ^2 | Lab Control Sample | T | Water | 3010A | |
| MB 460-428255/1-A | Method Blank | T | Water | 3010A | |
| MB 460-428255/1-A ^2 | Method Blank | T | Water | 3010A | |
| 460-130507-B-10-E DU ^2 | Duplicate | D | Water | 3010A | |
| 460-130507-E-10-D MS ^2 | Matrix Spike | D | Water | 3010A | |
| 460-130646-3 | GW-7-170330 | D | Water | 3010A | |
| Analysis Batch:460-428349 | | | | | |
| LCS 460-428255/2-A | Lab Control Sample | T | Water | 6020A | 460-428255 |
| MB 460-428255/1-A | Method Blank | T | Water | 6020A | 460-428255 |
| 460-130507-B-10-E DU ^2 | Duplicate | D | Water | 6020A | 460-428255 |
| 460-130507-E-10-D MS ^2 | Matrix Spike | D | Water | 6020A | 460-428255 |
| 460-130646-3 | GW-7-170330 | D | Water | 6020A | 460-428255 |
| Analysis Batch:460-428431 | | | | | |
| LCS 460-428255/2-A ^2 | Lab Control Sample | T | Water | 6020A | 460-428255 |
| MB 460-428255/1-A ^2 | Method Blank | T | Water | 6020A | 460-428255 |
| 460-130507-B-10-E DU ^2 | Duplicate | D | Water | 6020A | 460-428255 |
| 460-130507-E-10-D MS ^2 | Matrix Spike | D | Water | 6020A | 460-428255 |
| 460-130646-3 | GW-7-170330 | D | Water | 6020A | 460-428255 |

Report Basis

D = Dissolved

T = Total

General Chemistry

| | | | | | |
|----------------------------------|-------------------------|---|-------|----------|--|
| Analysis Batch:460-428117 | | | | | |
| 460-130646-1 | SB-7 (1-2)-170330 | T | Solid | Moisture | |
| 460-130646-2 | SB-7 (18.5-19.5)-170330 | T | Solid | Moisture | |
| 460-130646-4 | SB-10 (2-3)-170330 | T | Solid | Moisture | |
| 460-130646-5 | SB-9 (2-3)-170330 | T | Solid | Moisture | |
| 460-130650-A-9 DU | Duplicate | T | Solid | Moisture | |

Report Basis

T = Total

Client: AKRF Inc

Job Number: 460-130646-1

Surrogate Recovery Report**8260C Volatile Organic Compounds by GC/MS****Client Matrix: Solid**

| Lab Sample ID | Client Sample ID | DCA %Rec | BFB %Rec | DBFM %Rec | TOL %Rec |
|--------------------|-----------------------------|-------------|-------------|--------------|-------------|
| 460-130646-1 | SB-7 (1-2)-170330 | 88 | 81 | 87 | 84 |
| 460-130646-2 | SB-7 (18.5-19.5) -170330 | 89 | 81 | 86 | 86 |
| 460-130646-4 | SB-10 (2-3)-170330 | 98 | 88 | 96 | 92 |
| 460-130646-5 | SB-9 (2-3)-170330 | 83 | 74 | 82 | 78 |
| MB 460-427946/7 | | 97 | 95 | 97 | 103 |
| MB 460-428019/7 | | 98 | 110 | 109 | 95 |
| LB3 460-427346/1-A | | 99 | 110 | 112 | 97 |
| LCS 460-427946/3 | | 89 | 86 | 92 | 92 |
| LCS 460-428019/4 | | 96 | 109 | 109 | 98 |
| LCSD 460-427946/4 | | 88 | 82 | 90 | 90 |
| LCSD 460-428019/5 | | 96 | 110 | 109 | 98 |

| Surrogate | Acceptance Limits |
|------------------------------------|-------------------|
| DCA = 1,2-Dichloroethane-d4 (Surr) | 78-135 |
| BFB = 4-Bromofluorobenzene | 67-126 |
| DBFM = Dibromofluoromethane (Surr) | 61-149 |
| TOL = Toluene-d8 (Surr) | 73-121 |

Client: AKRF Inc

Job Number: 460-130646-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Water

| Lab Sample ID | Client Sample ID | DCA %Rec | BFB %Rec | DBFM %Rec | TOL %Rec |
|-------------------|------------------|-------------|-------------|--------------|-------------|
| 460-130646-3 | GW-7-170330 | 90 | 97 | 86 | 91 |
| 460-130646-6 | Trip Blank | 90 | 96 | 86 | 90 |
| MB 460-428182/7 | | 88 | 96 | 85 | 89 |
| LCS 460-428182/3 | | 87 | 99 | 84 | 89 |
| LCSD 460-428182/4 | | 86 | 100 | 83 | 87 |

| Surrogate | Acceptance Limits |
|------------------------------------|-------------------|
| DCA = 1,2-Dichloroethane-d4 (Surr) | 74-132 |
| BFB = 4-Bromofluorobenzene | 77-124 |
| DBFM = Dibromofluoromethane (Surr) | 72-131 |
| TOL = Toluene-d8 (Surr) | 80-120 |

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

| Lab Sample ID | Client Sample ID | TBP %Rec | FBP %Rec | 2FP %Rec | NBZ %Rec | PHL %Rec | TPHL %Rec |
|--------------------------|-----------------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| 460-130646-1 | SB-7 (1-2)-170330 | 70 | 71 | 70 | 86 | 79 | 80 |
| 460-130646-2 | SB-7 (18.5-19.5) -170330 | 79 | 76 | 72 | 87 | 79 | 84 |
| 460-130646-4 | SB-10 (2-3)-170330 | 68 | 72 | 70 | 89 | 76 | 84 |
| 460-130646-5 | SB-9 (2-3)-170330 | 55 | 77 | 68 | 93 | 77 | 89 |
| MB 460-427681/1-A | | 70 | 69 | 76 | 89 | 83 | 75 |
| LCS 460-427681/2-A | | 85 | 80 | 85 | 104* | 93* | 87 |
| LCS 460-427681/3-A | | 74 | 80 | 83 | 101* | 86 | 86 |
| 460-130644-E-14-A MS | | 9* | 53 | 33 | 57 | 47 | 43 |
| 460-130644-E-14-B MSD | | 9* | 54 | 31 | 57 | 46 | 43 |

| Surrogate | Acceptance Limits |
|-----------------------------------|-------------------|
| TBP = 2,4,6-Tribromophenol (Surr) | 10-103 |
| FBP = 2-Fluorobiphenyl | 38-95 |
| 2FP = 2-Fluorophenol (Surr) | 25-92 |
| NBZ = Nitrobenzene-d5 (Surr) | 37-94 |
| PHL = Phenol-d5 (Surr) | 32-91 |
| TPHL = Terphenyl-d14 (Surr) | 24-109 |

Client: AKRF Inc

Job Number: 460-130646-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

| Lab Sample ID | Client Sample ID | TBP %Rec | FBP %Rec | 2FP %Rec | NBZ %Rec | PHL %Rec | TPHL %Rec |
|-------------------------|------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| 460-130646-3 | GW-7-170330 | 72 | 62 | 36 | 70 | 25 | 89 |
| MB 460-427482/1-A | | 79 | 63 | 32 | 65 | 21 | 82 |
| LCS 460-427482/2-A | | 77 | 63 | 35 | 68 | 23 | 76 |
| LCS 460-427482/3-A | | 63 | 59 | 33 | 72 | 21 | 87 |
| 460-130598-I-3-A MS | | 70 | 71 | 35 | 65 | 22 | 72 |
| 460-130598-I-3-B MSD | | 76 | 71 | 36 | 68 | 23 | 72 |

| Surrogate | Acceptance Limits |
|-----------------------------------|-------------------|
| TBP = 2,4,6-Tribromophenol (Surr) | 26-139 |
| FBP = 2-Fluorobiphenyl | 45-107 |
| 2FP = 2-Fluorophenol (Surr) | 25-58 |
| NBZ = Nitrobenzene-d5 (Surr) | 51-108 |
| PHL = Phenol-d5 (Surr) | 14-39 |
| TPHL = Terphenyl-d14 (Surr) | 40-148 |

Client: AKRF Inc

Job Number: 460-130646-1

Surrogate Recovery Report

8081B Organochlorine Pesticides (GC)

Client Matrix: Solid

| Lab Sample ID | Client Sample ID | DCBP1 %Rec | DCBP2 %Rec | TCX1 %Rec | TCX2 %Rec |
|-------------------------|-----------------------------|---------------|---------------|--------------|--------------|
| 460-130646-1 | SB-7 (1-2)-170330 | 115 | 165* | 99 | 109 |
| 460-130646-2 | SB-7 (18.5-19.5) -170330 | 126 | 139 | 135 | 99 |
| 460-130646-4 | SB-10 (2-3)-170330 | 121p | 434* | 123 | 123 |
| 460-130646-5 | SB-9 (2-3)-170330 | 97 | 112 | 81 | 85 |
| MB 460-427417/1-A | | 130 | 132 | 103 | 105 |
| LCS 460-427417/2-A | | 130 | 136 | 99 | 103 |
| 460-130621-E-6-E MS | | 121 | 148 | 102 | 112 |
| 460-130621-E-6-F MSD | | 106 | 142 | 91 | 114 |

| Surrogate | Acceptance Limits |
|-------------------------------|-------------------|
| DCBP = DCB Decachlorobiphenyl | 50-150 |
| TCX = Tetrachloro-m-xylene | 47-150 |

Client: AKRF Inc

Job Number: 460-130646-1

Surrogate Recovery Report

8081B Organochlorine Pesticides (GC)

Client Matrix: Water

| Lab Sample ID | Client Sample ID | DCBP1 %Rec | DCBP2 %Rec | TCX1 %Rec | TCX2 %Rec |
|------------------------|------------------|---------------|---------------|--------------|--------------|
| 460-130646-3 | GW-7-170330 | 123 | 113 | 110 | 105 |
| MB 460-427822/1-A | | 109 | 116 | 96 | 100 |
| LCS 460-427822/2-A | | 106 | 117 | 99 | 98 |
| LCSD 460-427822/3-A | | 113 | 124 | 106 | 108 |

| Surrogate | Acceptance Limits |
|-------------------------------|-------------------|
| DCBP = DCB Decachlorobiphenyl | 10-150 |
| TCX = Tetrachloro-m-xylene | 16-150 |

Client: AKRF Inc

Job Number: 460-130646-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

| Lab Sample ID | Client Sample ID | DCBP1 %Rec | DCBP2 %Rec |
|-------------------------|-----------------------------|---------------|---------------|
| 460-130646-1 | SB-7 (1-2)-170330 | 127 | 140 |
| 460-130646-2 | SB-7 (18.5-19.5) -170330 | 101 | 101 |
| 460-130646-4 | SB-10 (2-3)-170330 | 144 | 146 |
| 460-130646-5 | SB-9 (2-3)-170330 | 104 | 103 |
| MB 460-427415/1-A | | 111 | 108 |
| LCS 460-427415/2-A | | 119 | 118 |
| 460-130621-E-6-B MS | | 113 | 121 |
| 460-130621-E-6-C MSD | | 115 | 115 |

| | |
|-------------------------------|-------------------|
| Surrogate | Acceptance Limits |
| DCBP = DCB Decachlorobiphenyl | 35-150 |

Client: AKRF Inc

Job Number: 460-130646-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Water

| Lab Sample ID | Client Sample ID | DCBP1 %Rec | DCBP2 %Rec |
|-------------------------|------------------|---------------|---------------|
| 460-130646-3 | GW-7-170330 | 91 | 99 |
| MB 460-427824/1-A | | 129 | 115 |
| LCS 460-427824/2-A | | 115 | 113 |
| 460-130719-D-2-A MS | | 118 | 107 |
| 460-130719-D-2-B MSD | | 119 | 113 |

| Surrogate | Acceptance Limits |
|-------------------------------|-------------------|
| DCBP = DCB Decachlorobiphenyl | 10-150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Neutral Leach or MeOH Extraction Blank - Batch: 460-427346

**Method: 8260C
Preparation: 5035**

| | | |
|-----------------------------------|----------------------------|----------------------------|
| Lab Sample ID: LB3 460-427346/1-A | Analysis Batch: 460-428019 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: 460-427346 | Lab File ID: K66019.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 g |
| Analysis Date: 04/04/2017 1103 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: 03/31/2017 0746 | | |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------------------|--------|------|------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.38 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 2.62 | | 0.44 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.41 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.32 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.47 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | 20 | U | 6.4 | 20 |
| 2-Butanone (MEK) | 5.0 | U | 0.77 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.94 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 2.2 | 5.0 |
| Acetone | 2.36 | J | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.20 | 1.0 |
| Bromoform | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | 1.0 | U | 0.32 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.43 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.43 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | 1.0 | U | 0.35 | 1.0 |
| Chloroform | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | 1.0 | U | 0.38 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | 1.0 | U | 0.46 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.38 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.32 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | 5.0 | U | 0.90 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.50 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.32 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.11 | 1.0 |
| o-Xylene | 1.0 | U | 0.16 | 1.0 |
| Styrene | 1.0 | U | 0.15 | 1.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Neutral Leach or MeOH Extraction Blank - Batch: 460-427346

**Method: 8260C
Preparation: 5035**

| | | |
|-----------------------------------|----------------------------|----------------------------|
| Lab Sample ID: LB3 460-427346/1-A | Analysis Batch: 460-428019 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: 460-427346 | Lab File ID: K66019.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 g |
| Analysis Date: 04/04/2017 1103 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: 03/31/2017 0746 | | |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|------|-----|
| Tetrachloroethene | 1.0 | U | 0.28 | 1.0 |
| Toluene | 1.0 | U | 0.19 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.39 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.10 | 1.0 |
| Trichloroethene | 1.0 | U | 0.26 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.34 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.39 | 1.0 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------------|-------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 99 | 78 - 135 |
| 4-Bromofluorobenzene | 110 | 67 - 126 |
| Dibromofluoromethane (Surr) | 112 | 61 - 149 |
| Toluene-d8 (Surr) | 97 | 73 - 121 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-427946

**Method: 8260C
Preparation: N/A**

Lab Sample ID: MB 460-427946/7
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/03/2017 2122
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 460-427946
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CVOAMS4
 Lab File ID: D34721.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------------------|--------|------|------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.38 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.44 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.41 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.32 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.47 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | 20 | U | 6.4 | 20 |
| 2-Butanone (MEK) | 5.0 | U | 0.77 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.94 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 2.2 | 5.0 |
| Acetone | 2.35 | J | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.20 | 1.0 |
| Bromoform | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | 1.0 | U | 0.32 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.43 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.43 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | 1.0 | U | 0.35 | 1.0 |
| Chloroform | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | 1.0 | U | 0.38 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | 1.0 | U | 0.46 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.38 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.32 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | 5.0 | U | 0.90 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.50 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.32 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.11 | 1.0 |
| o-Xylene | 1.0 | U | 0.16 | 1.0 |
| Styrene | 1.0 | U | 0.15 | 1.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-427946

**Method: 8260C
Preparation: N/A**

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Lab Sample ID: MB 460-427946/7 | Analysis Batch: 460-427946 | Instrument ID: CVOAMS4 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: D34721.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/03/2017 2122 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|------|-----|
| Tetrachloroethene | 1.0 | U | 0.28 | 1.0 |
| Toluene | 1.0 | U | 0.19 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.39 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.10 | 1.0 |
| Trichloroethene | 1.0 | U | 0.26 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.34 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.39 | 1.0 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------------|-------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 97 | 78 - 135 |
| 4-Bromofluorobenzene | 95 | 67 - 126 |
| Dibromofluoromethane (Surr) | 97 | 61 - 149 |
| Toluene-d8 (Surr) | 103 | 73 - 121 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427946 **Method: 8260C**
Preparation: N/A

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-427946/3 | Analysis Batch: 460-427946 | Instrument ID: CVOAMS4 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: D34717.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/03/2017 1943 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-427946/4 | Analysis Batch: 460-427946 | Instrument ID: CVOAMS4 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: D34718.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/03/2017 2007 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|---------------------------------------|--------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 1,1,1-Trichloroethane | 102 | 96 | 80 - 125 | 5 | 30 | | |
| 1,1,2,2-Tetrachloroethane | 88 | 81 | 72 - 131 | 8 | 30 | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 111 | 101 | 78 - 132 | 10 | 30 | | |
| 1,1,2-Trichloroethane | 89 | 80 | 76 - 124 | 10 | 30 | | |
| 1,1-Dichloroethane | 94 | 88 | 80 - 124 | 7 | 30 | | |
| 1,1-Dichloroethene | 101 | 92 | 79 - 132 | 9 | 30 | | |
| 1,2,3-Trichlorobenzene | 93 | 86 | 75 - 123 | 8 | 30 | | |
| 1,2,4-Trichlorobenzene | 96 | 86 | 74 - 124 | 11 | 30 | | |
| 1,2-Dibromo-3-Chloropropane | 83 | 76 | 65 - 129 | 8 | 30 | | |
| 1,2-Dichlorobenzene | 94 | 85 | 80 - 121 | 9 | 30 | | |
| 1,2-Dichloroethane | 91 | 84 | 68 - 120 | 8 | 30 | | |
| 1,2-Dichloropropane | 97 | 87 | 77 - 124 | 11 | 30 | | |
| 1,3-Dichlorobenzene | 94 | 84 | 79 - 124 | 11 | 30 | | |
| 1,4-Dichlorobenzene | 93 | 83 | 79 - 121 | 12 | 30 | | |
| 1,4-Dioxane | 84 | 70 | 67 - 150 | 17 | 30 | | |
| 2-Butanone (MEK) | 85 | 81 | 61 - 140 | 5 | 30 | | |
| 2-Hexanone | 87 | 80 | 78 - 120 | 8 | 30 | | |
| 4-Methyl-2-pentanone (MIBK) | 87 | 84 | 80 - 120 | 5 | 30 | | |
| Acetone | 90 | 85 | 75 - 120 | 7 | 30 | | |
| Benzene | 94 | 86 | 75 - 127 | 8 | 30 | | |
| Bromoform | 83 | 76 | 19 - 150 | 8 | 30 | | |
| Bromomethane | 97 | 102 | 59 - 136 | 5 | 30 | | |
| Carbon disulfide | 97 | 92 | 74 - 130 | 6 | 30 | | |
| Carbon tetrachloride | 101 | 95 | 77 - 138 | 6 | 30 | | |
| Chlorobenzene | 94 | 86 | 80 - 120 | 9 | 30 | | |
| Chlorobromomethane | 94 | 89 | 80 - 125 | 6 | 30 | | |
| Chlorodibromomethane | 87 | 77 | 67 - 143 | 11 | 30 | | |
| Chloroethane | 99 | 101 | 50 - 139 | 2 | 30 | | |
| Chloroform | 94 | 90 | 80 - 122 | 5 | 30 | | |
| Chloromethane | 95 | 97 | 66 - 128 | 2 | 30 | | |
| cis-1,2-Dichloroethene | 89 | 82 | 80 - 123 | 8 | 30 | | |
| cis-1,3-Dichloropropene | 89 | 79 | 75 - 124 | 12 | 30 | | |
| Cyclohexane | 110 | 103 | 67 - 135 | 7 | 30 | | |
| Dichlorobromomethane | 88 | 80 | 76 - 129 | 10 | 30 | | |
| Dichlorodifluoromethane | 92 | 92 | 72 - 127 | 0 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-427946 **Method: 8260C**
Preparation: N/A

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-427946/3 | Analysis Batch: 460-427946 | Instrument ID: CVOAMS4 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: D34717.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/03/2017 1943 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-427946/4 | Analysis Batch: 460-427946 | Instrument ID: CVOAMS4 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: D34718.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/03/2017 2007 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------------|-----------|------------|-------------------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Ethylbenzene | 100 | 93 | 79 - 124 | 7 | 30 | | |
| Ethylene Dibromide | 88 | 80 | 80 - 122 | 9 | 30 | | |
| Isopropylbenzene | 104 | 97 | 80 - 125 | 7 | 30 | | |
| Methyl acetate | 89 | 84 | 73 - 123 | 6 | 30 | | |
| Methyl tert-butyl ether | 96 | 88 | 80 - 120 | 9 | 30 | | |
| Methylcyclohexane | 116 | 105 | 71 - 137 | 10 | 30 | | |
| Methylene Chloride | 95 | 89 | 79 - 128 | 7 | 30 | | |
| m-Xylene & p-Xylene | 98 | 90 | 79 - 121 | 9 | 30 | | |
| o-Xylene | 100 | 91 | 79 - 123 | 10 | 30 | | |
| Styrene | 99 | 90 | 78 - 123 | 10 | 30 | | |
| Tetrachloroethene | 96 | 85 | 73 - 130 | 12 | 30 | | |
| Toluene | 97 | 88 | 75 - 122 | 10 | 30 | | |
| trans-1,2-Dichloroethene | 98 | 92 | 80 - 129 | 7 | 30 | | |
| trans-1,3-Dichloropropene | 86 | 76 | 72 - 121 | 12 | 30 | | |
| Trichloroethene | 93 | 85 | 79 - 122 | 9 | 30 | | |
| Trichlorofluoromethane | 103 | 104 | 68 - 136 | 1 | 30 | | |
| Vinyl chloride | 99 | 100 | 70 - 134 | 1 | 30 | | |
| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 89 | 88 | 78 - 135 | | | | |
| 4-Bromofluorobenzene | 86 | 82 | 67 - 126 | | | | |
| Dibromofluoromethane (Surr) | 92 | 90 | 61 - 149 | | | | |
| Toluene-d8 (Surr) | 92 | 90 | 73 - 121 | | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-428019

**Method: 8260C
Preparation: N/A**

Lab Sample ID: MB 460-428019/7
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/04/2017 0838
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 460-428019
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CVOAMS9
 Lab File ID: K66013.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------------------|--------|------|------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.38 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.17 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.44 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.41 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.11 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.32 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.47 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.14 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.11 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.17 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.12 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.13 | 1.0 |
| 1,4-Dioxane | 20 | U | 6.4 | 20 |
| 2-Butanone (MEK) | 5.0 | U | 0.77 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.94 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 2.2 | 5.0 |
| Acetone | 1.37 | J | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.20 | 1.0 |
| Bromoform | 1.0 | U | 0.13 | 1.0 |
| Bromomethane | 1.0 | U | 0.32 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.43 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.43 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.14 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.17 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.15 | 1.0 |
| Chloroethane | 1.0 | U | 0.35 | 1.0 |
| Chloroform | 1.0 | U | 0.21 | 1.0 |
| Chloromethane | 1.0 | U | 0.38 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.22 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.15 | 1.0 |
| Cyclohexane | 1.0 | U | 0.46 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.38 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.32 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.18 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.12 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.17 | 1.0 |
| Methyl acetate | 5.0 | U | 0.90 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.17 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.50 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.32 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.11 | 1.0 |
| o-Xylene | 1.0 | U | 0.16 | 1.0 |
| Styrene | 1.0 | U | 0.15 | 1.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-428019

**Method: 8260C
Preparation: N/A**

| | | |
|--------------------------------|----------------------------|-----------------------------|
| Lab Sample ID: MB 460-428019/7 | Analysis Batch: 460-428019 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K66013.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/04/2017 0838 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | |
| Leach Date: N/A | | |

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|------|-----|
| Tetrachloroethene | 1.0 | U | 0.28 | 1.0 |
| Toluene | 1.0 | U | 0.19 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.39 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.10 | 1.0 |
| Trichloroethene | 1.0 | U | 0.26 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.34 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.39 | 1.0 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------------|-------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 98 | 78 - 135 |
| 4-Bromofluorobenzene | 110 | 67 - 126 |
| Dibromofluoromethane (Surr) | 109 | 61 - 149 |
| Toluene-d8 (Surr) | 95 | 73 - 121 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-428019 **Method: 8260C**
Preparation: N/A

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-428019/4 | Analysis Batch: 460-428019 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K66010.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/04/2017 0726 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-428019/5 | Analysis Batch: 460-428019 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K66011.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/04/2017 0750 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|---------------------------------------|--------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 1,1,1-Trichloroethane | 99 | 102 | 80 - 125 | 4 | 30 | | |
| 1,1,2,2-Tetrachloroethane | 95 | 97 | 72 - 131 | 3 | 30 | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 105 | 103 | 78 - 132 | 2 | 30 | | |
| 1,1,2-Trichloroethane | 96 | 97 | 76 - 124 | 1 | 30 | | |
| 1,1-Dichloroethane | 93 | 94 | 80 - 124 | 1 | 30 | | |
| 1,1-Dichloroethene | 95 | 95 | 79 - 132 | 0 | 30 | | |
| 1,2,3-Trichlorobenzene | 98 | 100 | 75 - 123 | 2 | 30 | | |
| 1,2,4-Trichlorobenzene | 97 | 100 | 74 - 124 | 2 | 30 | | |
| 1,2-Dibromo-3-Chloropropane | 86 | 94 | 65 - 129 | 9 | 30 | | |
| 1,2-Dichlorobenzene | 96 | 98 | 80 - 121 | 2 | 30 | | |
| 1,2-Dichloroethane | 98 | 98 | 68 - 120 | 0 | 30 | | |
| 1,2-Dichloropropane | 95 | 97 | 77 - 124 | 2 | 30 | | |
| 1,3-Dichlorobenzene | 94 | 95 | 79 - 124 | 1 | 30 | | |
| 1,4-Dichlorobenzene | 95 | 96 | 79 - 121 | 1 | 30 | | |
| 1,4-Dioxane | 104 | 109 | 67 - 150 | 5 | 30 | | |
| 2-Butanone (MEK) | 112 | 106 | 61 - 140 | 5 | 30 | | |
| 2-Hexanone | 110 | 107 | 78 - 120 | 3 | 30 | | |
| 4-Methyl-2-pentanone (MIBK) | 115 | 112 | 80 - 120 | 2 | 30 | | |
| Acetone | 95 | 89 | 75 - 120 | 7 | 30 | | |
| Benzene | 89 | 91 | 75 - 127 | 2 | 30 | | |
| Bromoform | 104 | 107 | 19 - 150 | 2 | 30 | | |
| Bromomethane | 93 | 94 | 59 - 136 | 2 | 30 | | |
| Carbon disulfide | 91 | 93 | 74 - 130 | 2 | 30 | | |
| Carbon tetrachloride | 96 | 100 | 77 - 138 | 4 | 30 | | |
| Chlorobenzene | 97 | 95 | 80 - 120 | 2 | 30 | | |
| Chlorobromomethane | 108 | 111 | 80 - 125 | 2 | 30 | | |
| Chlorodibromomethane | 96 | 98 | 67 - 143 | 1 | 30 | | |
| Chloroethane | 92 | 94 | 50 - 139 | 2 | 30 | | |
| Chloroform | 99 | 100 | 80 - 122 | 1 | 30 | | |
| Chloromethane | 88 | 88 | 66 - 128 | 0 | 30 | | |
| cis-1,2-Dichloroethene | 100 | 101 | 80 - 123 | 1 | 30 | | |
| cis-1,3-Dichloropropene | 88 | 88 | 75 - 124 | 0 | 30 | | |
| Cyclohexane | 99 | 99 | 67 - 135 | 0 | 30 | | |
| Dichlorobromomethane | 99 | 102 | 76 - 129 | 3 | 30 | | |
| Dichlorodifluoromethane | 96 | 89 | 72 - 127 | 7 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-428019 **Method: 8260C**
Preparation: N/A

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-428019/4 | Analysis Batch: 460-428019 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K66010.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/04/2017 0726 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-428019/5 | Analysis Batch: 460-428019 | Instrument ID: CVOAMS9 |
| Client Matrix: Solid | Prep Batch: N/A | Lab File ID: K66011.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/04/2017 0750 | Units: ug/Kg | Final Weight/Volume: 5 mL |
| Prep Date: N/A | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------------|------------------|-------------------|--------------------------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Ethylbenzene | 100 | 101 | 79 - 124 | 1 | 30 | | |
| Ethylene Dibromide | 99 | 100 | 80 - 122 | 2 | 30 | | |
| Isopropylbenzene | 103 | 105 | 80 - 125 | 1 | 30 | | |
| Methyl acetate | 104 | 106 | 73 - 123 | 2 | 30 | | |
| Methyl tert-butyl ether | 103 | 103 | 80 - 120 | 0 | 30 | | |
| Methylcyclohexane | 100 | 98 | 71 - 137 | 2 | 30 | | |
| Methylene Chloride | 100 | 100 | 79 - 128 | 1 | 30 | | |
| m-Xylene & p-Xylene | 101 | 102 | 79 - 121 | 1 | 30 | | |
| o-Xylene | 102 | 105 | 79 - 123 | 3 | 30 | | |
| Styrene | 102 | 102 | 78 - 123 | 0 | 30 | | |
| Tetrachloroethene | 105 | 105 | 73 - 130 | 0 | 30 | | |
| Toluene | 93 | 95 | 75 - 122 | 2 | 30 | | |
| trans-1,2-Dichloroethene | 98 | 99 | 80 - 129 | 1 | 30 | | |
| trans-1,3-Dichloropropene | 89 | 86 | 72 - 121 | 3 | 30 | | |
| Trichloroethene | 103 | 101 | 79 - 122 | 2 | 30 | | |
| Trichlorofluoromethane | 105 | 106 | 68 - 136 | 1 | 30 | | |
| Vinyl chloride | 91 | 94 | 70 - 134 | 3 | 30 | | |
| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 96 | 96 | 78 - 135 | | | | |
| 4-Bromofluorobenzene | 109 | 110 | 67 - 126 | | | | |
| Dibromofluoromethane (Surr) | 109 | 109 | 61 - 149 | | | | |
| Toluene-d8 (Surr) | 98 | 98 | 73 - 121 | | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-428182

**Method: 8260C
Preparation: 5030C**

Lab Sample ID: MB 460-428182/7
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/05/2017 0118
 Prep Date: 04/05/2017 0118
 Leach Date: N/A

Analysis Batch: 460-428182
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CVOAMS13
 Lab File ID: P25835.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------------------|--------|------|-------|-----|
| 1,1,1-Trichloroethane | 1.0 | U | 0.28 | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 0.19 | 1.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 1.0 | U | 0.34 | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 0.080 | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 0.24 | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 0.34 | 1.0 |
| 1,2,3-Trichlorobenzene | 1.0 | U | 0.35 | 1.0 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 0.27 | 1.0 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 0.23 | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 0.22 | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 0.25 | 1.0 |
| 1,2-Dichloropropane | 1.0 | U | 0.18 | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 0.33 | 1.0 |
| 1,4-Dioxane | 50 | U | 8.7 | 50 |
| 2-Butanone (MEK) | 5.0 | U | 2.2 | 5.0 |
| 2-Hexanone | 5.0 | U | 0.72 | 5.0 |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | U | 0.63 | 5.0 |
| Acetone | 5.0 | U | 1.1 | 5.0 |
| Benzene | 1.0 | U | 0.090 | 1.0 |
| Bromoform | 1.0 | U | 0.18 | 1.0 |
| Bromomethane | 1.0 | U | 0.18 | 1.0 |
| Carbon disulfide | 1.0 | U | 0.22 | 1.0 |
| Carbon tetrachloride | 1.0 | U | 0.33 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.24 | 1.0 |
| Chlorobromomethane | 1.0 | U | 0.30 | 1.0 |
| Chlorodibromomethane | 1.0 | U | 0.22 | 1.0 |
| Chloroethane | 1.0 | U | 0.37 | 1.0 |
| Chloroform | 1.0 | U | 0.22 | 1.0 |
| Chloromethane | 1.0 | U | 0.22 | 1.0 |
| cis-1,2-Dichloroethene | 1.0 | U | 0.26 | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 0.16 | 1.0 |
| Cyclohexane | 1.0 | U | 0.26 | 1.0 |
| Dichlorobromomethane | 1.0 | U | 0.15 | 1.0 |
| Dichlorodifluoromethane | 1.0 | U | 0.14 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.30 | 1.0 |
| Ethylene Dibromide | 1.0 | U | 0.19 | 1.0 |
| Isopropylbenzene | 1.0 | U | 0.32 | 1.0 |
| Methyl acetate | 5.0 | U | 0.58 | 5.0 |
| Methyl tert-butyl ether | 1.0 | U | 0.13 | 1.0 |
| Methylcyclohexane | 1.0 | U | 0.22 | 1.0 |
| Methylene Chloride | 1.0 | U | 0.21 | 1.0 |
| m-Xylene & p-Xylene | 1.0 | U | 0.28 | 1.0 |
| o-Xylene | 1.0 | U | 0.32 | 1.0 |
| Styrene | 1.0 | U | 0.17 | 1.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-428182

**Method: 8260C
Preparation: 5030C**

Lab Sample ID: MB 460-428182/7
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/05/2017 0118
 Prep Date: 04/05/2017 0118
 Leach Date: N/A

Analysis Batch: 460-428182
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CVOAMS13
 Lab File ID: P25835.D
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|-------|-----|
| Tetrachloroethene | 1.0 | U | 0.12 | 1.0 |
| Toluene | 1.0 | U | 0.25 | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 0.18 | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 0.19 | 1.0 |
| Trichloroethene | 1.0 | U | 0.22 | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 0.15 | 1.0 |
| Vinyl chloride | 1.0 | U | 0.060 | 1.0 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------------|-------|-------------------|
| 1,2-Dichloroethane-d4 (Surr) | 88 | 74 - 132 |
| 4-Bromofluorobenzene | 96 | 77 - 124 |
| Dibromofluoromethane (Surr) | 85 | 72 - 131 |
| Toluene-d8 (Surr) | 89 | 80 - 120 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-428182 **Method: 8260C**
Preparation: 5030C

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-428182/3 | Analysis Batch: 460-428182 | Instrument ID: CVOAMS13 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: P25831.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/04/2017 2337 | Units: ug/L | Final Weight/Volume: 5 mL |
| Prep Date: 04/04/2017 2337 | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-428182/4 | Analysis Batch: 460-428182 | Instrument ID: CVOAMS13 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: P25832.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/05/2017 0002 | Units: ug/L | Final Weight/Volume: 5 mL |
| Prep Date: 04/05/2017 0002 | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|---------------------------------------|--------|------|----------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 1,1,1-Trichloroethane | 97 | 92 | 75 - 125 | 6 | 30 | | |
| 1,1,2,2-Tetrachloroethane | 91 | 89 | 74 - 120 | 2 | 30 | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 97 | 90 | 59 - 150 | 8 | 30 | | |
| 1,1,2-Trichloroethane | 93 | 91 | 78 - 120 | 2 | 30 | | |
| 1,1-Dichloroethane | 100 | 97 | 77 - 123 | 3 | 30 | | |
| 1,1-Dichloroethene | 92 | 88 | 74 - 123 | 5 | 30 | | |
| 1,2,3-Trichlorobenzene | 79 | 78 | 78 - 131 | 2 | 30 | | |
| 1,2,4-Trichlorobenzene | 81 | 81 | 80 - 124 | 0 | 30 | | |
| 1,2-Dibromo-3-Chloropropane | 68 | 67 | 55 - 134 | 1 | 30 | | |
| 1,2-Dichlorobenzene | 93 | 91 | 80 - 120 | 2 | 30 | | |
| 1,2-Dichloroethane | 99 | 99 | 76 - 121 | 0 | 30 | | |
| 1,2-Dichloropropane | 102 | 101 | 77 - 123 | 1 | 30 | | |
| 1,3-Dichlorobenzene | 93 | 92 | 80 - 120 | 2 | 30 | | |
| 1,4-Dichlorobenzene | 93 | 92 | 80 - 120 | 1 | 30 | | |
| 1,4-Dioxane | 102 | 98 | 10 - 150 | 4 | 30 | | |
| 2-Butanone (MEK) | 95 | 97 | 64 - 120 | 2 | 30 | | |
| 2-Hexanone | 103 | 104 | 71 - 125 | 0 | 30 | | |
| 4-Methyl-2-pentanone (MIBK) | 105 | 104 | 78 - 124 | 1 | 30 | | |
| Acetone | 93 | 97 | 39 - 150 | 4 | 30 | | |
| Benzene | 101 | 98 | 77 - 121 | 3 | 30 | | |
| Bromoform | 74 | 74 | 53 - 120 | 0 | 30 | | |
| Bromomethane | 98 | 102 | 10 - 150 | 4 | 30 | | |
| Carbon disulfide | 89 | 84 | 69 - 133 | 6 | 30 | | |
| Carbon tetrachloride | 91 | 85 | 70 - 132 | 7 | 30 | | |
| Chlorobenzene | 93 | 91 | 80 - 120 | 2 | 30 | | |
| Chlorobromomethane | 95 | 93 | 77 - 127 | 2 | 30 | | |
| Chlorodibromomethane | 86 | 84 | 73 - 120 | 3 | 30 | | |
| Chloroethane | 74 | 77 | 52 - 150 | 4 | 30 | | |
| Chloroform | 97 | 95 | 80 - 120 | 3 | 30 | | |
| Chloromethane | 98 | 93 | 56 - 131 | 6 | 30 | | |
| cis-1,2-Dichloroethene | 95 | 92 | 80 - 120 | 3 | 30 | | |
| cis-1,3-Dichloropropene | 95 | 93 | 77 - 120 | 2 | 30 | | |
| Cyclohexane | 104 | 97 | 56 - 150 | 7 | 30 | | |
| Dichlorobromomethane | 94 | 92 | 76 - 120 | 2 | 30 | | |
| Dichlorodifluoromethane | 90 | 86 | 50 - 131 | 5 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample/

Method: 8260C

Lab Control Sample Duplicate Recovery Report - Batch: 460-428182

Preparation: 5030C

| | | |
|-------------------------------------|----------------------------|-----------------------------|
| LCS Lab Sample ID: LCS 460-428182/3 | Analysis Batch: 460-428182 | Instrument ID: CVOAMS13 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: P25831.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/04/2017 2337 | Units: ug/L | Final Weight/Volume: 5 mL |
| Prep Date: 04/04/2017 2337 | | 5 mL |
| Leach Date: N/A | | |

| | | |
|---------------------------------------|----------------------------|-----------------------------|
| LCSD Lab Sample ID: LCSD 460-428182/4 | Analysis Batch: 460-428182 | Instrument ID: CVOAMS13 |
| Client Matrix: Water | Prep Batch: N/A | Lab File ID: P25832.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 5 mL |
| Analysis Date: 04/05/2017 0002 | Units: ug/L | Final Weight/Volume: 5 mL |
| Prep Date: 04/05/2017 0002 | | 5 mL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------------|------------------|-------------------|--------------------------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| Ethylbenzene | 95 | 91 | 80 - 120 | 4 | 30 | | |
| Ethylene Dibromide | 90 | 88 | 80 - 120 | 2 | 30 | | |
| Isopropylbenzene | 97 | 94 | 80 - 123 | 4 | 30 | | |
| Methyl acetate | 99 | 96 | 66 - 144 | 3 | 30 | | |
| Methyl tert-butyl ether | 100 | 100 | 79 - 122 | 0 | 30 | | |
| Methylcyclohexane | 99 | 93 | 61 - 145 | 6 | 30 | | |
| Methylene Chloride | 89 | 89 | 77 - 123 | 0 | 30 | | |
| m-Xylene & p-Xylene | 95 | 92 | 80 - 120 | 3 | 30 | | |
| o-Xylene | 95 | 91 | 80 - 120 | 4 | 30 | | |
| Styrene | 94 | 93 | 80 - 120 | 1 | 30 | | |
| Tetrachloroethene | 92 | 89 | 78 - 122 | 4 | 30 | | |
| Toluene | 96 | 93 | 80 - 120 | 3 | 30 | | |
| trans-1,2-Dichloroethene | 93 | 88 | 79 - 120 | 6 | 30 | | |
| trans-1,3-Dichloropropene | 94 | 93 | 76 - 120 | 1 | 30 | | |
| Trichloroethene | 93 | 90 | 77 - 120 | 3 | 30 | | |
| Trichlorofluoromethane | 75 | 71 | 71 - 143 | 5 | 30 | | |
| Vinyl chloride | 99 | 91 | 62 - 138 | 8 | 30 | | |
| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 87 | 86 | 74 - 132 | | | | |
| 4-Bromofluorobenzene | 99 | 100 | 77 - 124 | | | | |
| Dibromofluoromethane (Surr) | 84 | 83 | 72 - 131 | | | | |
| Toluene-d8 (Surr) | 89 | 87 | 80 - 120 | | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-427482

**Method: 8270D
Preparation: 3510C**

Lab Sample ID: MB 460-427482/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/01/2017 0823
 Prep Date: 03/31/2017 1646
 Leach Date: N/A

Analysis Batch: 460-427527
 Prep Batch: 460-427482
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CBNAMS6
 Lab File ID: M239955.D
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 2 mL
 Injection Volume: 5 uL

| Analyte | Result | Qual | MDL | RL |
|------------------------------|--------|------|------|-----|
| 1,1'-Biphenyl | 10 | U | 0.63 | 10 |
| 1,2,4,5-Tetrachlorobenzene | 10 | U | 0.43 | 10 |
| 2,2'-oxybis[1-chloropropane] | 10 | U | 0.93 | 10 |
| 2,3,4,6-Tetrachlorophenol | 10 | U | 0.69 | 10 |
| 2,4,5-Trichlorophenol | 10 | U | 0.49 | 10 |
| 2,4,6-Trichlorophenol | 10 | U | 0.53 | 10 |
| 2,4-Dichlorophenol | 10 | U | 0.63 | 10 |
| 2,4-Dimethylphenol | 10 | U | 0.91 | 10 |
| 2,4-Dinitrophenol | 20 | U | 2.4 | 20 |
| 2,4-Dinitrotoluene | 2.0 | U | 1.0 | 2.0 |
| 2,6-Dinitrotoluene | 2.0 | U | 0.88 | 2.0 |
| 2-Chloronaphthalene | 10 | U | 0.61 | 10 |
| 2-Chlorophenol | 10 | U | 0.74 | 10 |
| 2-Methylnaphthalene | 10 | U | 0.88 | 10 |
| 2-Methylphenol | 10 | U | 1.3 | 10 |
| 2-Nitroaniline | 10 | U | 0.65 | 10 |
| 2-Nitrophenol | 10 | U | 0.59 | 10 |
| 3,3'-Dichlorobenzidine | 10 | U | 1.0 | 10 |
| 3-Nitroaniline | 10 | U | 0.82 | 10 |
| 4,6-Dinitro-2-methylphenol | 20 | U | 2.0 | 20 |
| 4-Bromophenyl phenyl ether | 10 | U | 1.0 | 10 |
| 4-Chloro-3-methylphenol | 10 | U | 0.76 | 10 |
| 4-Chloroaniline | 10 | U | 0.73 | 10 |
| 4-Chlorophenyl phenyl ether | 10 | U | 0.96 | 10 |
| 4-Methylphenol | 10 | U | 0.87 | 10 |
| 4-Nitroaniline | 10 | U | 0.48 | 10 |
| 4-Nitrophenol | 20 | U | 4.7 | 20 |
| Acenaphthene | 10 | U | 0.88 | 10 |
| Acenaphthylene | 10 | U | 0.65 | 10 |
| Acetophenone | 10 | U | 1.0 | 10 |
| Anthracene | 10 | U | 0.57 | 10 |
| Atrazine | 2.0 | U | 0.77 | 2.0 |
| Benzaldehyde | 10 | U | 0.86 | 10 |
| Benzo[a]anthracene | 1.0 | U | 0.55 | 1.0 |
| Benzo[a]pyrene | 1.0 | U | 0.16 | 1.0 |
| Benzo[b]fluoranthene | 1.0 | U | 0.44 | 1.0 |
| Benzo[g,h,i]perylene | 10 | U | 0.75 | 10 |
| Benzo[k]fluoranthene | 1.0 | U | 0.18 | 1.0 |
| Bis(2-chloroethoxy)methane | 10 | U | 0.69 | 10 |
| Bis(2-chloroethyl)ether | 1.0 | U | 0.12 | 1.0 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 0.72 | 2.0 |
| Butyl benzyl phthalate | 10 | U | 0.60 | 10 |
| Caprolactam | 10 | U | 1.1 | 10 |
| Carbazole | 10 | U | 0.85 | 10 |
| Chrysene | 2.0 | U | 0.67 | 2.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-427482

**Method: 8270D
Preparation: 3510C**

Lab Sample ID: MB 460-427482/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/01/2017 0823
 Prep Date: 03/31/2017 1646
 Leach Date: N/A

Analysis Batch: 460-427527
 Prep Batch: 460-427482
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CBNAMS6
 Lab File ID: M239955.D
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 2 mL
 Injection Volume: 5 uL

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|-------|-----|
| Dibenz(a,h)anthracene | 1.0 | U | 0.090 | 1.0 |
| Dibenzofuran | 10 | U | 0.85 | 10 |
| Diethyl phthalate | 10 | U | 1.0 | 10 |
| Dimethyl phthalate | 10 | U | 0.98 | 10 |
| Di-n-butyl phthalate | 10 | U | 0.82 | 10 |
| Di-n-octyl phthalate | 10 | U | 0.69 | 10 |
| Fluoranthene | 10 | U | 0.72 | 10 |
| Fluorene | 10 | U | 0.80 | 10 |
| Hexachlorobenzene | 1.0 | U | 0.47 | 1.0 |
| Hexachlorobutadiene | 1.0 | U | 0.76 | 1.0 |
| Hexachlorocyclopentadiene | 10 | U | 0.61 | 10 |
| Hexachloroethane | 1.0 | U | 0.090 | 1.0 |
| Indeno[1,2,3-cd]pyrene | 1.0 | U | 0.21 | 1.0 |
| Isophorone | 10 | U | 0.67 | 10 |
| Naphthalene | 10 | U | 0.80 | 10 |
| Nitrobenzene | 1.0 | U | 0.49 | 1.0 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 0.83 | 1.0 |
| N-Nitrosodiphenylamine | 10 | U | 0.74 | 10 |
| Pentachlorophenol | 20 | U | 2.2 | 20 |
| Phenanthrene | 10 | U | 0.65 | 10 |
| Phenol | 10 | U | 0.41 | 10 |
| Pyrene | 10 | U | 0.83 | 10 |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 79 | 26 - 139 |
| 2-Fluorobiphenyl | 63 | 45 - 107 |
| 2-Fluorophenol (Surr) | 32 | 25 - 58 |
| Nitrobenzene-d5 (Surr) | 65 | 51 - 108 |
| Phenol-d5 (Surr) | 21 | 14 - 39 |
| Terphenyl-d14 (Surr) | 82 | 40 - 148 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample - Batch: 460-427482

**Method: 8270D
Preparation: 3510C**

Lab Sample ID: LCS 460-427482/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/01/2017 0845
Prep Date: 03/31/2017 1646
Leach Date: N/A

Analysis Batch: 460-427527
Prep Batch: 460-427482
Leach Batch: N/A
Units: ug/L

Instrument ID: CBNAMS6
Lab File ID: M239956.D
Initial Weight/Volume: 250 mL
Final Weight/Volume: 2 mL
Injection Volume: 5 uL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------------|--------------|--------|--------|----------|------|
| 1,1'-Biphenyl | 80.0 | 44.7 | 56 | 54 - 108 | |
| 1,2,4,5-Tetrachlorobenzene | 80.0 | 40.2 | 50 | 46 - 105 | |
| 2,2'-oxybis[1-chloropropane] | 80.0 | 51.2 | 64 | 50 - 108 | |
| 2,3,4,6-Tetrachlorophenol | 80.0 | 60.1 | 75 | 57 - 122 | |
| 2,4,5-Trichlorophenol | 80.0 | 61.2 | 76 | 59 - 117 | |
| 2,4,6-Trichlorophenol | 80.0 | 55.5 | 69 | 62 - 120 | |
| 2,4-Dichlorophenol | 80.0 | 58.4 | 73 | 62 - 102 | |
| 2,4-Dimethylphenol | 80.0 | 53.9 | 67 | 61 - 95 | |
| 2,4-Dinitrophenol | 160 | 121 | 76 | 45 - 125 | |
| 2,4-Dinitrotoluene | 80.0 | 64.6 | 81 | 70 - 123 | |
| 2,6-Dinitrotoluene | 80.0 | 60.2 | 75 | 68 - 121 | |
| 2-Chloronaphthalene | 80.0 | 43.1 | 54 | 54 - 105 | |
| 2-Chlorophenol | 80.0 | 47.0 | 59 | 54 - 92 | |
| 2-Methylnaphthalene | 80.0 | 43.9 | 55 | 47 - 104 | |
| 2-Methylphenol | 80.0 | 40.7 | 51 | 43 - 80 | |
| 2-Nitroaniline | 80.0 | 54.6 | 68 | 46 - 124 | |
| 2-Nitrophenol | 80.0 | 54.5 | 68 | 58 - 109 | |
| 3,3'-Dichlorobenzidine | 80.0 | 59.4 | 74 | 68 - 123 | |
| 3-Nitroaniline | 80.0 | 58.9 | 74 | 60 - 117 | |
| 4,6-Dinitro-2-methylphenol | 160 | 137 | 86 | 59 - 132 | |
| 4-Bromophenyl phenyl ether | 80.0 | 59.9 | 75 | 57 - 126 | |
| 4-Chloro-3-methylphenol | 80.0 | 54.1 | 68 | 58 - 98 | |
| 4-Chloroaniline | 80.0 | 58.3 | 73 | 51 - 108 | |
| 4-Chlorophenyl phenyl ether | 80.0 | 57.1 | 71 | 60 - 114 | |
| 4-Methylphenol | 80.0 | 41.3 | 52 | 34 - 78 | |
| 4-Nitroaniline | 80.0 | 62.8 | 79 | 48 - 135 | |
| 4-Nitrophenol | 160 | 38.7 | 24 | 11 - 47 | |
| Acenaphthene | 80.0 | 50.1 | 63 | 58 - 107 | |
| Acenaphthylene | 80.0 | 51.5 | 64 | 61 - 106 | |
| Acetophenone | 80.0 | 57.6 | 72 | 54 - 115 | |
| Anthracene | 80.0 | 63.6 | 80 | 70 - 118 | |
| Benzo[a]anthracene | 80.0 | 57.0 | 71 | 73 - 119 | * |
| Benzo[a]pyrene | 80.0 | 66.3 | 83 | 76 - 125 | |
| Benzo[b]fluoranthene | 80.0 | 66.2 | 83 | 78 - 123 | |
| Benzo[g,h,i]perylene | 80.0 | 73.0 | 91 | 63 - 133 | |
| Benzo[k]fluoranthene | 80.0 | 60.0 | 75 | 71 - 126 | |
| Bis(2-chloroethoxy)methane | 80.0 | 59.9 | 75 | 67 - 104 | |
| Bis(2-chloroethyl)ether | 80.0 | 51.5 | 64 | 63 - 106 | |
| Bis(2-ethylhexyl) phthalate | 80.0 | 67.4 | 84 | 63 - 135 | |
| Butyl benzyl phthalate | 80.0 | 62.8 | 79 | 66 - 129 | |
| Carbazole | 80.0 | 61.0 | 76 | 68 - 121 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample - Batch: 460-427482

**Method: 8270D
Preparation: 3510C**

| | | |
|-----------------------------------|----------------------------|-------------------------------|
| Lab Sample ID: LCS 460-427482/2-A | Analysis Batch: 460-427527 | Instrument ID: CBNAMS6 |
| Client Matrix: Water | Prep Batch: 460-427482 | Lab File ID: M239956.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 04/01/2017 0845 | Units: ug/L | Final Weight/Volume: 2 mL |
| Prep Date: 03/31/2017 1646 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------------------------|--------------|--------|--------|----------|------|
| Chrysene | 80.0 | 53.6 | 67 | 73 - 121 | * |
| Dibenz(a,h)anthracene | 80.0 | 74.4 | 93 | 59 - 136 | |
| Dibenzofuran | 80.0 | 51.8 | 65 | 67 - 108 | * |
| Diethyl phthalate | 80.0 | 62.7 | 78 | 61 - 129 | |
| Dimethyl phthalate | 80.0 | 59.9 | 75 | 65 - 121 | |
| Di-n-butyl phthalate | 80.0 | 61.7 | 77 | 64 - 130 | |
| Di-n-octyl phthalate | 80.0 | 68.6 | 86 | 64 - 131 | |
| Fluoranthene | 80.0 | 60.2 | 75 | 66 - 123 | |
| Fluorene | 80.0 | 57.1 | 71 | 67 - 112 | |
| Hexachlorobenzene | 80.0 | 63.3 | 79 | 63 - 125 | |
| Hexachlorobutadiene | 80.0 | 35.3 | 44 | 34 - 99 | |
| Hexachlorocyclopentadiene | 80.0 | 33.1 | 41 | 18 - 99 | |
| Hexachloroethane | 80.0 | 30.9 | 39 | 39 - 92 | |
| Indeno[1,2,3-cd]pyrene | 80.0 | 75.0 | 94 | 57 - 142 | |
| Isophorone | 80.0 | 56.7 | 71 | 55 - 105 | |
| Naphthalene | 80.0 | 45.3 | 57 | 51 - 98 | |
| Nitrobenzene | 80.0 | 54.3 | 68 | 56 - 106 | |
| N-Nitrosodi-n-propylamine | 80.0 | 51.8 | 65 | 48 - 118 | |
| N-Nitrosodiphenylamine | 80.0 | 60.0 | 75 | 69 - 118 | |
| Pentachlorophenol | 160 | 136 | 85 | 54 - 120 | |
| Phenanthrene | 80.0 | 61.6 | 77 | 70 - 117 | |
| Phenol | 80.0 | 22.0 | 27 | 16 - 43 | |
| Pyrene | 80.0 | 61.6 | 77 | 63 - 129 | |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 77 | 26 - 139 |
| 2-Fluorobiphenyl | 63 | 45 - 107 |
| 2-Fluorophenol (Surr) | 35 | 25 - 58 |
| Nitrobenzene-d5 (Surr) | 68 | 51 - 108 |
| Phenol-d5 (Surr) | 23 | 14 - 39 |
| Terphenyl-d14 (Surr) | 76 | 40 - 148 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample - Batch: 460-427482

Method: 8270D
Preparation: 3510C

| | | |
|-----------------------------------|----------------------------|-------------------------------|
| Lab Sample ID: LCS 460-427482/3-A | Analysis Batch: 460-427527 | Instrument ID: CBNAMS6 |
| Client Matrix: Water | Prep Batch: 460-427482 | Lab File ID: M239957.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 04/01/2017 0906 | Units: ug/L | Final Weight/Volume: 2 mL |
| Prep Date: 03/31/2017 1646 | | Injection Volume: 5 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------------------------|--------------|--------|--------|-------------------|------|
| Atrazine | 160 | 145 | 91 | 38 - 146 | |
| Benzaldehyde | 160 | 107 | 67 | 46 - 111 | |
| Caprolactam | 160 | 32.1 | 20 | 10 - 43 | |
| Surrogate | | % Rec | | Acceptance Limits | |
| 2,4,6-Tribromophenol (Surr) | | 63 | | 26 - 139 | |
| 2-Fluorobiphenyl | | 59 | | 45 - 107 | |
| 2-Fluorophenol (Surr) | | 33 | | 25 - 58 | |
| Nitrobenzene-d5 (Surr) | | 72 | | 51 - 108 | |
| Phenol-d5 (Surr) | | 21 | | 14 - 39 | |
| Terphenyl-d14 (Surr) | | 87 | | 40 - 148 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427482**

**Method: 8270D
Preparation: 3510C**

MS Lab Sample ID: 460-130598-I-3-A MS
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/01/2017 0928
Prep Date: 03/31/2017 1646
Leach Date: N/A

Analysis Batch: 460-427527
Prep Batch: 460-427482
Leach Batch: N/A

Instrument ID: CBNAMS6
Lab File ID: M239958.D
Initial Weight/Volume: 250 mL
Final Weight/Volume: 2 mL
Injection Volume: 5 uL

MSD Lab Sample ID: 460-130598-I-3-B MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/01/2017 0949
Prep Date: 03/31/2017 1646
Leach Date: N/A

Analysis Batch: 460-427527
Prep Batch: 460-427482
Leach Batch: N/A

Instrument ID: CBNAMS6
Lab File ID: M239959.D
Initial Weight/Volume: 250 mL
Final Weight/Volume: 2 mL
Injection Volume: 5 uL

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| 1,1'-Biphenyl | 75 | 71 | 54 - 108 | 5 | 30 | | |
| 1,2,4,5-Tetrachlorobenzene | 69 | 67 | 46 - 105 | 3 | 30 | | |
| 2,2'-oxybis[1-chloropropane] | 67 | 69 | 50 - 108 | 2 | 30 | | |
| 2,3,4,6-Tetrachlorophenol | 75 | 75 | 57 - 122 | 0 | 30 | | |
| 2,4,5-Trichlorophenol | 80 | 78 | 59 - 117 | 2 | 30 | | |
| 2,4,6-Trichlorophenol | 75 | 76 | 62 - 120 | 2 | 30 | | |
| 2,4-Dichlorophenol | 73 | 78 | 62 - 102 | 7 | 30 | | |
| 2,4-Dimethylphenol | 69 | 71 | 61 - 95 | 3 | 30 | | |
| 2,4-Dinitrophenol | 74 | 81 | 45 - 125 | 9 | 30 | | |
| 2,4-Dinitrotoluene | 78 | 77 | 70 - 123 | 1 | 30 | | |
| 2,6-Dinitrotoluene | 78 | 78 | 68 - 121 | 0 | 30 | | |
| 2-Chloronaphthalene | 66 | 67 | 54 - 105 | 1 | 30 | | |
| 2-Chlorophenol | 61 | 62 | 54 - 92 | 2 | 30 | | |
| 2-Methylnaphthalene | 65 | 68 | 47 - 104 | 5 | 30 | | |
| 2-Methylphenol | 53 | 54 | 43 - 80 | 3 | 30 | | |
| 2-Nitroaniline | 65 | 62 | 46 - 124 | 5 | 30 | | |
| 2-Nitrophenol | 71 | 75 | 58 - 109 | 5 | 30 | | |
| 3,3'-Dichlorobenzidine | 23 | 12 | 68 - 123 | 63 | 30 | * | J* |
| 3-Nitroaniline | 62 | 62 | 60 - 117 | 0 | 30 | | |
| 4,6-Dinitro-2-methylphenol | 83 | 82 | 59 - 132 | 1 | 30 | | |
| 4-Bromophenyl phenyl ether | 80 | 81 | 57 - 126 | 1 | 30 | | |
| 4-Chloro-3-methylphenol | 66 | 71 | 58 - 98 | 7 | 30 | | |
| 4-Chloroaniline | 75 | 75 | 51 - 108 | 0 | 30 | | |
| 4-Chlorophenyl phenyl ether | 76 | 78 | 60 - 114 | 2 | 30 | | |
| 4-Methylphenol | 53 | 56 | 34 - 78 | 6 | 30 | | |
| 4-Nitroaniline | 54 | 51 | 48 - 135 | 5 | 30 | | |
| 4-Nitrophenol | 21 | 22 | 11 - 47 | 1 | 30 | | |
| Acenaphthene | 77 | 72 | 58 - 107 | 7 | 30 | | |
| Acenaphthylene | 74 | 71 | 61 - 106 | 5 | 30 | | |
| Acetophenone | 71 | 75 | 54 - 115 | 6 | 30 | | |
| Anthracene | 77 | 79 | 70 - 118 | 2 | 30 | | |
| Atrazine | 84 | 83 | 38 - 146 | 2 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427482**

**Method: 8270D
Preparation: 3510C**

MS Lab Sample ID: 460-130598-I-3-A MS
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/01/2017 0928
Prep Date: 03/31/2017 1646
Leach Date: N/A

Analysis Batch: 460-427527
Prep Batch: 460-427482
Leach Batch: N/A

Instrument ID: CBNAMS6
Lab File ID: M239958.D
Initial Weight/Volume: 250 mL
Final Weight/Volume: 2 mL
Injection Volume: 5 uL

MSD Lab Sample ID: 460-130598-I-3-B MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/01/2017 0949
Prep Date: 03/31/2017 1646
Leach Date: N/A

Analysis Batch: 460-427527
Prep Batch: 460-427482
Leach Batch: N/A

Instrument ID: CBNAMS6
Lab File ID: M239959.D
Initial Weight/Volume: 250 mL
Final Weight/Volume: 2 mL
Injection Volume: 5 uL

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|-----------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Benzaldehyde | 62 | 63 | 46 - 111 | 1 | 30 | | |
| Benzo[a]anthracene | 74 | 78 | 73 - 119 | 6 | 30 | | |
| Benzo[a]pyrene | 81 | 81 | 76 - 125 | 1 | 30 | | |
| Benzo[b]fluoranthene | 77 | 81 | 78 - 123 | 5 | 30 | * | |
| Benzo[g,h,i]perylene | 88 | 90 | 63 - 133 | 3 | 30 | | |
| Benzo[k]fluoranthene | 72 | 81 | 71 - 126 | 12 | 30 | | |
| Bis(2-chloroethoxy)methane | 71 | 78 | 67 - 104 | 10 | 30 | | |
| Bis(2-chloroethyl)ether | 60 | 63 | 63 - 106 | 4 | 30 | * | |
| Bis(2-ethylhexyl) phthalate | 85 | 88 | 63 - 135 | 4 | 30 | | |
| Butyl benzyl phthalate | 77 | 82 | 66 - 129 | 7 | 30 | | |
| Caprolactam | 21 | 20 | 10 - 43 | 2 | 30 | | |
| Carbazole | 71 | 73 | 68 - 121 | 2 | 30 | | |
| Chrysene | 75 | 76 | 73 - 121 | 1 | 30 | | |
| Dibenz(a,h)anthracene | 91 | 95 | 59 - 136 | 5 | 30 | | |
| Dibenzofuran | 77 | 74 | 67 - 108 | 5 | 30 | | |
| Diethyl phthalate | 76 | 76 | 61 - 129 | 1 | 30 | | |
| Dimethyl phthalate | 75 | 76 | 65 - 121 | 2 | 30 | | |
| Di-n-butyl phthalate | 79 | 77 | 64 - 130 | 2 | 30 | | |
| Di-n-octyl phthalate | 76 | 76 | 64 - 131 | 1 | 30 | | |
| Fluoranthene | 71 | 70 | 66 - 123 | 2 | 30 | | |
| Fluorene | 80 | 76 | 67 - 112 | 6 | 30 | | |
| Hexachlorobenzene | 87 | 88 | 63 - 125 | 1 | 30 | | |
| Hexachlorobutadiene | 51 | 50 | 34 - 99 | 2 | 30 | | |
| Hexachlorocyclopentadiene | 62 | 60 | 18 - 99 | 3 | 30 | | |
| Hexachloroethane | 51 | 49 | 39 - 92 | 3 | 30 | | |
| Indeno[1,2,3-cd]pyrene | 95 | 93 | 57 - 142 | 2 | 30 | | |
| Isophorone | 68 | 73 | 55 - 105 | 8 | 30 | | |
| Naphthalene | 64 | 68 | 51 - 98 | 6 | 30 | | |
| Nitrobenzene | 70 | 74 | 56 - 106 | 5 | 30 | | |
| N-Nitrosodi-n-propylamine | 64 | 65 | 48 - 118 | 2 | 30 | | |
| N-Nitrosodiphenylamine | 85 | 81 | 69 - 118 | 5 | 30 | | |
| Pentachlorophenol | 84 | 81 | 54 - 120 | 5 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427482**

**Method: 8270D
Preparation: 3510C**

MS Lab Sample ID: 460-130598-I-3-A MS
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/01/2017 0928
Prep Date: 03/31/2017 1646
Leach Date: N/A

Analysis Batch: 460-427527
Prep Batch: 460-427482
Leach Batch: N/A

Instrument ID: CBNAMS6
Lab File ID: M239958.D
Initial Weight/Volume: 250 mL
Final Weight/Volume: 2 mL
Injection Volume: 5 uL

MSD Lab Sample ID: 460-130598-I-3-B MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/01/2017 0949
Prep Date: 03/31/2017 1646
Leach Date: N/A

Analysis Batch: 460-427527
Prep Batch: 460-427482
Leach Batch: N/A

Instrument ID: CBNAMS6
Lab File ID: M239959.D
Initial Weight/Volume: 250 mL
Final Weight/Volume: 2 mL
Injection Volume: 5 uL

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|--------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Phenanthrene | 76 | 80 | 70 - 117 | 5 | 30 | | |
| Phenol | 29 | 30 | 16 - 43 | 4 | 30 | | |
| Pyrene | 77 | 80 | 63 - 129 | 3 | 30 | | |

| Surrogate | MS % Rec | MSD % Rec | Acceptance Limits |
|-----------------------------|----------|-----------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 70 | 76 | 26 - 139 |
| 2-Fluorobiphenyl | 71 | 71 | 45 - 107 |
| 2-Fluorophenol (Surr) | 35 | 36 | 25 - 58 |
| Nitrobenzene-d5 (Surr) | 65 | 68 | 51 - 108 |
| Phenol-d5 (Surr) | 22 | 23 | 14 - 39 |
| Terphenyl-d14 (Surr) | 72 | 72 | 40 - 148 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-427681

**Method: 8270D
Preparation: 3546**

Lab Sample ID: MB 460-427681/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/03/2017 0521
 Prep Date: 04/02/2017 0723
 Leach Date: N/A

Analysis Batch: 460-427760
 Prep Batch: 460-427681
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CBNAMS12
 Lab File ID: L138700.D
 Initial Weight/Volume: 15.0000 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

| Analyte | Result | Qual | MDL | RL |
|------------------------------|--------|------|-----|-----|
| 1,1'-Biphenyl | 330 | U | 28 | 330 |
| 1,2,4,5-Tetrachlorobenzene | 330 | U | 25 | 330 |
| 2,2'-oxybis[1-chloropropane] | 330 | U | 14 | 330 |
| 2,3,4,6-Tetrachlorophenol | 330 | U | 31 | 330 |
| 2,4,5-Trichlorophenol | 330 | U | 33 | 330 |
| 2,4,6-Trichlorophenol | 130 | U | 9.4 | 130 |
| 2,4-Dichlorophenol | 130 | U | 7.8 | 130 |
| 2,4-Dimethylphenol | 330 | U | 73 | 330 |
| 2,4-Dinitrophenol | 270 | U | 250 | 270 |
| 2,4-Dinitrotoluene | 67 | U | 13 | 67 |
| 2,6-Dinitrotoluene | 67 | U | 18 | 67 |
| 2-Chloronaphthalene | 330 | U | 7.5 | 330 |
| 2-Chlorophenol | 330 | U | 8.4 | 330 |
| 2-Methylnaphthalene | 330 | U | 7.3 | 330 |
| 2-Methylphenol | 330 | U | 14 | 330 |
| 2-Nitroaniline | 330 | U | 11 | 330 |
| 2-Nitrophenol | 330 | U | 11 | 330 |
| 3,3'-Dichlorobenzidine | 130 | U | 37 | 130 |
| 3-Nitroaniline | 330 | U | 9.8 | 330 |
| 4,6-Dinitro-2-methylphenol | 270 | U | 88 | 270 |
| 4-Bromophenyl phenyl ether | 330 | U | 10 | 330 |
| 4-Chloro-3-methylphenol | 330 | U | 14 | 330 |
| 4-Chloroaniline | 330 | U | 8.5 | 330 |
| 4-Chlorophenyl phenyl ether | 330 | U | 9.9 | 330 |
| 4-Methylphenol | 330 | U | 9.0 | 330 |
| 4-Nitroaniline | 330 | U | 13 | 330 |
| 4-Nitrophenol | 670 | U | 160 | 670 |
| Acenaphthene | 330 | U | 8.0 | 330 |
| Acenaphthylene | 330 | U | 8.5 | 330 |
| Acetophenone | 330 | U | 7.2 | 330 |
| Anthracene | 330 | U | 31 | 330 |
| Atrazine | 130 | U | 15 | 130 |
| Benzaldehyde | 330 | U | 25 | 330 |
| Benzo[a]anthracene | 33 | U | 28 | 33 |
| Benzo[a]pyrene | 33 | U | 10 | 33 |
| Benzo[b]fluoranthene | 33 | U | 13 | 33 |
| Benzo[g,h,i]perylene | 330 | U | 19 | 330 |
| Benzo[k]fluoranthene | 33 | U | 14 | 33 |
| Bis(2-chloroethoxy)methane | 330 | U | 10 | 330 |
| Bis(2-chloroethyl)ether | 33 | U | 7.8 | 33 |
| Bis(2-ethylhexyl) phthalate | 330 | U | 13 | 330 |
| Butyl benzyl phthalate | 330 | U | 10 | 330 |
| Caprolactam | 330 | U | 24 | 330 |
| Carbazole | 330 | U | 8.2 | 330 |
| Chrysene | 330 | U | 9.0 | 330 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-427681

**Method: 8270D
Preparation: 3546**

Lab Sample ID: MB 460-427681/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/03/2017 0521
 Prep Date: 04/02/2017 0723
 Leach Date: N/A

Analysis Batch: 460-427760
 Prep Batch: 460-427681
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CBNAMS12
 Lab File ID: L138700.D
 Initial Weight/Volume: 15.0000 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

| Analyte | Result | Qual | MDL | RL |
|---------------------------|--------|------|-----|-----|
| Dibenz(a,h)anthracene | 33 | U | 17 | 33 |
| Dibenzofuran | 330 | U | 10 | 330 |
| Diethyl phthalate | 330 | U | 9.4 | 330 |
| Dimethyl phthalate | 330 | U | 9.6 | 330 |
| Di-n-butyl phthalate | 330 | U | 9.9 | 330 |
| Di-n-octyl phthalate | 330 | U | 17 | 330 |
| Fluoranthene | 330 | U | 9.8 | 330 |
| Fluorene | 330 | U | 7.2 | 330 |
| Hexachlorobenzene | 33 | U | 13 | 33 |
| Hexachlorobutadiene | 67 | U | 9.3 | 67 |
| Hexachlorocyclopentadiene | 330 | U | 21 | 330 |
| Hexachloroethane | 33 | U | 12 | 33 |
| Indeno[1,2,3-cd]pyrene | 33 | U | 22 | 33 |
| Isophorone | 130 | U | 7.1 | 130 |
| Naphthalene | 330 | U | 8.4 | 330 |
| Nitrobenzene | 33 | U | 10 | 33 |
| N-Nitrosodi-n-propylamine | 33 | U | 11 | 33 |
| N-Nitrosodiphenylamine | 330 | U | 30 | 330 |
| Pentachlorophenol | 270 | U | 40 | 270 |
| Phenanthrene | 330 | U | 8.8 | 330 |
| Phenol | 330 | U | 11 | 330 |
| Pyrene | 330 | U | 15 | 330 |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 70 | 10 - 103 |
| 2-Fluorobiphenyl | 69 | 38 - 95 |
| 2-Fluorophenol (Surr) | 76 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 89 | 37 - 94 |
| Phenol-d5 (Surr) | 83 | 32 - 91 |
| Terphenyl-d14 (Surr) | 75 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample - Batch: 460-427681

**Method: 8270D
Preparation: 3546**

| | | | | | |
|----------------|--------------------|-----------------|------------|------------------------|-----------|
| Lab Sample ID: | LCS 460-427681/2-A | Analysis Batch: | 460-427760 | Instrument ID: | CBNAMS12 |
| Client Matrix: | Solid | Prep Batch: | 460-427681 | Lab File ID: | L138701.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 15.0000 g |
| Analysis Date: | 04/03/2017 0542 | Units: | ug/Kg | Final Weight/Volume: | 1 mL |
| Prep Date: | 04/02/2017 0723 | | | Injection Volume: | 1 uL |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------------|--------------|--------|--------|----------|------|
| 1,1'-Biphenyl | 3330 | 2920 | 88 | 64 - 108 | |
| 1,2,4,5-Tetrachlorobenzene | 3330 | 2880 | 87 | 57 - 112 | |
| 2,2'-oxybis[1-chloropropane] | 3330 | 2950 | 88 | 39 - 122 | |
| 2,3,4,6-Tetrachlorophenol | 3330 | 2900 | 87 | 60 - 114 | |
| 2,4,5-Trichlorophenol | 3330 | 2920 | 88 | 60 - 106 | |
| 2,4,6-Trichlorophenol | 3330 | 2860 | 86 | 62 - 110 | |
| 2,4-Dichlorophenol | 3330 | 2840 | 85 | 61 - 103 | |
| 2,4-Dimethylphenol | 3330 | 2920 | 88 | 63 - 101 | |
| 2,4-Dinitrophenol | 6670 | 6610 | 99 | 56 - 122 | |
| 2,4-Dinitrotoluene | 3330 | 3360 | 101 | 66 - 122 | |
| 2,6-Dinitrotoluene | 3330 | 3010 | 90 | 70 - 114 | |
| 2-Chloronaphthalene | 3330 | 2780 | 83 | 63 - 107 | |
| 2-Chlorophenol | 3330 | 2720 | 81 | 62 - 97 | |
| 2-Methylnaphthalene | 3330 | 2900 | 87 | 65 - 104 | |
| 2-Methylphenol | 3330 | 3040 | 91 | 61 - 103 | |
| 2-Nitroaniline | 3330 | 3410 | 102 | 57 - 114 | |
| 2-Nitrophenol | 3330 | 2830 | 85 | 65 - 104 | |
| 3,3'-Dichlorobenzidine | 3330 | 1070 | 32 | 18 - 88 | |
| 3-Nitroaniline | 3330 | 1640 | 49 | 30 - 94 | |
| 4,6-Dinitro-2-methylphenol | 6670 | 5540 | 83 | 67 - 120 | |
| 4-Bromophenyl phenyl ether | 3330 | 2620 | 79 | 59 - 122 | |
| 4-Chloro-3-methylphenol | 3330 | 3410 | 102 | 62 - 111 | |
| 4-Chloroaniline | 3330 | 935 | 28 | 18 - 94 | |
| 4-Chlorophenyl phenyl ether | 3330 | 3100 | 93 | 66 - 110 | |
| 4-Methylphenol | 3330 | 2830 | 85 | 61 - 105 | |
| 4-Nitroaniline | 3330 | 2620 | 79 | 49 - 118 | |
| 4-Nitrophenol | 6670 | 8500 | 128 | 43 - 141 | |
| Acenaphthene | 3330 | 2780 | 83 | 62 - 108 | |
| Acenaphthylene | 3330 | 3040 | 91 | 67 - 107 | |
| Acetophenone | 3330 | 3200 | 96 | 60 - 109 | |
| Anthracene | 3330 | 2870 | 86 | 69 - 111 | |
| Benzo[a]anthracene | 3330 | 2940 | 88 | 68 - 110 | |
| Benzo[a]pyrene | 3330 | 3120 | 94 | 72 - 115 | |
| Benzo[b]fluoranthene | 3330 | 3090 | 93 | 69 - 119 | |
| Benzo[g,h,i]perylene | 3330 | 2570 | 77 | 54 - 128 | |
| Benzo[k]fluoranthene | 3330 | 3120 | 94 | 70 - 115 | |
| Bis(2-chloroethoxy)methane | 3330 | 3260 | 98 | 65 - 106 | |
| Bis(2-chloroethyl)ether | 3330 | 3150 | 94 | 64 - 105 | |
| Bis(2-ethylhexyl) phthalate | 3330 | 3520 | 106 | 63 - 125 | |
| Butyl benzyl phthalate | 3330 | 3490 | 105 | 65 - 125 | |
| Carbazole | 3330 | 2970 | 89 | 66 - 115 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample - Batch: 460-427681

**Method: 8270D
Preparation: 3546**

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-427681/2-A | Analysis Batch: 460-427760 | Instrument ID: CBNAMS12 |
| Client Matrix: Solid | Prep Batch: 460-427681 | Lab File ID: L138701.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 04/03/2017 0542 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 04/02/2017 0723 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------------------------|--------------|--------|--------|----------|------|
| Chrysene | 3330 | 3050 | 92 | 70 - 111 | |
| Dibenz(a,h)anthracene | 3330 | 2750 | 83 | 60 - 130 | |
| Dibenzofuran | 3330 | 2980 | 89 | 67 - 107 | |
| Diethyl phthalate | 3330 | 3330 | 100 | 66 - 117 | |
| Dimethyl phthalate | 3330 | 3070 | 92 | 68 - 112 | |
| Di-n-butyl phthalate | 3330 | 3260 | 98 | 67 - 119 | |
| Di-n-octyl phthalate | 3330 | 3990 | 120 | 57 - 138 | |
| Fluoranthene | 3330 | 3040 | 91 | 64 - 114 | |
| Fluorene | 3330 | 3040 | 91 | 66 - 110 | |
| Hexachlorobenzene | 3330 | 2640 | 79 | 57 - 128 | |
| Hexachlorobutadiene | 3330 | 2890 | 87 | 60 - 108 | |
| Hexachlorocyclopentadiene | 3330 | 3220 | 97 | 50 - 129 | |
| Hexachloroethane | 3330 | 2970 | 89 | 63 - 99 | |
| Indeno[1,2,3-cd]pyrene | 3330 | 2750 | 82 | 53 - 137 | |
| Isophorone | 3330 | 3800 | 114 | 68 - 111 | * |
| Naphthalene | 3330 | 2810 | 84 | 65 - 102 | |
| Nitrobenzene | 3330 | 3600 | 108 | 66 - 108 | |
| N-Nitrosodi-n-propylamine | 3330 | 4040 | 121 | 63 - 117 | * |
| N-Nitrosodiphenylamine | 3330 | 2730 | 82 | 65 - 114 | |
| Pentachlorophenol | 6670 | 4670 | 70 | 56 - 116 | |
| Phenanthrene | 3330 | 2780 | 83 | 68 - 111 | |
| Phenol | 3330 | 3310 | 99 | 58 - 103 | |
| Pyrene | 3330 | 3260 | 98 | 64 - 121 | |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 85 | 10 - 103 |
| 2-Fluorobiphenyl | 80 | 38 - 95 |
| 2-Fluorophenol (Surr) | 85 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 104 | 37 - 94 |
| Phenol-d5 (Surr) | 93 | 32 - 91 |
| Terphenyl-d14 (Surr) | 87 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample - Batch: 460-427681

Method: 8270D
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-427681/3-A | Analysis Batch: 460-427760 | Instrument ID: CBNAMS12 |
| Client Matrix: Solid | Prep Batch: 460-427681 | Lab File ID: L138702.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 04/03/2017 0603 | Units: ug/Kg | Final Weight/Volume: 1 mL |
| Prep Date: 04/02/2017 0723 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|--------------|--------------|--------|--------|----------|------|
| Atrazine | 6670 | 6590 | 99 | 62 - 137 | |
| Benzaldehyde | 6670 | 6720 | 101 | 52 - 113 | |
| Caprolactam | 6670 | 8480 | 127 | 53 - 148 | |

| Surrogate | % Rec | Acceptance Limits |
|-----------------------------|-------|-------------------|
| 2,4,6-Tribromophenol (Surr) | 74 | 10 - 103 |
| 2-Fluorobiphenyl | 80 | 38 - 95 |
| 2-Fluorophenol (Surr) | 83 | 25 - 92 |
| Nitrobenzene-d5 (Surr) | 101 | 37 - 94 |
| Phenol-d5 (Surr) | 86 | 32 - 91 |
| Terphenyl-d14 (Surr) | 86 | 24 - 109 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427681**

**Method: 8270D
Preparation: 3546**

MS Lab Sample ID: 460-130644-E-14-A MS Analysis Batch: 460-427760
 Client Matrix: Solid Prep Batch: 460-427681
 Dilution: 5.0 Leach Batch: N/A
 Analysis Date: 04/03/2017 1414
 Prep Date: 04/02/2017 0723
 Leach Date: N/A

Instrument ID: CBNAMS12
 Lab File ID: L138725.D
 Initial Weight/Volume: 15.0234 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

MSD Lab Sample ID: 460-130644-E-14-B MSD Analysis Batch: 460-427760
 Client Matrix: Solid Prep Batch: 460-427681
 Dilution: 5.0 Leach Batch: N/A
 Analysis Date: 04/03/2017 1435
 Prep Date: 04/02/2017 0723
 Leach Date: N/A

Instrument ID: CBNAMS12
 Lab File ID: L138726.D
 Initial Weight/Volume: 15.0159 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| 1,1'-Biphenyl | 58 | 57 | 64 - 108 | 1 | 30 | * | * |
| 1,2,4,5-Tetrachlorobenzene | 54 | 54 | 57 - 112 | 0 | 30 | * | * |
| 2,2'-oxybis[1-chloropropane] | 46 | 44 | 39 - 122 | 4 | 30 | J | J |
| 2,3,4,6-Tetrachlorophenol | 0 | 5 | 60 - 114 | NC | 30 | U* | J* |
| 2,4,5-Trichlorophenol | 19 | 16 | 60 - 106 | 17 | 30 | J* | J* |
| 2,4,6-Trichlorophenol | 15 | 13 | 62 - 110 | 13 | 30 | J* | J* |
| 2,4-Dichlorophenol | 28 | 28 | 61 - 103 | 3 | 30 | * | * |
| 2,4-Dimethylphenol | 52 | 51 | 63 - 101 | 2 | 30 | * | * |
| 2,4-Dinitrophenol | 0 | 0 | 56 - 122 | NC | 30 | U* | U* |
| 2,4-Dinitrotoluene | 53 | 50 | 66 - 122 | 4 | 30 | * | * |
| 2,6-Dinitrotoluene | 51 | 50 | 70 - 114 | 1 | 30 | * | * |
| 2-Chloronaphthalene | 53 | 52 | 63 - 107 | 1 | 30 | * | * |
| 2-Chlorophenol | 34 | 32 | 62 - 97 | 7 | 30 | J* | J* |
| 2-Methylnaphthalene | 54 | 56 | 65 - 104 | 3 | 30 | * | * |
| 2-Methylphenol | 52 | 50 | 61 - 103 | 3 | 30 | * | * |
| 2-Nitroaniline | 59 | 58 | 57 - 114 | 3 | 30 | | |
| 2-Nitrophenol | 9 | 7 | 65 - 104 | 15 | 30 | J* | J* |
| 3,3'-Dichlorobenzidine | 57 | 62 | 18 - 88 | 7 | 30 | | |
| 3-Nitroaniline | 58 | 51 | 30 - 94 | 13 | 30 | | |
| 4,6-Dinitro-2-methylphenol | 0 | 0 | 67 - 120 | NC | 30 | U* | U* |
| 4-Bromophenyl phenyl ether | 52 | 54 | 59 - 122 | 4 | 30 | * | * |
| 4-Chloro-3-methylphenol | 55 | 52 | 62 - 111 | 5 | 30 | * | * |
| 4-Chloroaniline | 43 | 40 | 18 - 94 | 8 | 30 | J | J |
| 4-Chlorophenyl phenyl ether | 58 | 58 | 66 - 110 | 0 | 30 | * | * |
| 4-Methylphenol | 46 | 42 | 61 - 105 | 7 | 30 | J* | J* |
| 4-Nitroaniline | 42 | 46 | 49 - 118 | 8 | 30 | J* | J* |
| 4-Nitrophenol | 13 | 0 | 43 - 141 | NC | 30 | J* | U* |
| Acenaphthene | 55 | 66 | 62 - 108 | 16 | 30 | * | |
| Acenaphthylene | 59 | 65 | 67 - 107 | 9 | 30 | * | * |
| Acetophenone | 51 | 49 | 60 - 109 | 4 | 30 | * | * |
| Anthracene | 92 | 114 | 69 - 111 | 17 | 30 | | * |
| Atrazine | 66 | 69 | 62 - 137 | 5 | 30 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427681**

**Method: 8270D
Preparation: 3546**

MS Lab Sample ID: 460-130644-E-14-A MS Analysis Batch: 460-427760
 Client Matrix: Solid Prep Batch: 460-427681
 Dilution: 5.0 Leach Batch: N/A
 Analysis Date: 04/03/2017 1414
 Prep Date: 04/02/2017 0723
 Leach Date: N/A

Instrument ID: CBNAMS12
 Lab File ID: L138725.D
 Initial Weight/Volume: 15.0234 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

MSD Lab Sample ID: 460-130644-E-14-B MSD Analysis Batch: 460-427760
 Client Matrix: Solid Prep Batch: 460-427681
 Dilution: 5.0 Leach Batch: N/A
 Analysis Date: 04/03/2017 1435
 Prep Date: 04/02/2017 0723
 Leach Date: N/A

Instrument ID: CBNAMS12
 Lab File ID: L138726.D
 Initial Weight/Volume: 15.0159 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|-----------------------------|--------|-----|----------|-----|-----------|---------|----------|
| | MS | MSD | | | | | |
| Benzaldehyde | 33 | 29 | 52 - 113 | 13 | 30 | * | * |
| Benzo[a]anthracene | 75 | 128 | 68 - 110 | 24 | 30 | | * |
| Benzo[a]pyrene | 65 | 117 | 72 - 115 | 27 | 30 | * | * |
| Benzo[b]fluoranthene | 64 | 132 | 69 - 119 | 30 | 30 | * | * |
| Benzo[g,h,i]perylene | 40 | 71 | 54 - 128 | 30 | 30 | * | |
| Benzo[k]fluoranthene | 64 | 81 | 70 - 115 | 13 | 30 | * | |
| Bis(2-chloroethoxy)methane | 57 | 54 | 65 - 106 | 4 | 30 | * | * |
| Bis(2-chloroethyl)ether | 50 | 49 | 64 - 105 | 3 | 30 | * | * |
| Bis(2-ethylhexyl) phthalate | 63 | 61 | 63 - 125 | 4 | 30 | | * |
| Butyl benzyl phthalate | 58 | 55 | 65 - 125 | 5 | 30 | * | * |
| Caprolactam | 55 | 50 | 53 - 148 | 10 | 30 | | * |
| Carbazole | 61 | 72 | 66 - 115 | 15 | 30 | * | |
| Chrysene | 82 | 141 | 70 - 111 | 26 | 30 | | * |
| Dibenz(a,h)anthracene | 43 | 59 | 60 - 130 | 24 | 30 | * | * |
| Dibenzofuran | 63 | 74 | 67 - 107 | 15 | 30 | * | |
| Diethyl phthalate | 69 | 69 | 66 - 117 | 0 | 30 | | |
| Dimethyl phthalate | 64 | 64 | 68 - 112 | 1 | 30 | * | * |
| Di-n-butyl phthalate | 66 | 69 | 67 - 119 | 5 | 30 | * | |
| Di-n-octyl phthalate | 56 | 51 | 57 - 138 | 9 | 30 | * | * |
| Fluoranthene | 137 | 301 | 64 - 114 | 38 | 30 | * | * |
| Fluorene | 64 | 71 | 66 - 110 | 10 | 30 | * | |
| Hexachlorobenzene | 50 | 52 | 57 - 128 | 3 | 30 | * | * |
| Hexachlorobutadiene | 55 | 50 | 60 - 108 | 9 | 30 | * | * |
| Hexachlorocyclopentadiene | 0 | 0 | 50 - 129 | NC | 30 | U * | U * |
| Hexachloroethane | 39 | 39 | 63 - 99 | 0 | 30 | * | * |
| Indeno[1,2,3-cd]pyrene | 57 | 93 | 53 - 137 | 28 | 30 | | |
| Isophorone | 72 | 68 | 68 - 111 | 6 | 30 | | |
| Naphthalene | 51 | 50 | 65 - 102 | 1 | 30 | * | * |
| Nitrobenzene | 58 | 54 | 66 - 108 | 8 | 30 | * | * |
| N-Nitrosodi-n-propylamine | 64 | 63 | 63 - 117 | 3 | 30 | | |
| N-Nitrosodiphenylamine | 58 | 59 | 65 - 114 | 2 | 30 | * | * |
| Pentachlorophenol | 0 | 10 | 56 - 116 | NC | 30 | U * | J * |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427681**

**Method: 8270D
Preparation: 3546**

| | | |
|--|----------------------------|----------------------------------|
| MS Lab Sample ID: 460-130644-E-14-A MS | Analysis Batch: 460-427760 | Instrument ID: CBNAMS12 |
| Client Matrix: Solid | Prep Batch: 460-427681 | Lab File ID: L138725.D |
| Dilution: 5.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0234 g |
| Analysis Date: 04/03/2017 1414 | | Final Weight/Volume: 1 mL |
| Prep Date: 04/02/2017 0723 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| | | |
|--|----------------------------|----------------------------------|
| MSD Lab Sample ID: 460-130644-E-14-B MSD | Analysis Batch: 460-427760 | Instrument ID: CBNAMS12 |
| Client Matrix: Solid | Prep Batch: 460-427681 | Lab File ID: L138726.D |
| Dilution: 5.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0159 g |
| Analysis Date: 04/03/2017 1435 | | Final Weight/Volume: 1 mL |
| Prep Date: 04/02/2017 0723 | | Injection Volume: 1 uL |
| Leach Date: N/A | | |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|-----------------------------|----------|-----|-----------|-----|-------------------|---------|----------|
| | MS | MSD | | | | | |
| Phenanthrene | 149 | 300 | 68 - 111 | 47 | 30 | * | * |
| Phenol | 51 | 49 | 58 - 103 | 4 | 30 | * | * |
| Pyrene | 84 | 173 | 64 - 121 | 29 | 30 | | * |
| Surrogate | MS % Rec | | MSD % Rec | | Acceptance Limits | | |
| 2,4,6-Tribromophenol (Surr) | 9 | * | 9 | * | 10 - 103 | | |
| 2-Fluorobiphenyl | 53 | | 54 | | 38 - 95 | | |
| 2-Fluorophenol (Surr) | 33 | | 31 | | 25 - 92 | | |
| Nitrobenzene-d5 (Surr) | 57 | | 57 | | 37 - 94 | | |
| Phenol-d5 (Surr) | 47 | | 46 | | 32 - 91 | | |
| Terphenyl-d14 (Surr) | 43 | | 43 | | 24 - 109 | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-427417

**Method: 8081B
Preparation: 3546**

Lab Sample ID: MB 460-427417/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/02/2017 1225
 Prep Date: 03/31/2017 1147
 Leach Date: N/A

Analysis Batch: 460-427686
 Prep Batch: 460-427417
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CPESTGC5
 Lab File ID: 5F008448.D
 Initial Weight/Volume: 15.0000 g
 Final Weight/Volume: 10 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|-----------------------|--------|------|------|-----|
| 4,4'-DDD | 6.7 | U | 0.88 | 6.7 |
| 4,4'-DDE | 6.7 | U | 0.97 | 6.7 |
| 4,4'-DDT | 6.7 | U | 0.69 | 6.7 |
| Aldrin | 6.7 | U | 0.81 | 6.7 |
| alpha-BHC | 2.0 | U | 0.61 | 2.0 |
| beta-BHC | 2.0 | U | 0.65 | 2.0 |
| Chlordane (technical) | 67 | U | 30 | 67 |
| delta-BHC | 2.0 | U | 0.73 | 2.0 |
| Dieldrin | 2.0 | U | 0.87 | 2.0 |
| Endosulfan I | 6.7 | U | 0.93 | 6.7 |
| Endosulfan II | 6.7 | U | 1.1 | 6.7 |
| Endosulfan sulfate | 6.7 | U | 0.78 | 6.7 |
| Endrin | 6.7 | U | 0.85 | 6.7 |
| Endrin aldehyde | 6.7 | U | 0.83 | 6.7 |
| Endrin ketone | 6.7 | U | 0.93 | 6.7 |
| gamma-BHC (Lindane) | 2.0 | U | 0.60 | 2.0 |
| Heptachlor | 6.7 | U | 0.86 | 6.7 |
| Heptachlor epoxide | 6.7 | U | 1.3 | 6.7 |
| Methoxychlor | 6.7 | U | 1.4 | 6.7 |
| Toxaphene | 67 | U | 20 | 67 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 132 | 50 - 150 |
| Tetrachloro-m-xylene | 105 | 47 - 150 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 130 | 50 - 150 |
| Tetrachloro-m-xylene | 103 | 47 - 150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample - Batch: 460-427417

Method: 8081B
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-427417/2-A | Analysis Batch: 460-427686 | Instrument ID: CPESTGC5 |
| Client Matrix: Solid | Prep Batch: 460-427417 | Lab File ID: 5F008449.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 04/02/2017 1238 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1147 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|--------|-------------------|------|
| 4,4'-DDD | 133 | 152 | 114 | 64 - 129 | |
| 4,4'-DDE | 133 | 148 | 111 | 65 - 129 | |
| 4,4'-DDT | 133 | 139 | 105 | 59 - 124 | |
| Aldrin | 133 | 134 | 101 | 66 - 127 | |
| alpha-BHC | 133 | 141 | 106 | 69 - 131 | |
| beta-BHC | 133 | 139 | 104 | 69 - 127 | |
| delta-BHC | 133 | 140 | 105 | 64 - 129 | |
| Dieldrin | 133 | 149 | 112 | 65 - 128 | |
| Endosulfan I | 133 | 147 | 110 | 66 - 126 | |
| Endosulfan II | 133 | 151 | 113 | 64 - 124 | |
| Endosulfan sulfate | 133 | 151 | 114 | 62 - 123 | |
| Endrin | 133 | 148 | 111 | 58 - 126 | |
| Endrin aldehyde | 133 | 150 | 112 | 69 - 131 | |
| Endrin ketone | 133 | 159 | 119 | 62 - 125 | |
| gamma-BHC (Lindane) | 133 | 137 | 103 | 67 - 126 | |
| Heptachlor | 133 | 133 | 100 | 63 - 125 | |
| Heptachlor epoxide | 133 | 139 | 104 | 64 - 125 | |
| Methoxychlor | 133 | 140 | 105 | 56 - 123 | |
| <hr/> | | | | | |
| Surrogate | | % Rec | | Acceptance Limits | |
| DCB Decachlorobiphenyl | | 136 | | 50 - 150 | |
| Tetrachloro-m-xylene | | 103 | | 47 - 150 | |

Lab Control Sample - Batch: 460-427417

Method: 8081B
Preparation: 3546

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-427417/2-A | Analysis Batch: 460-427686 | Instrument ID: CPESTGC5 |
| Client Matrix: Solid | Prep Batch: 460-427417 | Lab File ID: 5F008449.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 04/02/2017 1238 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1147 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|----------|------|
| 4,4'-DDD | 133 | 127 | 95 | 64 - 129 | |
| 4,4'-DDE | 133 | 123 | 92 | 65 - 129 | |
| 4,4'-DDT | 133 | 121 | 91 | 59 - 124 | |
| Aldrin | 133 | 132 | 99 | 66 - 127 | |
| alpha-BHC | 133 | 135 | 101 | 69 - 131 | |
| beta-BHC | 133 | 136 | 102 | 69 - 127 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample - Batch: 460-427417

**Method: 8081B
Preparation: 3546**

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| Lab Sample ID: LCS 460-427417/2-A | Analysis Batch: 460-427686 | Instrument ID: CPESTGC5 |
| Client Matrix: Solid | Prep Batch: 460-427417 | Lab File ID: 5F008449.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0000 g |
| Analysis Date: 04/02/2017 1238 | Units: ug/Kg | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1147 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|--------|-------------------|------|
| delta-BHC | 133 | 138 | 104 | 64 - 129 | |
| Dieldrin | 133 | 130 | 98 | 65 - 128 | |
| Endosulfan I | 133 | 135 | 101 | 66 - 126 | |
| Endosulfan II | 133 | 132 | 99 | 64 - 124 | |
| Endosulfan sulfate | 133 | 140 | 105 | 62 - 123 | |
| Endrin | 133 | 128 | 96 | 58 - 126 | |
| Endrin aldehyde | 133 | 138 | 103 | 69 - 131 | |
| Endrin ketone | 133 | 140 | 105 | 62 - 125 | |
| gamma-BHC (Lindane) | 133 | 132 | 99 | 67 - 126 | |
| Heptachlor | 133 | 133 | 100 | 63 - 125 | |
| Heptachlor epoxide | 133 | 131 | 98 | 64 - 125 | |
| Methoxychlor | 133 | 123 | 92 | 56 - 123 | |
| <hr/> | | | | | |
| Surrogate | | % Rec | | Acceptance Limits | |
| DCB Decachlorobiphenyl | | 130 | | 50 - 150 | |
| Tetrachloro-m-xylene | | 99 | | 47 - 150 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427417**

**Method: 8081B
Preparation: 3546**

| | | |
|---------------------------------------|----------------------------|----------------------------------|
| MS Lab Sample ID: 460-130621-E-6-E MS | Analysis Batch: 460-427686 | Instrument ID: CPESTGC5 |
| Client Matrix: Solid | Prep Batch: 460-427417 | Lab File ID: 5F008450.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0256 g |
| Analysis Date: 04/02/2017 1250 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1147 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| | | |
|---|----------------------------|----------------------------------|
| MSD Lab Sample ID: 460-130621-E-6-F MSD | Analysis Batch: 460-427686 | Instrument ID: CPESTGC5 |
| Client Matrix: Solid | Prep Batch: 460-427417 | Lab File ID: 5F008451.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0245 g |
| Analysis Date: 04/02/2017 1303 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1147 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------|--------|----------|-----------|-----|-----------|-------------------|----------|
| | MS | MSD | | | | | |
| 4,4'-DDD | 121 | 114 | 64 - 129 | 6 | 30 | | |
| 4,4'-DDE | 123 | 113 | 65 - 129 | 8 | 30 | | |
| 4,4'-DDT | 108 | 103 | 59 - 124 | 6 | 30 | | |
| Aldrin | 109 | 102 | 66 - 127 | 7 | 30 | | |
| alpha-BHC | 109 | 102 | 69 - 131 | 7 | 30 | | |
| beta-BHC | 107 | 100 | 69 - 127 | 6 | 30 | | |
| delta-BHC | 99 | 96 | 64 - 129 | 3 | 30 | | |
| Dieldrin | 120 | 112 | 65 - 128 | 7 | 30 | | |
| Endosulfan I | 107 | 101 | 66 - 126 | 5 | 30 | | |
| Endosulfan II | 104 | 102 | 64 - 124 | 2 | 30 | | |
| Endosulfan sulfate | 105 | 104 | 62 - 123 | 1 | 30 | | |
| Endrin | 123 | 114 | 58 - 126 | 7 | 30 | | |
| Endrin aldehyde | 40 | 49 | 69 - 131 | 20 | 30 | * | * |
| Endrin ketone | 99 | 99 | 62 - 125 | 1 | 30 | | |
| gamma-BHC (Lindane) | 106 | 100 | 67 - 126 | 6 | 30 | | |
| Heptachlor | 108 | 101 | 63 - 125 | 6 | 30 | | |
| Heptachlor epoxide | 113 | 105 | 64 - 125 | 7 | 30 | | |
| Methoxychlor | 118 | 112 | 56 - 123 | 5 | 30 | | |
| Surrogate | | MS % Rec | MSD % Rec | | | Acceptance Limits | |
| DCB Decachlorobiphenyl | | 148 | 142 | | | 50 - 150 | |
| Tetrachloro-m-xylene | | 112 | 114 | | | 47 - 150 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427417**

**Method: 8081B
Preparation: 3546**

| | | |
|---------------------------------------|----------------------------|----------------------------------|
| MS Lab Sample ID: 460-130621-E-6-E MS | Analysis Batch: 460-427686 | Instrument ID: CPESTGC5 |
| Client Matrix: Solid | Prep Batch: 460-427417 | Lab File ID: 5F008450.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0256 g |
| Analysis Date: 04/02/2017 1250 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1147 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| | | |
|---|----------------------------|----------------------------------|
| MSD Lab Sample ID: 460-130621-E-6-F MSD | Analysis Batch: 460-427686 | Instrument ID: CPESTGC5 |
| Client Matrix: Solid | Prep Batch: 460-427417 | Lab File ID: 5F008451.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0245 g |
| Analysis Date: 04/02/2017 1303 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1147 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------|----------|-----|-----------|-------------------|-----------|---------|----------|
| | MS | MSD | | | | | |
| 4,4'-DDD | 101 | 84 | 64 - 129 | 18 | 30 | | |
| 4,4'-DDE | 101 | 86 | 65 - 129 | 16 | 30 | | |
| 4,4'-DDT | 103 | 85 | 59 - 124 | 19 | 30 | | |
| Aldrin | 104 | 86 | 66 - 127 | 19 | 30 | | |
| alpha-BHC | 102 | 87 | 69 - 131 | 16 | 30 | | |
| beta-BHC | 107 | 91 | 69 - 127 | 16 | 30 | | |
| delta-BHC | 99 | 85 | 64 - 129 | 15 | 30 | | |
| Dieldrin | 103 | 85 | 65 - 128 | 18 | 30 | | |
| Endosulfan I | 88 | 77 | 66 - 126 | 13 | 30 | | |
| Endosulfan II | 90 | 77 | 64 - 124 | 15 | 30 | | |
| Endosulfan sulfate | 99 | 83 | 62 - 123 | 18 | 30 | | |
| Endrin | 106 | 88 | 58 - 126 | 19 | 30 | | |
| Endrin aldehyde | 40 | 39 | 69 - 131 | 2 | 30 | * | * |
| Endrin ketone | 90 | 78 | 62 - 125 | 14 | 30 | | |
| gamma-BHC (Lindane) | 101 | 85 | 67 - 126 | 17 | 30 | | |
| Heptachlor | 106 | 89 | 63 - 125 | 17 | 30 | | |
| Heptachlor epoxide | 103 | 86 | 64 - 125 | 18 | 30 | | |
| Methoxychlor | 103 | 78 | 56 - 123 | 28 | 30 | | |
| Surrogate | MS % Rec | | MSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 121 | | 106 | 50 - 150 | | | |
| Tetrachloro-m-xylene | 102 | | 91 | 47 - 150 | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-427822

**Method: 8081B
Preparation: 3510C**

Lab Sample ID: MB 460-427822/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/03/2017 1008
 Prep Date: 04/03/2017 0830
 Leach Date: N/A

Analysis Batch: 460-427820
 Prep Batch: 460-427822
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CPESTGC5
 Lab File ID: 5F008474.D
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|-----------------------|--------|------|--------|-------|
| 4,4'-DDD | 0.020 | U | 0.0050 | 0.020 |
| 4,4'-DDE | 0.020 | U | 0.0040 | 0.020 |
| 4,4'-DDT | 0.020 | U | 0.0040 | 0.020 |
| Aldrin | 0.020 | U | 0.0040 | 0.020 |
| alpha-BHC | 0.020 | U | 0.0060 | 0.020 |
| beta-BHC | 0.020 | U | 0.0050 | 0.020 |
| Chlordane (technical) | 0.50 | U | 0.13 | 0.50 |
| delta-BHC | 0.020 | U | 0.0060 | 0.020 |
| Dieldrin | 0.020 | U | 0.0040 | 0.020 |
| Endosulfan I | 0.020 | U | 0.0050 | 0.020 |
| Endosulfan II | 0.020 | U | 0.0040 | 0.020 |
| Endosulfan sulfate | 0.020 | U | 0.0050 | 0.020 |
| Endrin | 0.020 | U | 0.0040 | 0.020 |
| Endrin aldehyde | 0.020 | U | 0.0040 | 0.020 |
| Endrin ketone | 0.020 | U | 0.0040 | 0.020 |
| gamma-BHC (Lindane) | 0.020 | U | 0.0040 | 0.020 |
| Heptachlor | 0.020 | U | 0.0040 | 0.020 |
| Heptachlor epoxide | 0.020 | U | 0.0040 | 0.020 |
| Methoxychlor | 0.020 | U | 0.0040 | 0.020 |
| Toxaphene | 0.50 | U | 0.060 | 0.50 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 116 | 10 - 150 |
| Tetrachloro-m-xylene | 100 | 16 - 150 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 109 | 10 - 150 |
| Tetrachloro-m-xylene | 96 | 16 - 150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-427822

Method: 8081B

Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-427822/2-A | Analysis Batch: 460-427820 | Instrument ID: CPESTGC5 |
| Client Matrix: Water | Prep Batch: 460-427822 | Lab File ID: 5F008475.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 04/03/2017 1021 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 04/03/2017 0830 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-427822/3-A | Analysis Batch: 460-427820 | Instrument ID: CPESTGC5 |
| Client Matrix: Water | Prep Batch: 460-427822 | Lab File ID: 5F008476.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 04/03/2017 1034 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 04/03/2017 0830 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------|-----------|------|------------|-------------------|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 4,4'-DDD | 121 | 129 | 66 - 150 | 6 | 30 | | E |
| 4,4'-DDE | 120 | 129 | 67 - 150 | 7 | 30 | | E |
| 4,4'-DDT | 106 | 114 | 62 - 150 | 7 | 30 | | |
| Aldrin | 110 | 118 | 48 - 144 | 7 | 30 | | |
| alpha-BHC | 117 | 127 | 68 - 150 | 8 | 30 | | |
| beta-BHC | 119 | 125 | 71 - 150 | 5 | 30 | | E |
| delta-BHC | 110 | 119 | 58 - 150 | 8 | 30 | | |
| Dieldrin | 125 | 134 | 68 - 150 | 7 | 30 | | E |
| Endosulfan I | 126 | 135 | 68 - 150 | 7 | 30 | | E |
| Endosulfan II | 122 | 131 | 66 - 150 | 7 | 30 | | E |
| Endosulfan sulfate | 125 | 133 | 64 - 150 | 6 | 30 | | E |
| Endrin | 121 | 130 | 61 - 150 | 7 | 30 | | E |
| Endrin aldehyde | 116 | 124 | 70 - 150 | 7 | 30 | | |
| Endrin ketone | 138 | 147 | 66 - 150 | 7 | 30 | | |
| gamma-BHC (Lindane) | 117 | 126 | 67 - 150 | 7 | 30 | | E |
| Heptachlor | 109 | 118 | 53 - 145 | 8 | 30 | | |
| Heptachlor epoxide | 119 | 129 | 66 - 150 | 8 | 30 | | E |
| Methoxychlor | 110 | 118 | 62 - 150 | 7 | 30 | | |
| Surrogate | LCS % Rec | | LCSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 117 | | 124 | 10 - 150 | | | |
| Tetrachloro-m-xylene | 99 | | 108 | 16 - 150 | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-427822

Method: 8081B

Preparation: 3510C

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| LCS Lab Sample ID: LCS 460-427822/2-A | Analysis Batch: 460-427820 | Instrument ID: CPESTGC5 |
| Client Matrix: Water | Prep Batch: 460-427822 | Lab File ID: 5F008475.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 04/03/2017 1021 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 04/03/2017 0830 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| | | |
|---|----------------------------|-------------------------------|
| LCSD Lab Sample ID: LCSD 460-427822/3-A | Analysis Batch: 460-427820 | Instrument ID: CPESTGC5 |
| Client Matrix: Water | Prep Batch: 460-427822 | Lab File ID: 5F008476.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 04/03/2017 1034 | Units: ug/L | Final Weight/Volume: 1 mL |
| Prep Date: 04/03/2017 0830 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | LCS Qual | LCSD Qual |
|------------------------|-----------|------------|-------------------|-----|-----------|----------|-----------|
| | LCS | LCSD | | | | | |
| 4,4'-DDD | 105 | 110 | 66 - 150 | 5 | 30 | | |
| 4,4'-DDE | 101 | 105 | 67 - 150 | 4 | 30 | | |
| 4,4'-DDT | 96 | 101 | 62 - 150 | 6 | 30 | | |
| Aldrin | 105 | 111 | 48 - 144 | 5 | 30 | | |
| alpha-BHC | 113 | 119 | 68 - 150 | 5 | 30 | | |
| beta-BHC | 116 | 122 | 71 - 150 | 5 | 30 | | |
| delta-BHC | 108 | 114 | 58 - 150 | 5 | 30 | | |
| Dieldrin | 110 | 115 | 68 - 150 | 4 | 30 | | |
| Endosulfan I | 114 | 119 | 68 - 150 | 4 | 30 | | |
| Endosulfan II | 111 | 118 | 66 - 150 | 6 | 30 | | |
| Endosulfan sulfate | 112 | 119 | 64 - 150 | 5 | 30 | | |
| Endrin | 106 | 111 | 61 - 150 | 5 | 30 | | |
| Endrin aldehyde | 109 | 115 | 70 - 150 | 5 | 30 | | |
| Endrin ketone | 117 | 124 | 66 - 150 | 6 | 30 | | |
| gamma-BHC (Lindane) | 112 | 118 | 67 - 150 | 5 | 30 | | |
| Heptachlor | 107 | 113 | 53 - 145 | 5 | 30 | | |
| Heptachlor epoxide | 111 | 116 | 66 - 150 | 5 | 30 | | |
| Methoxychlor | 97 | 101 | 62 - 150 | 4 | 30 | | |
| Surrogate | LCS % Rec | LCSD % Rec | Acceptance Limits | | | | |
| DCB Decachlorobiphenyl | 106 | 113 | 10 - 150 | | | | |
| Tetrachloro-m-xylene | 98 | 106 | 16 - 150 | | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-427415

**Method: 8082A
Preparation: 3546**

Lab Sample ID: MB 460-427415/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/02/2017 0830
 Prep Date: 03/31/2017 1143
 Leach Date: N/A

Analysis Batch: 460-427684
 Prep Batch: 460-427415
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: CPESTGC8
 Lab File ID: 8F018901.D
 Initial Weight/Volume: 15.0000 g
 Final Weight/Volume: 10 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|----------------------------------|--------|------|-----|----|
| Aroclor 1016 | 67 | U | 8.9 | 67 |
| Aroclor 1221 | 67 | U | 8.9 | 67 |
| Aroclor 1232 | 67 | U | 8.9 | 67 |
| Aroclor 1242 | 67 | U | 8.9 | 67 |
| Aroclor 1248 | 67 | U | 8.9 | 67 |
| Aroclor 1254 | 67 | U | 9.2 | 67 |
| Aroclor 1260 | 67 | U | 9.2 | 67 |
| Aroclor 1268 | 67 | U | 9.2 | 67 |
| Aroclor-1262 | 67 | U | 9.2 | 67 |
| Polychlorinated biphenyls, Total | 67 | U | 9.2 | 67 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 111 | 35 - 150 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 108 | 35 - 150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample - Batch: 460-427415

Method: 8082A
Preparation: 3546

| | | | | | |
|----------------|--------------------|-----------------|------------|------------------------|------------|
| Lab Sample ID: | LCS 460-427415/2-A | Analysis Batch: | 460-427684 | Instrument ID: | CPESTGC8 |
| Client Matrix: | Solid | Prep Batch: | 460-427415 | Lab File ID: | 8F018902.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 15.0000 g |
| Analysis Date: | 04/02/2017 0847 | Units: | ug/Kg | Final Weight/Volume: | 10 mL |
| Prep Date: | 03/31/2017 1143 | | | Injection Volume: | 1 uL |
| Leach Date: | N/A | | | Column ID: | PRIMARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|--------|-------------------|------|
| Aroclor 1016 | 333 | 371 | 111 | 77 - 150 | |
| Aroclor 1260 | 333 | 408 | 122 | 79 - 150 | |
| Surrogate | | % Rec | | Acceptance Limits | |
| DCB Decachlorobiphenyl | | 119 | | 35 - 150 | |

Lab Control Sample - Batch: 460-427415

Method: 8082A
Preparation: 3546

| | | | | | |
|----------------|--------------------|-----------------|------------|------------------------|------------|
| Lab Sample ID: | LCS 460-427415/2-A | Analysis Batch: | 460-427684 | Instrument ID: | CPESTGC8 |
| Client Matrix: | Solid | Prep Batch: | 460-427415 | Lab File ID: | 8F018902.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 15.0000 g |
| Analysis Date: | 04/02/2017 0847 | Units: | ug/Kg | Final Weight/Volume: | 10 mL |
| Prep Date: | 03/31/2017 1143 | | | Injection Volume: | 1 uL |
| Leach Date: | N/A | | | Column ID: | SECONDARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|--------|-------------------|------|
| Aroclor 1016 | 333 | 375 | 113 | 77 - 150 | |
| Aroclor 1260 | 333 | 365 | 109 | 79 - 150 | |
| Surrogate | | % Rec | | Acceptance Limits | |
| DCB Decachlorobiphenyl | | 118 | | 35 - 150 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427415**

**Method: 8082A
Preparation: 3546**

| | | |
|---------------------------------------|----------------------------|----------------------------------|
| MS Lab Sample ID: 460-130621-E-6-B MS | Analysis Batch: 460-427684 | Instrument ID: CPESTGC8 |
| Client Matrix: Solid | Prep Batch: 460-427415 | Lab File ID: 8F018905.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0256 g |
| Analysis Date: 04/02/2017 0940 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1143 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| | | |
|---|----------------------------|----------------------------------|
| MSD Lab Sample ID: 460-130621-E-6-C MSD | Analysis Batch: 460-427684 | Instrument ID: CPESTGC8 |
| Client Matrix: Solid | Prep Batch: 460-427415 | Lab File ID: 8F018906.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0245 g |
| Analysis Date: 04/02/2017 0957 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1143 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------|----------|-----|-----------|-------------------|-----------|---------|----------|
| | MS | MSD | | | | | |
| Aroclor 1016 | 121 | 114 | 77 - 150 | 6 | 30 | | |
| Aroclor 1260 | 124 | 120 | 79 - 150 | 4 | 30 | | |
| Surrogate | MS % Rec | | MSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 121 | | 115 | 35 - 150 | | | |

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427415**

**Method: 8082A
Preparation: 3546**

| | | |
|---------------------------------------|----------------------------|----------------------------------|
| MS Lab Sample ID: 460-130621-E-6-B MS | Analysis Batch: 460-427684 | Instrument ID: CPESTGC8 |
| Client Matrix: Solid | Prep Batch: 460-427415 | Lab File ID: 8F018905.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0256 g |
| Analysis Date: 04/02/2017 0940 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1143 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| | | |
|---|----------------------------|----------------------------------|
| MSD Lab Sample ID: 460-130621-E-6-C MSD | Analysis Batch: 460-427684 | Instrument ID: CPESTGC8 |
| Client Matrix: Solid | Prep Batch: 460-427415 | Lab File ID: 8F018906.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 15.0245 g |
| Analysis Date: 04/02/2017 0957 | | Final Weight/Volume: 10 mL |
| Prep Date: 03/31/2017 1143 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------|----------|-----|-----------|-------------------|-----------|---------|----------|
| | MS | MSD | | | | | |
| Aroclor 1016 | 106 | 108 | 77 - 150 | 2 | 30 | | |
| Aroclor 1260 | 114 | 111 | 79 - 150 | 3 | 30 | | |
| Surrogate | MS % Rec | | MSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 113 | | 115 | 35 - 150 | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-427824

**Method: 8082A
Preparation: 3510C**

Lab Sample ID: MB 460-427824/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/03/2017 1114
 Prep Date: 04/03/2017 0838
 Leach Date: N/A

Analysis Batch: 460-427837
 Prep Batch: 460-427824
 Leach Batch: N/A
 Units: ug/L

Instrument ID: CPESTGC11
 Lab File ID: T1341167.D
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

| Analyte | Result | Qual | MDL | RL |
|----------------------------------|--------|------|-------|------|
| Aroclor 1016 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1221 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1232 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1242 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1248 | 0.40 | U | 0.098 | 0.40 |
| Aroclor 1254 | 0.40 | U | 0.084 | 0.40 |
| Aroclor 1260 | 0.40 | U | 0.084 | 0.40 |
| Aroclor 1268 | 0.40 | U | 0.084 | 0.40 |
| Aroclor-1262 | 0.40 | U | 0.084 | 0.40 |
| Polychlorinated biphenyls, Total | 0.40 | U | 0.098 | 0.40 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 129 | 10 - 150 |

| Surrogate | % Rec | Acceptance Limits |
|------------------------|-------|-------------------|
| DCB Decachlorobiphenyl | 115 | 10 - 150 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample - Batch: 460-427824

Method: 8082A
Preparation: 3510C

| | | | | | |
|----------------|--------------------|-----------------|------------|------------------------|------------|
| Lab Sample ID: | LCS 460-427824/2-A | Analysis Batch: | 460-427837 | Instrument ID: | CPESTGC11 |
| Client Matrix: | Water | Prep Batch: | 460-427824 | Lab File ID: | T1341168.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 250 mL |
| Analysis Date: | 04/03/2017 1129 | Units: | ug/L | Final Weight/Volume: | 1 mL |
| Prep Date: | 04/03/2017 0838 | | | Injection Volume: | 1 uL |
| Leach Date: | N/A | | | Column ID: | PRIMARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|--------|-------------------|------|
| Aroclor 1016 | 4.00 | 4.63 | 116 | 77 - 150 | |
| Aroclor 1260 | 4.00 | 4.98 | 125 | 80 - 150 | |
| Surrogate | | % Rec | | Acceptance Limits | |
| DCB Decachlorobiphenyl | | 115 | | 10 - 150 | |

Lab Control Sample - Batch: 460-427824

Method: 8082A
Preparation: 3510C

| | | | | | |
|----------------|--------------------|-----------------|------------|------------------------|------------|
| Lab Sample ID: | LCS 460-427824/2-A | Analysis Batch: | 460-427837 | Instrument ID: | CPESTGC11 |
| Client Matrix: | Water | Prep Batch: | 460-427824 | Lab File ID: | T1341168.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 250 mL |
| Analysis Date: | 04/03/2017 1129 | Units: | ug/L | Final Weight/Volume: | 1 mL |
| Prep Date: | 04/03/2017 0838 | | | Injection Volume: | 1 uL |
| Leach Date: | N/A | | | Column ID: | SECONDARY |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|------------------------|--------------|--------|--------|-------------------|------|
| Aroclor 1016 | 4.00 | 4.63 | 116 | 77 - 150 | |
| Aroclor 1260 | 4.00 | 4.84 | 121 | 80 - 150 | |
| Surrogate | | % Rec | | Acceptance Limits | |
| DCB Decachlorobiphenyl | | 113 | | 10 - 150 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427824**

**Method: 8082A
Preparation: 3510C**

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| MS Lab Sample ID: 460-130719-D-2-A MS | Analysis Batch: 460-427837 | Instrument ID: CPESTGC11 |
| Client Matrix: Water | Prep Batch: 460-427824 | Lab File ID: T1341171.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 04/03/2017 1213 | | Final Weight/Volume: 1 mL |
| Prep Date: 04/03/2017 0838 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| | | |
|---|----------------------------|-------------------------------|
| MSD Lab Sample ID: 460-130719-D-2-B MSD | Analysis Batch: 460-427837 | Instrument ID: CPESTGC11 |
| Client Matrix: Water | Prep Batch: 460-427824 | Lab File ID: T1341172.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 245 mL |
| Analysis Date: 04/03/2017 1227 | | Final Weight/Volume: 1 mL |
| Prep Date: 04/03/2017 0838 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: PRIMARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------|----------|-----|-----------|-------------------|-----------|---------|----------|
| | MS | MSD | | | | | |
| Aroclor 1016 | 124 | 119 | 77 - 150 | 2 | 30 | | |
| Aroclor 1260 | 134 | 133 | 80 - 150 | 2 | 30 | | |
| Surrogate | MS % Rec | | MSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 118 | | 119 | 10 - 150 | | | |

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-427824**

**Method: 8082A
Preparation: 3510C**

| | | |
|---------------------------------------|----------------------------|-------------------------------|
| MS Lab Sample ID: 460-130719-D-2-A MS | Analysis Batch: 460-427837 | Instrument ID: CPESTGC11 |
| Client Matrix: Water | Prep Batch: 460-427824 | Lab File ID: T1341171.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 250 mL |
| Analysis Date: 04/03/2017 1213 | | Final Weight/Volume: 1 mL |
| Prep Date: 04/03/2017 0838 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| | | |
|---|----------------------------|-------------------------------|
| MSD Lab Sample ID: 460-130719-D-2-B MSD | Analysis Batch: 460-427837 | Instrument ID: CPESTGC11 |
| Client Matrix: Water | Prep Batch: 460-427824 | Lab File ID: T1341172.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 245 mL |
| Analysis Date: 04/03/2017 1227 | | Final Weight/Volume: 1 mL |
| Prep Date: 04/03/2017 0838 | | Injection Volume: 1 uL |
| Leach Date: N/A | | Column ID: SECONDARY |

| Analyte | % Rec. | | Limit | RPD | RPD Limit | MS Qual | MSD Qual |
|------------------------|----------|-----|-----------|-------------------|-----------|---------|----------|
| | MS | MSD | | | | | |
| Aroclor 1016 | 113 | 114 | 77 - 150 | 3 | 30 | | |
| Aroclor 1260 | 120 | 125 | 80 - 150 | 6 | 30 | | |
| Surrogate | MS % Rec | | MSD % Rec | Acceptance Limits | | | |
| DCB Decachlorobiphenyl | 107 | | 113 | 10 - 150 | | | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-427665

**Method: 6010C
Preparation: 3050B**

| | | | | | |
|----------------|----------------------|-----------------|------------|------------------------|--------------|
| Lab Sample ID: | MB 460-427665/1-A ^2 | Analysis Batch: | 460-427721 | Instrument ID: | ICP5 |
| Client Matrix: | Solid | Prep Batch: | 460-427665 | Lab File ID: | 427664D1.asc |
| Dilution: | 2.0 | Leach Batch: | N/A | Initial Weight/Volume: | 1.00 g |
| Analysis Date: | 04/02/2017 1342 | Units: | mg/Kg | Final Weight/Volume: | 50 mL |
| Prep Date: | 04/01/2017 1950 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|-----------|--------|------|------|------|
| Aluminum | 20.0 | U | 10.3 | 20.0 |
| Antimony | 2.0 | U | 0.79 | 2.0 |
| Arsenic | 1.5 | U | 0.49 | 1.5 |
| Barium | 20.0 | U | 0.72 | 20.0 |
| Beryllium | 0.20 | U | 0.17 | 0.20 |
| Cadmium | 0.40 | U | 0.21 | 0.40 |
| Calcium | 500 | U | 29.6 | 500 |
| Chromium | 1.0 | U | 0.48 | 1.0 |
| Cobalt | 5.0 | U | 0.58 | 5.0 |
| Copper | 2.5 | U | 0.65 | 2.5 |
| Iron | 15.0 | U | 11.3 | 15.0 |
| Lead | 1.0 | U | 0.39 | 1.0 |
| Magnesium | 500 | U | 25.0 | 500 |
| Manganese | 1.5 | U | 0.53 | 1.5 |
| Nickel | 4.0 | U | 0.73 | 4.0 |
| Potassium | 500 | U | 15.2 | 500 |
| Selenium | 2.0 | U | 0.69 | 2.0 |
| Silver | 1.0 | U | 0.18 | 1.0 |
| Sodium | 500 | U | 33.9 | 500 |
| Thallium | 2.0 | U | 0.89 | 2.0 |
| Vanadium | 5.0 | U | 0.50 | 5.0 |
| Zinc | 3.0 | U | 0.73 | 3.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

LCS-Certified Reference Material - Batch: 460-427665

**Method: 6010C
Preparation: 3050B**

| | | | | | |
|----------------|-----------------------------------|-----------------|------------|------------------------|--------------|
| Lab Sample ID: | LCSSRM 460-427665/2- A | Analysis Batch: | 460-427721 | Instrument ID: | ICP5 |
| Client Matrix: | Solid | Prep Batch: | 460-427665 | Lab File ID: | 427664D1.asc |
| Dilution: | 4.0 | Leach Batch: | N/A | Initial Weight/Volume: | 1.01 g |
| Analysis Date: | 04/02/2017 1346 | Units: | mg/Kg | Final Weight/Volume: | 50 mL |
| Prep Date: | 04/01/2017 1950 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|--------------|------|
| Aluminum | 8080 | 7554 | 93.5 | 49.4 - 151.0 | |
| Antimony | 88.2 | 42.38 | 48.0 | 2.2 - 197.3 | |
| Arsenic | 57.0 | 55.68 | 97.7 | 75.1 - 124.9 | |
| Barium | 110 | 114.0 | 103.6 | 82.4 - 118.2 | |
| Beryllium | 67.5 | 68.20 | 101.0 | 82.8 - 117.2 | |
| Cadmium | 77.8 | 79.60 | 102.3 | 82.8 - 117.2 | |
| Calcium | 6450 | 6386 | 99.0 | 82.2 - 117.7 | |
| Chromium | 65.0 | 66.40 | 102.1 | 79.1 - 121.1 | |
| Cobalt | 58.8 | 61.78 | 105.1 | 83.8 - 116.3 | |
| Copper | 56.4 | 55.41 | 98.2 | 80.5 - 119.7 | |
| Iron | 14700 | 14010 | 95.3 | 45.6 - 154.4 | |
| Lead | 85.6 | 88.32 | 103.2 | 82.0 - 118.0 | |
| Magnesium | 2710 | 2535 | 93.5 | 75.6 - 124.0 | |
| Manganese | 273 | 286.1 | 104.8 | 81.0 - 118.7 | |
| Nickel | 61.3 | 65.11 | 106.2 | 82.5 - 117.5 | |
| Potassium | 2420 | 2040 | 84.3 | 69.4 - 131.0 | |
| Selenium | 78.9 | 78.10 | 99.0 | 77.6 - 122.4 | |
| Silver | 54.2 | 52.36 | 96.6 | 74.7 - 125.3 | |
| Sodium | 914 | 832.5 | 91.1 | 71.6 - 128.0 | J |
| Thallium | 178 | 193.8 | 108.9 | 79.2 - 120.2 | |
| Vanadium | 56.3 | 55.49 | 98.6 | 77.1 - 122.9 | |
| Zinc | 198 | 202.0 | 102.0 | 82.3 - 117.2 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Matrix Spike - Batch: 460-427665

**Method: 6010C
Preparation: 3050B**

| | | | | | |
|----------------|------------------------|-----------------|------------|------------------------|--------------|
| Lab Sample ID: | 460-130644-D-12-D MS ^ | Analysis Batch: | 460-427721 | Instrument ID: | ICP5 |
| Client Matrix: | Solid | Prep Batch: | 460-427665 | Lab File ID: | 427664D1.asc |
| Dilution: | 4.0 | Leach Batch: | N/A | Initial Weight/Volume: | 1.28 g |
| Analysis Date: | 04/02/2017 1353 | Units: | mg/Kg | Final Weight/Volume: | 50 mL |
| Prep Date: | 04/01/2017 1950 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample | Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------|-------------|--------------|--------|--------|----------|------|
| Aluminum | 9340 | | 171 | 10340 | 586 | 75 - 125 | 4 |
| Antimony | 3.5 | U | 42.8 | 17.36 | 41 | 75 - 125 | N |
| Arsenic | 2.0 | J | 171 | 165.2 | 95 | 75 - 125 | |
| Barium | 57.2 | | 171 | 227.1 | 99 | 75 - 125 | |
| Beryllium | 0.30 | J | 4.28 | 4.40 | 96 | 75 - 125 | |
| Cadmium | 0.69 | U | 4.28 | 4.12 | 96 | 75 - 125 | |
| Chromium | 21.4 | | 17.1 | 37.76 | 96 | 75 - 125 | |
| Cobalt | 7.4 | J | 42.8 | 48.51 | 96 | 75 - 125 | |
| Copper | 40.2 | | 21.4 | 68.21 | 131 | 75 - 125 | N |
| Iron | 16000 | | 85.6 | 16980 | 1140 | 75 - 125 | 4 |
| Lead | 16.3 | | 42.8 | 73.43 | 133 | 75 - 125 | N |
| Magnesium | 6620 | | 1710 | 8485 | 109 | 75 - 125 | |
| Manganese | 289 | | 42.8 | 432.9 | 336 | 75 - 125 | 4 |
| Nickel | 16.8 | | 42.8 | 59.37 | 99 | 75 - 125 | |
| Potassium | 508 | J | 1710 | 2040 | 89 | 75 - 125 | |
| Selenium | 3.5 | U | 171 | 160.4 | 94 | 75 - 125 | |
| Silver | 1.7 | U | 4.28 | 4.04 | 94 | 75 - 125 | |
| Sodium | 354 | J | 1710 | 2087 | 101 | 75 - 125 | |
| Thallium | 3.5 | U | 171 | 165.6 | 97 | 75 - 125 | |
| Vanadium | 38.9 | | 42.8 | 83.16 | 103 | 75 - 125 | |
| Zinc | 41.0 | | 42.8 | 248.5 | 485 | 75 - 125 | N |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Duplicate - Batch: 460-427665

**Method: 6010C
Preparation: 3050B**

| | | | | | |
|----------------|------------------------|-----------------|------------|------------------------|--------------|
| Lab Sample ID: | 460-130644-D-12-C DU ^ | Analysis Batch: | 460-427721 | Instrument ID: | ICP5 |
| Client Matrix: | Solid | Prep Batch: | 460-427665 | Lab File ID: | 427664D1.asc |
| Dilution: | 4.0 | Leach Batch: | N/A | Initial Weight/Volume: | 1.24 g |
| Analysis Date: | 04/02/2017 1357 | Units: | mg/Kg | Final Weight/Volume: | 50 mL |
| Prep Date: | 04/01/2017 1950 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample | Result/Qual | Result | RPD | Limit | Qual |
|-----------|--------|-------------|--------|-----|-------|------|
| Aluminum | 9340 | | 8345 | 11 | 20 | |
| Antimony | 3.5 | U | 3.5 | NC | 20 | U |
| Arsenic | 2.0 | J | 1.83 | 8 | 20 | J |
| Barium | 57.2 | | 47.25 | 19 | 20 | |
| Beryllium | 0.30 | J | 0.35 | NC | 20 | U |
| Cadmium | 0.69 | U | 0.71 | NC | 20 | U |
| Calcium | 42800 | | 39630 | 8 | 20 | |
| Chromium | 21.4 | | 18.44 | 15 | 20 | |
| Cobalt | 7.4 | J | 6.92 | 7 | 20 | J |
| Copper | 40.2 | | 31.45 | 24 | 20 | * |
| Iron | 16000 | | 14240 | 12 | 20 | |
| Lead | 16.3 | | 18.28 | 11 | 20 | |
| Magnesium | 6620 | | 6491 | 2 | 20 | |
| Manganese | 289 | | 254.2 | 13 | 20 | |
| Nickel | 16.8 | | 16.31 | 3 | 20 | |
| Potassium | 508 | J | 479.4 | 6 | 20 | J |
| Selenium | 3.5 | U | 3.5 | NC | 20 | U |
| Silver | 1.7 | U | 1.8 | NC | 20 | U |
| Sodium | 354 | J | 342.6 | 3 | 20 | J |
| Thallium | 3.5 | U | 3.5 | NC | 20 | U |
| Vanadium | 38.9 | | 34.63 | 12 | 20 | |
| Zinc | 41.0 | | 37.92 | 8 | 20 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-427669

Method: 6020A Preparation: 3010A

| | | | | | |
|----------------|----------------------|-----------------|------------|------------------------|-----------|
| Lab Sample ID: | MB 460-427669/1-A ^2 | Analysis Batch: | 460-427907 | Instrument ID: | ICPMS3 |
| Client Matrix: | Water | Prep Batch: | 460-427669 | Lab File ID: | 126SMPL.d |
| Dilution: | 2.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 04/03/2017 1726 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 04/02/2017 0030 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Result | Qual | MDL | RL |
|-----------|--------|------|------|------|
| Aluminum | 40.0 | U | 18.2 | 40.0 |
| Antimony | 2.0 | U | 0.62 | 2.0 |
| Arsenic | 2.0 | U | 0.64 | 2.0 |
| Barium | 4.0 | U | 1.2 | 4.0 |
| Beryllium | 0.80 | U | 0.24 | 0.80 |
| Cadmium | 2.0 | U | 0.71 | 2.0 |
| Calcium | 200 | U | 60.5 | 200 |
| Chromium | 4.0 | U | 1.3 | 4.0 |
| Cobalt | 4.0 | U | 1.3 | 4.0 |
| Copper | 4.0 | U | 1.4 | 4.0 |
| Iron | 120 | U | 42.4 | 120 |
| Lead | 1.2 | U | 0.38 | 1.2 |
| Magnesium | 200 | U | 63.6 | 200 |
| Manganese | 8.0 | U | 2.5 | 8.0 |
| Nickel | 4.0 | U | 1.4 | 4.0 |
| Potassium | 200 | U | 91.4 | 200 |
| Selenium | 10.0 | U | 0.73 | 10.0 |
| Silver | 2.0 | U | 1.3 | 2.0 |
| Sodium | 200 | U | 69.0 | 200 |
| Thallium | 0.80 | U | 0.26 | 0.80 |
| Vanadium | 4.0 | U | 1.9 | 4.0 |
| Zinc | 16.0 | U | 7.0 | 16.0 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample - Batch: 460-427669

**Method: 6020A
Preparation: 3010A**

| | | | | | |
|----------------|-----------------------|-----------------|------------|------------------------|-----------|
| Lab Sample ID: | LCS 460-427669/2-A ^2 | Analysis Batch: | 460-427907 | Instrument ID: | ICPMS3 |
| Client Matrix: | Water | Prep Batch: | 460-427669 | Lab File ID: | 127SMPL.d |
| Dilution: | 2.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 04/03/2017 1729 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 04/02/2017 0030 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|----------|------|
| Aluminum | 2500 | 2466 | 99 | 80 - 120 | |
| Antimony | 25.0 | 25.40 | 102 | 80 - 120 | |
| Arsenic | 50.0 | 48.80 | 98 | 80 - 120 | |
| Barium | 50.0 | 50.01 | 100 | 80 - 120 | |
| Beryllium | 25.0 | 23.85 | 95 | 80 - 120 | |
| Cadmium | 25.0 | 25.14 | 101 | 80 - 120 | |
| Calcium | 2500 | 2549 | 102 | 80 - 120 | |
| Chromium | 50.0 | 51.01 | 102 | 80 - 120 | |
| Cobalt | 25.0 | 25.60 | 102 | 80 - 120 | |
| Copper | 50.0 | 51.77 | 104 | 80 - 120 | |
| Iron | 2500 | 2543 | 102 | 80 - 120 | |
| Lead | 25.0 | 25.06 | 100 | 80 - 120 | |
| Magnesium | 2500 | 2546 | 102 | 80 - 120 | |
| Manganese | 250 | 256.8 | 103 | 80 - 120 | |
| Nickel | 50.0 | 50.84 | 102 | 80 - 120 | |
| Potassium | 2500 | 2540 | 102 | 80 - 120 | |
| Selenium | 50.0 | 48.55 | 97 | 80 - 120 | |
| Silver | 25.0 | 26.64 | 107 | 80 - 120 | |
| Sodium | 2500 | 2610 | 104 | 80 - 120 | |
| Thallium | 20.0 | 19.69 | 98 | 80 - 120 | |
| Vanadium | 50.0 | 50.79 | 102 | 80 - 120 | |
| Zinc | 250 | 249.7 | 100 | 80 - 120 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Matrix Spike - Batch: 460-427669

**Method: 6020A
Preparation: 3010A**

| | | |
|---------------------------------------|----------------------------|------------------------------|
| Lab Sample ID: 460-130693-E-3-C MS ^2 | Analysis Batch: 460-427907 | Instrument ID: ICPMS3 |
| Client Matrix: Water | Prep Batch: 460-427669 | Lab File ID: 129SMPL.d |
| Dilution: 2.0 | Leach Batch: N/A | Initial Weight/Volume: 50 mL |
| Analysis Date: 04/03/2017 1733 | Units: ug/L | Final Weight/Volume: 50 mL |
| Prep Date: 04/02/2017 0030 | | |
| Leach Date: N/A | | |

| Analyte | Sample | Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------|-------------|--------------|--------|--------|----------|------|
| Aluminum | 40.4 | | 2500 | 2488 | 98 | 75 - 125 | |
| Antimony | 2.0 | U | 25.0 | 26.46 | 106 | 75 - 125 | |
| Arsenic | 2.0 | U | 50.0 | 45.27 | 91 | 75 - 125 | |
| Barium | 48.8 | | 50.0 | 100.2 | 103 | 75 - 125 | |
| Beryllium | 0.80 | U | 25.0 | 24.47 | 98 | 75 - 125 | |
| Cadmium | 2.0 | U | 25.0 | 25.52 | 102 | 75 - 125 | |
| Calcium | 31500 | | 2500 | 33710 | 87 | 75 - 125 | 4 |
| Chromium | 4.0 | U | 50.0 | 51.14 | 102 | 75 - 125 | |
| Cobalt | 4.0 | U | 25.0 | 26.42 | 106 | 75 - 125 | |
| Copper | 4.0 | U | 50.0 | 52.67 | 105 | 75 - 125 | |
| Iron | 118 | J | 2500 | 2626 | 100 | 75 - 125 | |
| Lead | 1.2 | U | 25.0 | 25.67 | 103 | 75 - 125 | |
| Magnesium | 4070 | | 2500 | 6532 | 98 | 75 - 125 | |
| Manganese | 47.4 | | 250 | 304.7 | 103 | 75 - 125 | |
| Nickel | 1.8 | J | 50.0 | 52.83 | 102 | 75 - 125 | |
| Potassium | 9810 | | 2500 | 12110 | 92 | 75 - 125 | |
| Selenium | 10.0 | U | 50.0 | 46.54 | 93 | 75 - 125 | |
| Silver | 2.0 | U | 25.0 | 26.75 | 107 | 75 - 125 | |
| Sodium | 32500 | | 2500 | 34520 | 80 | 75 - 125 | 4 |
| Thallium | 0.80 | U | 20.0 | 20.25 | 101 | 75 - 125 | |
| Vanadium | 4.0 | U | 50.0 | 51.10 | 102 | 75 - 125 | |
| Zinc | 16.0 | U | 250 | 253.4 | 101 | 75 - 125 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Duplicate - Batch: 460-427669

**Method: 6020A
Preparation: 3010A**

| | | | | | |
|----------------|------------------------|-----------------|------------|------------------------|-----------|
| Lab Sample ID: | 460-130693-E-3-B DU ^2 | Analysis Batch: | 460-427907 | Instrument ID: | ICPMS3 |
| Client Matrix: | Water | Prep Batch: | 460-427669 | Lab File ID: | 130SMPL.d |
| Dilution: | 2.0 | Leach Batch: | N/A | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 04/03/2017 1736 | Units: | ug/L | Final Weight/Volume: | 50 mL |
| Prep Date: | 04/02/2017 0030 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|-----------|--------------------|--------|-----|-------|------|
| Aluminum | 40.4 | 37.62 | 7 | 20 | J |
| Antimony | 2.0 U | 2.0 | NC | 20 | U |
| Arsenic | 2.0 U | 2.0 | NC | 20 | U |
| Barium | 48.8 | 48.83 | 0 | 20 | |
| Beryllium | 0.80 U | 0.80 | NC | 20 | U |
| Cadmium | 2.0 U | 2.0 | NC | 20 | U |
| Calcium | 31500 | 31480 | 0.2 | 20 | |
| Chromium | 4.0 U | 4.0 | NC | 20 | U |
| Cobalt | 4.0 U | 4.0 | NC | 20 | U |
| Copper | 4.0 U | 4.0 | NC | 20 | U |
| Iron | 118 J | 115.6 | 2 | 20 | J |
| Lead | 1.2 U | 1.2 | NC | 20 | U |
| Magnesium | 4070 | 4070 | 0 | 20 | |
| Manganese | 47.4 | 47.96 | 1 | 20 | |
| Nickel | 1.8 J | 1.85 | 1 | 20 | J |
| Potassium | 9810 | 9755 | 0.5 | 20 | |
| Selenium | 10.0 U | 10.0 | NC | 20 | U |
| Silver | 2.0 U | 2.0 | NC | 20 | U |
| Sodium | 32500 | 32210 | 0.9 | 20 | |
| Thallium | 0.80 U | 0.80 | NC | 20 | U |
| Vanadium | 4.0 U | 4.0 | NC | 20 | U |
| Zinc | 16.0 U | 16.0 | NC | 20 | U |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-428255

**Method: 6020A
Preparation: 3010A**

Lab Sample ID: MB 460-428255/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/05/2017 0232
 Prep Date: 04/05/2017 0047
 Leach Date: N/A

Analysis Batch: 460-428349
 Prep Batch: 460-428255
 Leach Batch: N/A
 Units: ug/L

Instrument ID: ICPMS3
 Lab File ID: 182SMPL.d
 Initial Weight/Volume: 10 mL
 Final Weight/Volume: 10 mL

| Analyte | Result | Qual | MDL | RL |
|-----------|--------|------|------|------|
| Aluminum | 20.0 | U | 9.1 | 20.0 |
| Antimony | 1.0 | U | 0.31 | 1.0 |
| Arsenic | 1.0 | U | 0.32 | 1.0 |
| Barium | 2.0 | U | 0.61 | 2.0 |
| Beryllium | 0.40 | U | 0.12 | 0.40 |
| Cadmium | 1.0 | U | 0.36 | 1.0 |
| Calcium | 100 | U | 30.3 | 100 |
| Chromium | 2.0 | U | 0.66 | 2.0 |
| Cobalt | 2.0 | U | 0.65 | 2.0 |
| Copper | 2.0 | U | 0.68 | 2.0 |
| Iron | 60.0 | U | 21.2 | 60.0 |
| Lead | 0.60 | U | 0.19 | 0.60 |
| Magnesium | 100 | U | 31.8 | 100 |
| Manganese | 4.0 | U | 1.2 | 4.0 |
| Nickel | 2.0 | U | 0.68 | 2.0 |
| Potassium | 100 | U | 45.7 | 100 |
| Selenium | 5.0 | U | 0.37 | 5.0 |
| Silver | 1.0 | U | 0.64 | 1.0 |
| Thallium | 0.40 | U | 0.13 | 0.40 |
| Vanadium | 2.0 | U | 0.95 | 2.0 |
| Zinc | 8.0 | U | 3.5 | 8.0 |

Method Blank - Batch: 460-428255

**Method: 6020A
Preparation: 3010A**

Lab Sample ID: MB 460-428255/1-A ^2
 Client Matrix: Water
 Dilution: 2.0
 Analysis Date: 04/05/2017 1609
 Prep Date: 04/05/2017 0047
 Leach Date: N/A

Analysis Batch: 460-428431
 Prep Batch: 460-428255
 Leach Batch: N/A
 Units: ug/L

Instrument ID: ICPMS2
 Lab File ID: 0276CCB.D
 Initial Weight/Volume: 10 mL
 Final Weight/Volume: 10 mL

| Analyte | Result | Qual | MDL | RL |
|---------|--------|------|------|-----|
| Sodium | 200 | U | 69.0 | 200 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Lab Control Sample - Batch: 460-428255

Method: 6020A
Preparation: 3010A

| | | |
|-----------------------------------|----------------------------|------------------------------|
| Lab Sample ID: LCS 460-428255/2-A | Analysis Batch: 460-428349 | Instrument ID: ICPMS3 |
| Client Matrix: Water | Prep Batch: 460-428255 | Lab File ID: 183SMPL.d |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 10 mL |
| Analysis Date: 04/05/2017 0234 | Units: ug/L | Final Weight/Volume: 10 mL |
| Prep Date: 04/05/2017 0047 | | |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|----------|------|
| Aluminum | 500 | 484.0 | 97 | 80 - 120 | |
| Antimony | 5.00 | 4.98 | 100 | 80 - 120 | |
| Arsenic | 10.0 | 9.70 | 97 | 80 - 120 | |
| Barium | 10.0 | 9.87 | 99 | 80 - 120 | |
| Beryllium | 5.00 | 5.22 | 104 | 80 - 120 | |
| Cadmium | 5.00 | 4.83 | 97 | 80 - 120 | |
| Calcium | 500 | 508.4 | 102 | 80 - 120 | |
| Chromium | 10.0 | 9.83 | 98 | 80 - 120 | |
| Cobalt | 5.00 | 4.88 | 98 | 80 - 120 | |
| Copper | 10.0 | 9.80 | 98 | 80 - 120 | |
| Iron | 500 | 479.1 | 96 | 80 - 120 | |
| Lead | 5.00 | 4.85 | 97 | 80 - 120 | |
| Magnesium | 500 | 493.2 | 99 | 80 - 120 | |
| Manganese | 50.0 | 49.93 | 100 | 80 - 120 | |
| Nickel | 10.0 | 9.91 | 99 | 80 - 120 | |
| Potassium | 500 | 508.8 | 102 | 80 - 120 | |
| Selenium | 10.0 | 9.62 | 96 | 80 - 120 | |
| Silver | 5.00 | 5.23 | 105 | 80 - 120 | |
| Thallium | 4.00 | 3.86 | 97 | 80 - 120 | |
| Vanadium | 10.0 | 9.68 | 97 | 80 - 120 | |
| Zinc | 50.0 | 47.91 | 96 | 80 - 120 | |

Lab Control Sample - Batch: 460-428255

Method: 6020A
Preparation: 3010A

| | | |
|--------------------------------------|----------------------------|------------------------------|
| Lab Sample ID: LCS 460-428255/2-A ^2 | Analysis Batch: 460-428431 | Instrument ID: ICPMS2 |
| Client Matrix: Water | Prep Batch: 460-428255 | Lab File ID: 028SMPL.D |
| Dilution: 2.0 | Leach Batch: N/A | Initial Weight/Volume: 10 mL |
| Analysis Date: 04/05/2017 1612 | Units: ug/L | Final Weight/Volume: 10 mL |
| Prep Date: 04/05/2017 0047 | | |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|----------|------|
| Sodium | 1000 | 917.2 | 92 | 80 - 120 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Matrix Spike - Batch: 460-428255

**Method: 6020A
Preparation: 3010A
Dissolved**

| | | |
|---------------------------------------|----------------------------|------------------------------|
| Lab Sample ID: 460-130507-E-10-D MS ^ | Analysis Batch: 460-428349 | Instrument ID: ICPMS3 |
| Client Matrix: Water | Prep Batch: 460-428255 | Lab File ID: 184SMPL.d |
| Dilution: 2.0 | Leach Batch: N/A | Initial Weight/Volume: 10 mL |
| Analysis Date: 04/05/2017 0236 | Units: ug/L | Final Weight/Volume: 10 mL |
| Prep Date: 04/05/2017 0047 | | |
| Leach Date: N/A | | |

| Analyte | Sample Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------------|--------------|--------|--------|----------|------|
| Aluminum | 40.0 U | 1000 | 1001 | 100 | 75 - 125 | |
| Antimony | 2.0 U | 10.0 | 9.07 | 91 | 75 - 125 | |
| Arsenic | 2.0 U | 20.0 | 20.78 | 104 | 75 - 125 | |
| Barium | 434 | 20.0 | 455.2 | 107 | 75 - 125 | 4 |
| Beryllium | 0.80 U | 10.0 | 10.08 | 101 | 75 - 125 | |
| Cadmium | 2.0 U | 10.0 | 10.12 | 101 | 75 - 125 | |
| Calcium | 28800 | 1000 | 29690 | 93 | 75 - 125 | 4 |
| Chromium | 4.0 U | 20.0 | 20.07 | 100 | 75 - 125 | |
| Cobalt | 4.0 U | 10.0 | 10.0 | 100 | 75 - 125 | |
| Copper | 4.0 U | 20.0 | 19.38 | 97 | 75 - 125 | |
| Iron | 35600 | 1000 | 36380 | 81 | 75 - 125 | 4 |
| Lead | 1.2 U | 10.0 | 10.10 | 101 | 75 - 125 | |
| Magnesium | 16200 | 1000 | 17170 | 96 | 75 - 125 | 4 |
| Manganese | 261 | 100 | 362.6 | 101 | 75 - 125 | |
| Nickel | 4.0 U | 20.0 | 19.75 | 99 | 75 - 125 | |
| Potassium | 2210 | 1000 | 3257 | 104 | 75 - 125 | |
| Selenium | 10.0 U | 20.0 | 21.59 | 108 | 75 - 125 | |
| Silver | 2.0 U | 10.0 | 9.65 | 97 | 75 - 125 | |
| Thallium | 0.80 U | 8.00 | 8.12 | 101 | 75 - 125 | |
| Vanadium | 4.0 U | 20.0 | 19.88 | 99 | 75 - 125 | |
| Zinc | 228 | 100 | 324.9 | 97 | 75 - 125 | |

Matrix Spike - Batch: 460-428255

**Method: 6020A
Preparation: 3010A
Dissolved**

| | | |
|---------------------------------------|----------------------------|------------------------------|
| Lab Sample ID: 460-130507-E-10-D MS ^ | Analysis Batch: 460-428431 | Instrument ID: ICPMS2 |
| Client Matrix: Water | Prep Batch: 460-428255 | Lab File ID: 029SMPL.D |
| Dilution: 2.0 | Leach Batch: N/A | Initial Weight/Volume: 10 mL |
| Analysis Date: 04/05/2017 1615 | Units: ug/L | Final Weight/Volume: 10 mL |
| Prep Date: 04/05/2017 0047 | | |
| Leach Date: N/A | | |

| Analyte | Sample Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------------|--------------|--------|--------|----------|------|
| Sodium | 89800 | 1000 | 86530 | -329 | 75 - 125 | 4 |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Duplicate - Batch: 460-428255

**Method: 6020A
Preparation: 3010A
Dissolved**

| | | |
|---------------------------------------|----------------------------|------------------------------|
| Lab Sample ID: 460-130507-B-10-E DU ^ | Analysis Batch: 460-428349 | Instrument ID: ICPMS3 |
| Client Matrix: Water | Prep Batch: 460-428255 | Lab File ID: 185SMPL.d |
| Dilution: 2.0 | Leach Batch: N/A | Initial Weight/Volume: 10 mL |
| Analysis Date: 04/05/2017 0239 | Units: ug/L | Final Weight/Volume: 10 mL |
| Prep Date: 04/05/2017 0047 | | |
| Leach Date: N/A | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|-----------|--------------------|--------|-----|-------|------|
| Aluminum | 40.0 U | 40.0 | NC | 20 | U |
| Antimony | 2.0 U | 2.0 | NC | 20 | U |
| Arsenic | 2.0 U | 2.0 | NC | 20 | U |
| Barium | 434 | 435.9 | 0.5 | 20 | |
| Beryllium | 0.80 U | 0.80 | NC | 20 | U |
| Cadmium | 2.0 U | 2.0 | NC | 20 | U |
| Calcium | 28800 | 29040 | 1 | 20 | |
| Chromium | 4.0 U | 4.0 | NC | 20 | U |
| Cobalt | 4.0 U | 4.0 | NC | 20 | U |
| Copper | 4.0 U | 4.0 | NC | 20 | U |
| Iron | 35600 | 35600 | 0.1 | 20 | |
| Lead | 1.2 U | 1.2 | NC | 20 | U |
| Magnesium | 16200 | 16230 | 0.1 | 20 | |
| Manganese | 261 | 262.6 | 0.4 | 20 | |
| Nickel | 4.0 U | 4.0 | NC | 20 | U |
| Potassium | 2210 | 2236 | 1 | 20 | |
| Selenium | 10.0 U | 10.0 | NC | 20 | U |
| Silver | 2.0 U | 2.0 | NC | 20 | U |
| Thallium | 0.80 U | 0.80 | NC | 20 | U |
| Vanadium | 4.0 U | 4.0 | NC | 20 | U |
| Zinc | 228 | 230.0 | 0.8 | 20 | |

Duplicate - Batch: 460-428255

**Method: 6020A
Preparation: 3010A
Dissolved**

| | | |
|---------------------------------------|----------------------------|------------------------------|
| Lab Sample ID: 460-130507-B-10-E DU ^ | Analysis Batch: 460-428431 | Instrument ID: ICPMS2 |
| Client Matrix: Water | Prep Batch: 460-428255 | Lab File ID: 030SMPL.D |
| Dilution: 2.0 | Leach Batch: N/A | Initial Weight/Volume: 10 mL |
| Analysis Date: 04/05/2017 1619 | Units: ug/L | Final Weight/Volume: 10 mL |
| Prep Date: 04/05/2017 0047 | | |
| Leach Date: N/A | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---------|--------------------|--------|-----|-------|------|
| Sodium | 89800 | 86780 | 3 | 20 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-427431

Lab Sample ID: MB 460-427428/1-B
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/31/2017 1610
 Prep Date: 03/31/2017 1252
 Leach Date: N/A

Analysis Batch: 460-427489
 Prep Batch: 460-427431
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A
 Dissolved**

Instrument ID: LEEMAN6
 Lab File ID: 427426hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Result | Qual | MDL | RL |
|---------|--------|------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

Lab Control Sample - Batch: 460-427431

Lab Sample ID: LCS 460-427431/3-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/31/2017 1612
 Prep Date: 03/31/2017 1252
 Leach Date: N/A

Analysis Batch: 460-427489
 Prep Batch: 460-427431
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A**

Instrument ID: LEEMAN6
 Lab File ID: 427426hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|----------|------|
| Mercury | 1.00 | 0.848 | 85 | 80 - 120 | |

Matrix Spike - Batch: 460-427431

Lab Sample ID: 460-130507-E-10-B MS
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/31/2017 1635
 Prep Date: 03/31/2017 1252
 Leach Date: N/A

Analysis Batch: 460-427489
 Prep Batch: 460-427431
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A
 Dissolved**

Instrument ID: LEEMAN6
 Lab File ID: 427426hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Sample Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------------|--------------|--------|--------|----------|------|
| Mercury | 0.20 U | 1.00 | 0.835 | 84 | 80 - 120 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Duplicate - Batch: 460-427431

Method: 7470A
Preparation: 7470A
Dissolved

| | | | | | |
|----------------|----------------------|-----------------|------------|------------------------|---------------|
| Lab Sample ID: | 460-130507-B-10-A DU | Analysis Batch: | 460-427489 | Instrument ID: | LEEMAN6 |
| Client Matrix: | Water | Prep Batch: | 460-427431 | Lab File ID: | 427426hg1.CSV |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 30 mL |
| Analysis Date: | 03/31/2017 1633 | Units: | ug/L | Final Weight/Volume: | 30 mL |
| Prep Date: | 03/31/2017 1252 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---------|--------------------|--------|-----|-------|------|
| Mercury | 0.20 U | 0.20 | NC | 20 | U |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-427871

Lab Sample ID: MB 460-427871/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/03/2017 1615
 Prep Date: 04/03/2017 1228
 Leach Date: N/A

Analysis Batch: 460-427923
 Prep Batch: 460-427871
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A**

Instrument ID: LEEMAN6
 Lab File ID: 427868hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Result | Qual | MDL | RL |
|---------|--------|------|------|------|
| Mercury | 0.20 | U | 0.17 | 0.20 |

Lab Control Sample - Batch: 460-427871

Lab Sample ID: LCS 460-427871/2-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/03/2017 1617
 Prep Date: 04/03/2017 1228
 Leach Date: N/A

Analysis Batch: 460-427923
 Prep Batch: 460-427871
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A**

Instrument ID: LEEMAN6
 Lab File ID: 427868hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|----------|------|
| Mercury | 1.00 | 0.936 | 94 | 80 - 120 | |

Matrix Spike - Batch: 460-427871

Lab Sample ID: 460-130728-G-1-C MS
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/03/2017 1623
 Prep Date: 04/03/2017 1228
 Leach Date: N/A

Analysis Batch: 460-427923
 Prep Batch: 460-427871
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A**

Instrument ID: LEEMAN6
 Lab File ID: 427868hg1.CSV
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

| Analyte | Sample Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------------|--------------|--------|--------|----------|------|
| Mercury | 0.20 U | 1.00 | 0.972 | 97 | 80 - 120 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Duplicate - Batch: 460-427871

Method: 7470A
Preparation: 7470A

Lab Sample ID: 460-130728-G-1-B DU
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/03/2017 1621
Prep Date: 04/03/2017 1228
Leach Date: N/A

Analysis Batch: 460-427923
Prep Batch: 460-427871
Leach Batch: N/A
Units: ug/L

Instrument ID: LEEMAN6
Lab File ID: 427868hg1.CSV
Initial Weight/Volume: 30 mL
Final Weight/Volume: 30 mL

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---------|--------------------|--------|-----|-------|------|
| Mercury | 0.20 U | 0.20 | NC | 20 | U |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Method Blank - Batch: 460-427784

Lab Sample ID: MB 460-427784/10-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/03/2017 0807
 Prep Date: 04/03/2017 0411
 Leach Date: N/A

Analysis Batch: 460-427860
 Prep Batch: 460-427784
 Leach Batch: N/A
 Units: mg/Kg

**Method: 7471B
 Preparation: 7471B**

Instrument ID: LEEMAN5
 Lab File ID: 427784HG1.PRN
 Initial Weight/Volume: 0.60 g
 Final Weight/Volume: 50 mL

| Analyte | Result | Qual | MDL | RL |
|---------|--------|------|-------|-------|
| Mercury | 0.017 | U | 0.011 | 0.017 |

LCS-Certified Reference Material - Batch: 460-427784

Lab Sample ID: LCSSRM 460-427784/11-
 Client Matrix: Solid
 Dilution: 20
 Analysis Date: 04/03/2017 0808
 Prep Date: 04/03/2017 0411
 Leach Date: N/A

Analysis Batch: 460-427860
 Prep Batch: 460-427784
 Leach Batch: N/A
 Units: mg/Kg

**Method: 7471B
 Preparation: 7471B**

Instrument ID: LEEMAN5
 Lab File ID: 427784HG1.PRN
 Initial Weight/Volume: 0.60 g
 Final Weight/Volume: 50 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|--------------|------|
| Mercury | 12.3 | 12.30 | 100.0 | 64.1 - 135.8 | |

Matrix Spike - Batch: 460-427784

Lab Sample ID: 460-130740-E-10-D MS
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/03/2017 0814
 Prep Date: 04/03/2017 0411
 Leach Date: N/A

Analysis Batch: 460-427860
 Prep Batch: 460-427784
 Leach Batch: N/A
 Units: mg/Kg

**Method: 7471B
 Preparation: 7471B**

Instrument ID: LEEMAN5
 Lab File ID: 427784HG1.PRN
 Initial Weight/Volume: 0.65 g
 Final Weight/Volume: 50 mL

| Analyte | Sample Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------------|--------------|--------|--------|----------|------|
| Mercury | 0.017 U | 0.0854 | 0.0940 | 110 | 75 - 125 | |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Duplicate - Batch: 460-427784

Method: 7471B
Preparation: 7471B

| | | | | | |
|----------------|----------------------|-----------------|------------|------------------------|---------------|
| Lab Sample ID: | 460-130740-E-10-C DU | Analysis Batch: | 460-427860 | Instrument ID: | LEEMAN5 |
| Client Matrix: | Solid | Prep Batch: | 460-427784 | Lab File ID: | 427784HG1.PRN |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 0.65 g |
| Analysis Date: | 04/03/2017 0812 | Units: | mg/Kg | Final Weight/Volume: | 50 mL |
| Prep Date: | 04/03/2017 0411 | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---------|--------------------|--------|-----|-------|------|
| Mercury | 0.017 U | 0.017 | NC | 20 | U |

Quality Control Results

Client: AKRF Inc

Job Number: 460-130646-1

Duplicate - Batch: 460-428117

**Method: Moisture
Preparation: N/A**

| | | | | | |
|----------------|-------------------|-----------------|------------|------------------------|-----------------------|
| Lab Sample ID: | 460-130650-A-9 DU | Analysis Batch: | 460-428117 | Instrument ID: | No Equipment Assigned |
| Client Matrix: | Solid | Prep Batch: | N/A | Lab File ID: | N/A |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | |
| Analysis Date: | 04/04/2017 1215 | Units: | % | Final Weight/Volume: | |
| Prep Date: | N/A | | | | |
| Leach Date: | N/A | | | | |

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|------------------|--------------------|--------|-----|-------|------|
| Percent Moisture | 21.6 | 18.0 | 19 | 20 | |
| Percent Solids | 78.4 | 82.0 | 5 | 20 | |

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Page 1 of 1

| | | | | | |
|---|--------------|--|-----------|--|--------------|
| Name (for report and invoice) Enze Park | | Samplers Name (Printed) Matthew Levy | | Site/Project Identification ARXNH | |
| Company ARMF 440 Park Ave S | | P.O. # | | State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/> | |
| Address G | | Analysis Turnaround Time Standard <input checked="" type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input type="checkbox"/> | | Regulatory Program: | |
| City NY | | State NY | | LAB USE ONLY Project No: | |
| Phone 631 943 4263 | | Fax 631 943 4263 | | Job No: 130040 | |
| Sample Identification | | Date | Time | Matrix | No. of Cont. |
| SB-7 (1-2) - 170330 | 08/30 | 0800 | S | 5 | 1 |
| SB-7 (1&5-19.5) - 170330 | | 0815 | S | 5 | -2 |
| GW-7 - 170330 | | 0902 | GW | 11 | -3 |
| SB-10 (2-3) - 170330 | | 105 | S | 5 | -4 |
| SB-9 (2-3) - 170330 | | 1050 | S | 5 | -5 |
| SHORT HOLD | | | | | |
| Preservation Used: <input checked="" type="checkbox"/> ICB, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH | | | | | |
| Soil: _____ Water: _____ | | | | | |

Special Instructions

CAT A

Water Metals Filtered (Yes/No)?

| | | | | |
|--|------------------------|-------------------------------------|-----------------------------------|---------------------|
| Relinquished by Matthew Levy | Company ARMF | Date / Time 3/30/17 5:15 | Received by [Signature] | Company A |
| Relinquished by [Signature] | Company A | Date / Time 3/30/17 12:15 | Received by [Signature] | Company A |
| Relinquished by | Company | Date / Time | Received by | Company |
| Relinquished by | Company | Date / Time | Received by | Company |

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-02200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

2.4 / 2.4 + 0.8 WBC

TAL - 0016 (0715)

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-130646-1

Login Number: 130646

List Source: TestAmerica Edison

List Number: 1

Creator: Lysy, Susan

| Question | Answer | Comment |
|--|--------|---|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | N/A | Not present |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 2.4°C IR#8 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | False | See NCM |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4"). | True | |
| Multiphasic samples are not present. | N/A | |
| Samples do not require splitting or compositing. | N/A | |
| Residual Chlorine Checked. | N/A | No analysis requiring residual chlorine check assigned. |

ANALYTICAL REPORT

Job Number: 200-38004-1

SDG Number: 200-38004-1

Job Description: American Museum of Natural History

For:
AKRF Inc
440 Park Avenue South
7th Floor
New York, NY 10016
Attention: Mr. Eric Park

Kristine Dusablon

Approved for release.
Kristine A Dusablon
Project Manager II
4/6/2017 1:27 PM

Kristine A Dusablon, Project Manager II
30 Community Drive, South Burlington, VT, 05403
(802)660-1990
kris.dusablon@testamericainc.com
04/06/2017

cc: Ms. Adrianna Bosco
Mr. Matthew Levy

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



CASE NARRATIVE

Client: AKRF Inc

Project: American Museum of Natural History

Report Number: 200-38004-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 03/30/2017; the samples arrived in good condition.

VOLATILE ORGANIC COMPOUNDS

Samples AA-170328, SV-2-170328, SV-4-170328 and SV-5-170328 were analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 04/04/2017.

Samples SV-2-170328[4X], SV-4-170328[6.06X] and SV-5-170328[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|----------------------------------|------------------|--------|-----------|--------------------|---------|--------|
| 200-38004-1 | AA-170328 | | | | | |
| Freon 22 | | 0.52 | | 0.50 | ppb v/v | TO-15 |
| Freon 22 | | 1.9 | | 1.8 | ug/m3 | TO-15 |
| n-Butane | | 1.3 | | 0.50 | ppb v/v | TO-15 |
| n-Butane | | 3.1 | | 1.2 | ug/m3 | TO-15 |
| Trichlorofluoromethane | | 0.21 | | 0.20 | ppb v/v | TO-15 |
| Trichlorofluoromethane | | 1.2 | | 1.1 | ug/m3 | TO-15 |
| Acetone | | 32 | | 5.0 | ppb v/v | TO-15 |
| Acetone | | 76 | | 12 | ug/m3 | TO-15 |
| n-Hexane | | 0.31 | | 0.20 | ppb v/v | TO-15 |
| n-Hexane | | 1.1 | | 0.70 | ug/m3 | TO-15 |
| Methyl Ethyl Ketone | | 5.4 | | 0.50 | ppb v/v | TO-15 |
| Methyl Ethyl Ketone | | 16 | | 1.5 | ug/m3 | TO-15 |
| Carbon tetrachloride | | 0.071 | | 0.040 | ppb v/v | TO-15 |
| Carbon tetrachloride | | 0.45 | | 0.25 | ug/m3 | TO-15 |
| Benzene | | 0.70 | | 0.20 | ppb v/v | TO-15 |
| Benzene | | 2.2 | | 0.64 | ug/m3 | TO-15 |
| Toluene | | 2.9 | | 0.20 | ppb v/v | TO-15 |
| Toluene | | 11 | | 0.75 | ug/m3 | TO-15 |
| Methyl Butyl Ketone (2-Hexanone) | | 0.70 | | 0.50 | ppb v/v | TO-15 |
| Methyl Butyl Ketone (2-Hexanone) | | 2.9 | | 2.0 | ug/m3 | TO-15 |
| Ethylbenzene | | 1.2 | | 0.20 | ppb v/v | TO-15 |
| Ethylbenzene | | 5.1 | | 0.87 | ug/m3 | TO-15 |
| m,p-Xylene | | 7.0 | | 0.50 | ppb v/v | TO-15 |
| m,p-Xylene | | 30 | | 2.2 | ug/m3 | TO-15 |
| Xylene, o- | | 2.2 | | 0.20 | ppb v/v | TO-15 |
| Xylene, o- | | 9.6 | | 0.87 | ug/m3 | TO-15 |
| Xylene (total) | | 9.2 | | 0.70 | ppb v/v | TO-15 |
| Xylene (total) | | 40 | | 3.0 | ug/m3 | TO-15 |
| n-Propylbenzene | | 0.93 | | 0.20 | ppb v/v | TO-15 |
| n-Propylbenzene | | 4.6 | | 0.98 | ug/m3 | TO-15 |
| 4-Ethyltoluene | | 1.8 | | 0.20 | ppb v/v | TO-15 |
| 4-Ethyltoluene | | 9.1 | | 0.98 | ug/m3 | TO-15 |
| 1,3,5-Trimethylbenzene | | 1.7 | | 0.20 | ppb v/v | TO-15 |
| 1,3,5-Trimethylbenzene | | 8.5 | | 0.98 | ug/m3 | TO-15 |
| 1,2,4-Trimethylbenzene | | 6.5 | | 0.20 | ppb v/v | TO-15 |
| 1,2,4-Trimethylbenzene | | 32 | | 0.98 | ug/m3 | TO-15 |
| n-Butylbenzene | | 0.56 | | 0.20 | ppb v/v | TO-15 |
| n-Butylbenzene | | 3.1 | | 1.1 | ug/m3 | TO-15 |
| Naphthalene | | 1.3 | | 0.50 | ppb v/v | TO-15 |
| Naphthalene | | 6.8 | | 2.6 | ug/m3 | TO-15 |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|--------------------|--------|-----------|--------------------|---------|--------|
| 200-38004-2 | SV-2-170328 | | | | | |
| n-Butane | | 140 | | 2.0 | ppb v/v | TO-15 |
| n-Butane | | 340 | | 4.8 | ug/m3 | TO-15 |
| 1,3-Butadiene | | 3.4 | | 0.80 | ppb v/v | TO-15 |
| 1,3-Butadiene | | 7.5 | | 1.8 | ug/m3 | TO-15 |
| Trichlorofluoromethane | | 12 | | 0.80 | ppb v/v | TO-15 |
| Trichlorofluoromethane | | 70 | | 4.5 | ug/m3 | TO-15 |
| Acetone | | 77 | | 20 | ppb v/v | TO-15 |
| Acetone | | 180 | | 48 | ug/m3 | TO-15 |
| Carbon disulfide | | 8.7 | | 2.0 | ppb v/v | TO-15 |
| Carbon disulfide | | 27 | | 6.2 | ug/m3 | TO-15 |
| n-Hexane | | 28 | | 0.80 | ppb v/v | TO-15 |
| n-Hexane | | 98 | | 2.8 | ug/m3 | TO-15 |
| Methyl Ethyl Ketone | | 7.9 | | 2.0 | ppb v/v | TO-15 |
| Methyl Ethyl Ketone | | 23 | | 5.9 | ug/m3 | TO-15 |
| Cyclohexane | | 4.5 | | 0.80 | ppb v/v | TO-15 |
| Cyclohexane | | 16 | | 2.8 | ug/m3 | TO-15 |
| 2,2,4-Trimethylpentane | | 5.0 | | 0.80 | ppb v/v | TO-15 |
| 2,2,4-Trimethylpentane | | 23 | | 3.7 | ug/m3 | TO-15 |
| Benzene | | 3.9 | | 0.80 | ppb v/v | TO-15 |
| Benzene | | 13 | | 2.6 | ug/m3 | TO-15 |
| n-Heptane | | 13 | | 0.80 | ppb v/v | TO-15 |
| n-Heptane | | 53 | | 3.3 | ug/m3 | TO-15 |
| Trichloroethene | | 0.19 | | 0.16 | ppb v/v | TO-15 |
| Trichloroethene | | 1.0 | | 0.86 | ug/m3 | TO-15 |
| Toluene | | 5.5 | | 0.80 | ppb v/v | TO-15 |
| Toluene | | 21 | | 3.0 | ug/m3 | TO-15 |
| Ethylbenzene | | 1.5 | | 0.80 | ppb v/v | TO-15 |
| Ethylbenzene | | 6.6 | | 3.5 | ug/m3 | TO-15 |
| m,p-Xylene | | 6.0 | | 2.0 | ppb v/v | TO-15 |
| m,p-Xylene | | 26 | | 8.7 | ug/m3 | TO-15 |
| Xylene, o- | | 2.2 | | 0.80 | ppb v/v | TO-15 |
| Xylene, o- | | 9.6 | | 3.5 | ug/m3 | TO-15 |
| Xylene (total) | | 8.2 | | 2.8 | ppb v/v | TO-15 |
| Xylene (total) | | 36 | | 12 | ug/m3 | TO-15 |
| 1,3,5-Trimethylbenzene | | 0.91 | | 0.80 | ppb v/v | TO-15 |
| 1,3,5-Trimethylbenzene | | 4.5 | | 3.9 | ug/m3 | TO-15 |
| 1,2,4-Trimethylbenzene | | 2.2 | | 0.80 | ppb v/v | TO-15 |
| 1,2,4-Trimethylbenzene | | 11 | | 3.9 | ug/m3 | TO-15 |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|--------------------|--------|-----------|--------------------|---------|--------|
| 200-38004-3 | SV-4-170328 | | | | | |
| Acetone | | 120 | | 30 | ppb v/v | TO-15 |
| Acetone | | 300 | | 72 | ug/m3 | TO-15 |
| Methyl Ethyl Ketone | | 6.6 | | 3.0 | ppb v/v | TO-15 |
| Methyl Ethyl Ketone | | 20 | | 8.9 | ug/m3 | TO-15 |
| Toluene | | 5.0 | | 1.2 | ppb v/v | TO-15 |
| Toluene | | 19 | | 4.6 | ug/m3 | TO-15 |
| Ethylbenzene | | 1.2 | | 1.2 | ppb v/v | TO-15 |
| Ethylbenzene | | 5.4 | | 5.3 | ug/m3 | TO-15 |
| m,p-Xylene | | 5.2 | | 3.0 | ppb v/v | TO-15 |
| m,p-Xylene | | 23 | | 13 | ug/m3 | TO-15 |
| Xylene, o- | | 1.8 | | 1.2 | ppb v/v | TO-15 |
| Xylene, o- | | 7.6 | | 5.3 | ug/m3 | TO-15 |
| Xylene (total) | | 7.0 | | 4.2 | ppb v/v | TO-15 |
| Xylene (total) | | 30 | | 18 | ug/m3 | TO-15 |
| 1,2,4-Trimethylbenzene | | 1.5 | | 1.2 | ppb v/v | TO-15 |
| 1,2,4-Trimethylbenzene | | 7.3 | | 6.0 | ug/m3 | TO-15 |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|--------------------|--------|-----------|--------------------|---------|--------|
| 200-38004-4 | SV-5-170328 | | | | | |
| n-Butane | | 56 | | 1.0 | ppb v/v | TO-15 |
| n-Butane | | 130 | | 2.4 | ug/m3 | TO-15 |
| 1,3-Butadiene | | 0.69 | | 0.40 | ppb v/v | TO-15 |
| 1,3-Butadiene | | 1.5 | | 0.88 | ug/m3 | TO-15 |
| Acetone | | 31 | | 10 | ppb v/v | TO-15 |
| Acetone | | 75 | | 24 | ug/m3 | TO-15 |
| Isopropyl alcohol | | 13 | | 10 | ppb v/v | TO-15 |
| Isopropyl alcohol | | 32 | | 25 | ug/m3 | TO-15 |
| Carbon disulfide | | 23 | | 1.0 | ppb v/v | TO-15 |
| Carbon disulfide | | 70 | | 3.1 | ug/m3 | TO-15 |
| n-Hexane | | 13 | | 0.40 | ppb v/v | TO-15 |
| n-Hexane | | 47 | | 1.4 | ug/m3 | TO-15 |
| Methyl Ethyl Ketone | | 12 | | 1.0 | ppb v/v | TO-15 |
| Methyl Ethyl Ketone | | 35 | | 2.9 | ug/m3 | TO-15 |
| Chloroform | | 0.49 | | 0.40 | ppb v/v | TO-15 |
| Chloroform | | 2.4 | | 2.0 | ug/m3 | TO-15 |
| Cyclohexane | | 4.6 | | 0.40 | ppb v/v | TO-15 |
| Cyclohexane | | 16 | | 1.4 | ug/m3 | TO-15 |
| Carbon tetrachloride | | 0.32 | | 0.080 | ppb v/v | TO-15 |
| Carbon tetrachloride | | 2.0 | | 0.50 | ug/m3 | TO-15 |
| 2,2,4-Trimethylpentane | | 7.0 | | 0.40 | ppb v/v | TO-15 |
| 2,2,4-Trimethylpentane | | 33 | | 1.9 | ug/m3 | TO-15 |
| Benzene | | 9.4 | | 0.40 | ppb v/v | TO-15 |
| Benzene | | 30 | | 1.3 | ug/m3 | TO-15 |
| n-Heptane | | 9.9 | | 0.40 | ppb v/v | TO-15 |
| n-Heptane | | 41 | | 1.6 | ug/m3 | TO-15 |
| Trichloroethene | | 0.75 | | 0.080 | ppb v/v | TO-15 |
| Trichloroethene | | 4.0 | | 0.43 | ug/m3 | TO-15 |
| Toluene | | 12 | | 0.40 | ppb v/v | TO-15 |
| Toluene | | 45 | | 1.5 | ug/m3 | TO-15 |
| Ethylbenzene | | 2.2 | | 0.40 | ppb v/v | TO-15 |
| Ethylbenzene | | 9.5 | | 1.7 | ug/m3 | TO-15 |
| m,p-Xylene | | 8.0 | | 1.0 | ppb v/v | TO-15 |
| m,p-Xylene | | 35 | | 4.3 | ug/m3 | TO-15 |
| Xylene, o- | | 2.9 | | 0.40 | ppb v/v | TO-15 |
| Xylene, o- | | 13 | | 1.7 | ug/m3 | TO-15 |
| Xylene (total) | | 11 | | 1.4 | ppb v/v | TO-15 |
| Xylene (total) | | 47 | | 6.1 | ug/m3 | TO-15 |
| n-Propylbenzene | | 0.44 | | 0.40 | ppb v/v | TO-15 |
| n-Propylbenzene | | 2.2 | | 2.0 | ug/m3 | TO-15 |
| 4-Ethyltoluene | | 0.68 | | 0.40 | ppb v/v | TO-15 |
| 4-Ethyltoluene | | 3.4 | | 2.0 | ug/m3 | TO-15 |
| 1,3,5-Trimethylbenzene | | 0.72 | | 0.40 | ppb v/v | TO-15 |
| 1,3,5-Trimethylbenzene | | 3.5 | | 2.0 | ug/m3 | TO-15 |
| 1,2,4-Trimethylbenzene | | 2.3 | | 0.40 | ppb v/v | TO-15 |
| 1,2,4-Trimethylbenzene | | 11 | | 2.0 | ug/m3 | TO-15 |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|------------------|--------|-----------|--------------------|---------|--------|
| 1,3-Dichlorobenzene | | 1.2 | | 0.40 | ppb v/v | TO-15 |
| 1,3-Dichlorobenzene | | 7.3 | | 2.4 | ug/m3 | TO-15 |

METHOD SUMMARY

Client: AKRF Inc

Job Number: 200-38004-1
Sdg Number: 200-38004-1

| Description | Lab Location | Method | Preparation Method |
|---|---------------------|---------------|---------------------------|
| Matrix: Air | | | |
| Volatile Organic Compounds in Ambient Air | TAL BUR | EPA TO-15 | |
| Collection via Summa Canister | TAL BUR | | Summa Canister |

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

| Method | Analyst | Analyst ID |
|---------------|-----------------------|-------------------|
| EPA TO-15 | Puangmalee, Kesanee 1 | K1P |

SAMPLE SUMMARY

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|----------------------|-------------------------|----------------------|------------------------------|-------------------------------|
| 200-38004-1 | AA-170328 | Air | 03/28/2017 1232 | 03/30/2017 1020 |
| 200-38004-2 | SV-2-170328 | Air | 03/28/2017 1253 | 03/30/2017 1020 |
| 200-38004-3 | SV-4-170328 | Air | 03/28/2017 1247 | 03/30/2017 1020 |
| 200-38004-4 | SV-5-170328 | Air | 03/28/2017 1305 | 03/30/2017 1020 |

SAMPLE RESULTS

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: AA-170328

Lab Sample ID: 200-38004-1

Date Sampled: 03/28/2017 1232

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115389 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24548_19.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 04/04/2017 0234 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 0234 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|-------------------------------|------------------|-----------|-------|
| Dichlorodifluoromethane | 0.50 | U | 0.50 |
| Freon 22 | 0.52 | | 0.50 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | U | 0.20 |
| Chloromethane | 0.50 | U | 0.50 |
| n-Butane | 1.3 | | 0.50 |
| Vinyl chloride | 0.040 | U | 0.040 |
| 1,3-Butadiene | 0.20 | U | 0.20 |
| Bromomethane | 0.20 | U | 0.20 |
| Chloroethane | 0.50 | U | 0.50 |
| Bromoethene(Vinyl Bromide) | 0.20 | U | 0.20 |
| Trichlorofluoromethane | 0.21 | | 0.20 |
| Freon TF | 0.20 | U | 0.20 |
| 1,1-Dichloroethene | 0.20 | U | 0.20 |
| Acetone | 32 | | 5.0 |
| Isopropyl alcohol | 5.0 | U | 5.0 |
| Carbon disulfide | 0.50 | U | 0.50 |
| 3-Chloropropene | 0.50 | U | 0.50 |
| Methylene Chloride | 0.50 | U | 0.50 |
| tert-Butyl alcohol | 5.0 | U | 5.0 |
| Methyl tert-butyl ether | 0.20 | U | 0.20 |
| trans-1,2-Dichloroethene | 0.20 | U | 0.20 |
| n-Hexane | 0.31 | | 0.20 |
| 1,1-Dichloroethane | 0.20 | U | 0.20 |
| Methyl Ethyl Ketone | 5.4 | | 0.50 |
| cis-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 1,2-Dichloroethene, Total | 0.40 | U | 0.40 |
| Chloroform | 0.20 | U | 0.20 |
| Tetrahydrofuran | 5.0 | U | 5.0 |
| 1,1,1-Trichloroethane | 0.20 | U | 0.20 |
| Cyclohexane | 0.20 | U | 0.20 |
| Carbon tetrachloride | 0.071 | | 0.040 |
| 2,2,4-Trimethylpentane | 0.20 | U | 0.20 |
| Benzene | 0.70 | | 0.20 |
| 1,2-Dichloroethane | 0.20 | U | 0.20 |
| n-Heptane | 0.20 | U | 0.20 |
| Trichloroethene | 0.040 | U | 0.040 |
| Methyl methacrylate | 0.50 | U | 0.50 |
| 1,2-Dichloropropane | 0.20 | U | 0.20 |
| 1,4-Dioxane | 5.0 | U | 5.0 |
| Bromodichloromethane | 0.20 | U | 0.20 |
| cis-1,3-Dichloropropene | 0.20 | U | 0.20 |
| methyl isobutyl ketone | 0.50 | U | 0.50 |
| Toluene | 2.9 | | 0.20 |
| trans-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 1,1,2-Trichloroethane | 0.20 | U | 0.20 |
| Tetrachloroethene | 0.20 | U | 0.20 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: AA-170328

Lab Sample ID: 200-38004-1

Date Sampled: 03/28/2017 1232

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115389 | Instrument ID: CHX.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24548_19.D |
| Dilution: 1.0 | | Initial Weight/Volume: 200 mL |
| Analysis Date: 04/04/2017 0234 | | Final Weight/Volume: 200 mL |
| Prep Date: 04/04/2017 0234 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|----------------------------------|------------------|-----------|------|
| Methyl Butyl Ketone (2-Hexanone) | 0.70 | | 0.50 |
| Dibromochloromethane | 0.20 | U | 0.20 |
| 1,2-Dibromoethane | 0.20 | U | 0.20 |
| Chlorobenzene | 0.20 | U | 0.20 |
| Ethylbenzene | 1.2 | | 0.20 |
| m,p-Xylene | 7.0 | | 0.50 |
| Xylene, o- | 2.2 | | 0.20 |
| Xylene (total) | 9.2 | | 0.70 |
| Styrene | 0.20 | U | 0.20 |
| Bromoform | 0.20 | U | 0.20 |
| Cumene | 0.20 | U | 0.20 |
| 1,1,2,2-Tetrachloroethane | 0.20 | U | 0.20 |
| n-Propylbenzene | 0.93 | | 0.20 |
| 4-Ethyltoluene | 1.8 | | 0.20 |
| 1,3,5-Trimethylbenzene | 1.7 | | 0.20 |
| 2-Chlorotoluene | 0.20 | U | 0.20 |
| tert-Butylbenzene | 0.20 | U | 0.20 |
| 1,2,4-Trimethylbenzene | 6.5 | | 0.20 |
| sec-Butylbenzene | 0.20 | U | 0.20 |
| 4-Isopropyltoluene | 0.20 | U | 0.20 |
| 1,3-Dichlorobenzene | 0.20 | U | 0.20 |
| 1,4-Dichlorobenzene | 0.20 | U | 0.20 |
| Benzyl chloride | 0.20 | U | 0.20 |
| n-Butylbenzene | 0.56 | | 0.20 |
| 1,2-Dichlorobenzene | 0.20 | U | 0.20 |
| 1,2,4-Trichlorobenzene | 0.50 | U | 0.50 |
| Hexachlorobutadiene | 0.20 | U | 0.20 |
| Naphthalene | 1.3 | | 0.50 |

| Analyte | Result (ug/m3) | Qualifier | RL |
|-------------------------------|----------------|-----------|------|
| Dichlorodifluoromethane | 2.5 | U | 2.5 |
| Freon 22 | 1.9 | | 1.8 |
| 1,2-Dichlorotetrafluoroethane | 1.4 | U | 1.4 |
| Chloromethane | 1.0 | U | 1.0 |
| n-Butane | 3.1 | | 1.2 |
| Vinyl chloride | 0.10 | U | 0.10 |
| 1,3-Butadiene | 0.44 | U | 0.44 |
| Bromomethane | 0.78 | U | 0.78 |
| Chloroethane | 1.3 | U | 1.3 |
| Bromoethene(Vinyl Bromide) | 0.87 | U | 0.87 |
| Trichlorofluoromethane | 1.2 | | 1.1 |
| Freon TF | 1.5 | U | 1.5 |
| 1,1-Dichloroethene | 0.79 | U | 0.79 |
| Acetone | 76 | | 12 |
| Isopropyl alcohol | 12 | U | 12 |
| Carbon disulfide | 1.6 | U | 1.6 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: AA-170328

Lab Sample ID: 200-38004-1

Date Sampled: 03/28/2017 1232

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115389 | Instrument ID: CHX.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24548_19.D |
| Dilution: 1.0 | | Initial Weight/Volume: 200 mL |
| Analysis Date: 04/04/2017 0234 | | Final Weight/Volume: 200 mL |
| Prep Date: 04/04/2017 0234 | | Injection Volume: 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|----------------------------------|----------------|-----------|------|
| 3-Chloropropene | 1.6 | U | 1.6 |
| Methylene Chloride | 1.7 | U | 1.7 |
| tert-Butyl alcohol | 15 | U | 15 |
| Methyl tert-butyl ether | 0.72 | U | 0.72 |
| trans-1,2-Dichloroethene | 0.79 | U | 0.79 |
| n-Hexane | 1.1 | | 0.70 |
| 1,1-Dichloroethane | 0.81 | U | 0.81 |
| Methyl Ethyl Ketone | 16 | | 1.5 |
| cis-1,2-Dichloroethene | 0.79 | U | 0.79 |
| 1,2-Dichloroethene, Total | 1.6 | U | 1.6 |
| Chloroform | 0.98 | U | 0.98 |
| Tetrahydrofuran | 15 | U | 15 |
| 1,1,1-Trichloroethane | 1.1 | U | 1.1 |
| Cyclohexane | 0.69 | U | 0.69 |
| Carbon tetrachloride | 0.45 | | 0.25 |
| 2,2,4-Trimethylpentane | 0.93 | U | 0.93 |
| Benzene | 2.2 | | 0.64 |
| 1,2-Dichloroethane | 0.81 | U | 0.81 |
| n-Heptane | 0.82 | U | 0.82 |
| Trichloroethene | 0.21 | U | 0.21 |
| Methyl methacrylate | 2.0 | U | 2.0 |
| 1,2-Dichloropropane | 0.92 | U | 0.92 |
| 1,4-Dioxane | 18 | U | 18 |
| Bromodichloromethane | 1.3 | U | 1.3 |
| cis-1,3-Dichloropropene | 0.91 | U | 0.91 |
| methyl isobutyl ketone | 2.0 | U | 2.0 |
| Toluene | 11 | | 0.75 |
| trans-1,3-Dichloropropene | 0.91 | U | 0.91 |
| 1,1,2-Trichloroethane | 1.1 | U | 1.1 |
| Tetrachloroethene | 1.4 | U | 1.4 |
| Methyl Butyl Ketone (2-Hexanone) | 2.9 | | 2.0 |
| Dibromochloromethane | 1.7 | U | 1.7 |
| 1,2-Dibromoethane | 1.5 | U | 1.5 |
| Chlorobenzene | 0.92 | U | 0.92 |
| Ethylbenzene | 5.1 | | 0.87 |
| m,p-Xylene | 30 | | 2.2 |
| Xylene, o- | 9.6 | | 0.87 |
| Xylene (total) | 40 | | 3.0 |
| Styrene | 0.85 | U | 0.85 |
| Bromoform | 2.1 | U | 2.1 |
| Cumene | 0.98 | U | 0.98 |
| 1,1,2,2-Tetrachloroethane | 1.4 | U | 1.4 |
| n-Propylbenzene | 4.6 | | 0.98 |
| 4-Ethyltoluene | 9.1 | | 0.98 |
| 1,3,5-Trimethylbenzene | 8.5 | | 0.98 |
| 2-Chlorotoluene | 1.0 | U | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: AA-170328

Lab Sample ID: 200-38004-1

Date Sampled: 03/28/2017 1232

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115389 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24548_19.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 04/04/2017 0234 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 0234 | | | Injection Volume: | 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|------------------------|----------------|-----------|------|
| tert-Butylbenzene | 1.1 | U | 1.1 |
| 1,2,4-Trimethylbenzene | 32 | | 0.98 |
| sec-Butylbenzene | 1.1 | U | 1.1 |
| 4-Isopropyltoluene | 1.1 | U | 1.1 |
| 1,3-Dichlorobenzene | 1.2 | U | 1.2 |
| 1,4-Dichlorobenzene | 1.2 | U | 1.2 |
| Benzyl chloride | 1.0 | U | 1.0 |
| n-Butylbenzene | 3.1 | | 1.1 |
| 1,2-Dichlorobenzene | 1.2 | U | 1.2 |
| 1,2,4-Trichlorobenzene | 3.7 | U | 3.7 |
| Hexachlorobutadiene | 2.1 | U | 2.1 |
| Naphthalene | 6.8 | | 2.6 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: AA-170328

Lab Sample ID: 200-38004-1

Date Sampled: 03/28/2017 1232

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115389 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24548_19.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 04/04/2017 0234 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 0234 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 10

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|--------------------------------|-------|-----------------------|-----------|
| | Unknown | 4.05 | 1.9 | J |
| | Unknown | 5.76 | 2.0 | J |
| | Unknown | 9.57 | 2.6 | J |
| 611-14-3 | Benzene, 1-ethyl-2-methyl- | 21.80 | 2.3 | J N |
| 620-14-4 | Benzene, 1-ethyl-3-methyl- | 22.26 | 2.2 | J N |
| 141-93-5 | Benzene, 1,3-diethyl- | 23.42 | 1.1 | J N |
| | Unknown | 23.46 | 1.6 | J |
| 1074-17-5 | Benzene, 1-methyl-2-propyl- | 23.83 | 1.0 | J N |
| 933-98-2 | Benzene, 1-ethyl-2,3-dimethyl- | 23.96 | 1.2 | J N |
| 874-41-9 | Benzene, 1-ethyl-2,4-dimethyl- | 24.12 | 1.9 | J N |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: SV-2-170328

Lab Sample ID: 200-38004-2

Date Sampled: 03/28/2017 1253

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115389 | Instrument ID: CHX.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24548_20.D |
| Dilution: 4.0 | | Initial Weight/Volume: 50 mL |
| Analysis Date: 04/04/2017 0324 | | Final Weight/Volume: 200 mL |
| Prep Date: 04/04/2017 0324 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|-------------------------------|------------------|-----------|------|
| Dichlorodifluoromethane | 2.0 | U | 2.0 |
| Freon 22 | 2.0 | U | 2.0 |
| 1,2-Dichlorotetrafluoroethane | 0.80 | U | 0.80 |
| Chloromethane | 2.0 | U | 2.0 |
| n-Butane | 140 | | 2.0 |
| Vinyl chloride | 0.16 | U | 0.16 |
| 1,3-Butadiene | 3.4 | | 0.80 |
| Bromomethane | 0.80 | U | 0.80 |
| Chloroethane | 2.0 | U | 2.0 |
| Bromoethene(Vinyl Bromide) | 0.80 | U | 0.80 |
| Trichlorofluoromethane | 12 | | 0.80 |
| Freon TF | 0.80 | U | 0.80 |
| 1,1-Dichloroethene | 0.80 | U | 0.80 |
| Acetone | 77 | | 20 |
| Isopropyl alcohol | 20 | U | 20 |
| Carbon disulfide | 8.7 | | 2.0 |
| 3-Chloropropene | 2.0 | U | 2.0 |
| Methylene Chloride | 2.0 | U | 2.0 |
| tert-Butyl alcohol | 20 | U | 20 |
| Methyl tert-butyl ether | 0.80 | U | 0.80 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 |
| n-Hexane | 28 | | 0.80 |
| 1,1-Dichloroethane | 0.80 | U | 0.80 |
| Methyl Ethyl Ketone | 7.9 | | 2.0 |
| cis-1,2-Dichloroethene | 0.80 | U | 0.80 |
| 1,2-Dichloroethene, Total | 1.6 | U | 1.6 |
| Chloroform | 0.80 | U | 0.80 |
| Tetrahydrofuran | 20 | U | 20 |
| 1,1,1-Trichloroethane | 0.80 | U | 0.80 |
| Cyclohexane | 4.5 | | 0.80 |
| Carbon tetrachloride | 0.16 | U | 0.16 |
| 2,2,4-Trimethylpentane | 5.0 | | 0.80 |
| Benzene | 3.9 | | 0.80 |
| 1,2-Dichloroethane | 0.80 | U | 0.80 |
| n-Heptane | 13 | | 0.80 |
| Trichloroethene | 0.19 | | 0.16 |
| Methyl methacrylate | 2.0 | U | 2.0 |
| 1,2-Dichloropropane | 0.80 | U | 0.80 |
| 1,4-Dioxane | 20 | U | 20 |
| Bromodichloromethane | 0.80 | U | 0.80 |
| cis-1,3-Dichloropropene | 0.80 | U | 0.80 |
| methyl isobutyl ketone | 2.0 | U | 2.0 |
| Toluene | 5.5 | | 0.80 |
| trans-1,3-Dichloropropene | 0.80 | U | 0.80 |
| 1,1,2-Trichloroethane | 0.80 | U | 0.80 |
| Tetrachloroethene | 0.80 | U | 0.80 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: SV-2-170328

Lab Sample ID: 200-38004-2

Date Sampled: 03/28/2017 1253

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115389 | Instrument ID: CHX.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24548_20.D |
| Dilution: 4.0 | | Initial Weight/Volume: 50 mL |
| Analysis Date: 04/04/2017 0324 | | Final Weight/Volume: 200 mL |
| Prep Date: 04/04/2017 0324 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|----------------------------------|------------------|-----------|------|
| Methyl Butyl Ketone (2-Hexanone) | 2.0 | U | 2.0 |
| Dibromochloromethane | 0.80 | U | 0.80 |
| 1,2-Dibromoethane | 0.80 | U | 0.80 |
| Chlorobenzene | 0.80 | U | 0.80 |
| Ethylbenzene | 1.5 | | 0.80 |
| m,p-Xylene | 6.0 | | 2.0 |
| Xylene, o- | 2.2 | | 0.80 |
| Xylene (total) | 8.2 | | 2.8 |
| Styrene | 0.80 | U | 0.80 |
| Bromoform | 0.80 | U | 0.80 |
| Cumene | 0.80 | U | 0.80 |
| 1,1,2,2-Tetrachloroethane | 0.80 | U | 0.80 |
| n-Propylbenzene | 0.80 | U | 0.80 |
| 4-Ethyltoluene | 0.80 | U | 0.80 |
| 1,3,5-Trimethylbenzene | 0.91 | | 0.80 |
| 2-Chlorotoluene | 0.80 | U | 0.80 |
| tert-Butylbenzene | 0.80 | U | 0.80 |
| 1,2,4-Trimethylbenzene | 2.2 | | 0.80 |
| sec-Butylbenzene | 0.80 | U | 0.80 |
| 4-Isopropyltoluene | 0.80 | U | 0.80 |
| 1,3-Dichlorobenzene | 0.80 | U | 0.80 |
| 1,4-Dichlorobenzene | 0.80 | U | 0.80 |
| Benzyl chloride | 0.80 | U | 0.80 |
| n-Butylbenzene | 0.80 | U | 0.80 |
| 1,2-Dichlorobenzene | 0.80 | U | 0.80 |
| 1,2,4-Trichlorobenzene | 2.0 | U | 2.0 |
| Hexachlorobutadiene | 0.80 | U | 0.80 |
| Naphthalene | 2.0 | U | 2.0 |

| Analyte | Result (ug/m3) | Qualifier | RL |
|-------------------------------|----------------|-----------|------|
| Dichlorodifluoromethane | 9.9 | U | 9.9 |
| Freon 22 | 7.1 | U | 7.1 |
| 1,2-Dichlorotetrafluoroethane | 5.6 | U | 5.6 |
| Chloromethane | 4.1 | U | 4.1 |
| n-Butane | 340 | | 4.8 |
| Vinyl chloride | 0.41 | U | 0.41 |
| 1,3-Butadiene | 7.5 | | 1.8 |
| Bromomethane | 3.1 | U | 3.1 |
| Chloroethane | 5.3 | U | 5.3 |
| Bromoethene(Vinyl Bromide) | 3.5 | U | 3.5 |
| Trichlorofluoromethane | 70 | | 4.5 |
| Freon TF | 6.1 | U | 6.1 |
| 1,1-Dichloroethene | 3.2 | U | 3.2 |
| Acetone | 180 | | 48 |
| Isopropyl alcohol | 49 | U | 49 |
| Carbon disulfide | 27 | | 6.2 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: SV-2-170328

Lab Sample ID: 200-38004-2

Date Sampled: 03/28/2017 1253

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115389 | Instrument ID: CHX.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24548_20.D |
| Dilution: 4.0 | | Initial Weight/Volume: 50 mL |
| Analysis Date: 04/04/2017 0324 | | Final Weight/Volume: 200 mL |
| Prep Date: 04/04/2017 0324 | | Injection Volume: 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|----------------------------------|----------------|-----------|------|
| 3-Chloropropene | 6.3 | U | 6.3 |
| Methylene Chloride | 6.9 | U | 6.9 |
| tert-Butyl alcohol | 61 | U | 61 |
| Methyl tert-butyl ether | 2.9 | U | 2.9 |
| trans-1,2-Dichloroethene | 3.2 | U | 3.2 |
| n-Hexane | 98 | | 2.8 |
| 1,1-Dichloroethane | 3.2 | U | 3.2 |
| Methyl Ethyl Ketone | 23 | | 5.9 |
| cis-1,2-Dichloroethene | 3.2 | U | 3.2 |
| 1,2-Dichloroethene, Total | 6.3 | U | 6.3 |
| Chloroform | 3.9 | U | 3.9 |
| Tetrahydrofuran | 59 | U | 59 |
| 1,1,1-Trichloroethane | 4.4 | U | 4.4 |
| Cyclohexane | 16 | | 2.8 |
| Carbon tetrachloride | 1.0 | U | 1.0 |
| 2,2,4-Trimethylpentane | 23 | | 3.7 |
| Benzene | 13 | | 2.6 |
| 1,2-Dichloroethane | 3.2 | U | 3.2 |
| n-Heptane | 53 | | 3.3 |
| Trichloroethene | 1.0 | | 0.86 |
| Methyl methacrylate | 8.2 | U | 8.2 |
| 1,2-Dichloropropane | 3.7 | U | 3.7 |
| 1,4-Dioxane | 72 | U | 72 |
| Bromodichloromethane | 5.4 | U | 5.4 |
| cis-1,3-Dichloropropene | 3.6 | U | 3.6 |
| methyl isobutyl ketone | 8.2 | U | 8.2 |
| Toluene | 21 | | 3.0 |
| trans-1,3-Dichloropropene | 3.6 | U | 3.6 |
| 1,1,2-Trichloroethane | 4.4 | U | 4.4 |
| Tetrachloroethene | 5.4 | U | 5.4 |
| Methyl Butyl Ketone (2-Hexanone) | 8.2 | U | 8.2 |
| Dibromochloromethane | 6.8 | U | 6.8 |
| 1,2-Dibromoethane | 6.1 | U | 6.1 |
| Chlorobenzene | 3.7 | U | 3.7 |
| Ethylbenzene | 6.6 | | 3.5 |
| m,p-Xylene | 26 | | 8.7 |
| Xylene, o- | 9.6 | | 3.5 |
| Xylene (total) | 36 | | 12 |
| Styrene | 3.4 | U | 3.4 |
| Bromoform | 8.3 | U | 8.3 |
| Cumene | 3.9 | U | 3.9 |
| 1,1,2,2-Tetrachloroethane | 5.5 | U | 5.5 |
| n-Propylbenzene | 3.9 | U | 3.9 |
| 4-Ethyltoluene | 3.9 | U | 3.9 |
| 1,3,5-Trimethylbenzene | 4.5 | | 3.9 |
| 2-Chlorotoluene | 4.1 | U | 4.1 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: SV-2-170328

Lab Sample ID: 200-38004-2

Date Sampled: 03/28/2017 1253

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115389 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24548_20.D |
| Dilution: | 4.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 04/04/2017 0324 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 0324 | | | Injection Volume: | 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|------------------------|----------------|-----------|-----|
| tert-Butylbenzene | 4.4 | U | 4.4 |
| 1,2,4-Trimethylbenzene | 11 | | 3.9 |
| sec-Butylbenzene | 4.4 | U | 4.4 |
| 4-Isopropyltoluene | 4.4 | U | 4.4 |
| 1,3-Dichlorobenzene | 4.8 | U | 4.8 |
| 1,4-Dichlorobenzene | 4.8 | U | 4.8 |
| Benzyl chloride | 4.1 | U | 4.1 |
| n-Butylbenzene | 4.4 | U | 4.4 |
| 1,2-Dichlorobenzene | 4.8 | U | 4.8 |
| 1,2,4-Trichlorobenzene | 15 | U | 15 |
| Hexachlorobutadiene | 8.5 | U | 8.5 |
| Naphthalene | 10 | U | 10 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: SV-2-170328

Lab Sample ID: 200-38004-2

Date Sampled: 03/28/2017 1253

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115389 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24548_20.D |
| Dilution: | 4.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 04/04/2017 0324 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 0324 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 10

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|-----------------------------------|-------|-----------------------|-----------|
| 75-28-5 | Isobutane | 3.40 | 16 | J N |
| 78-78-4 | Butane, 2-methyl- | 4.75 | 110 | J N |
| 109-66-0 | Pentane | 5.28 | 62 | J N |
| 627-20-3 | 2-Pentene, (Z)- | 5.58 | 11 | J N |
| 930-18-7 | Cyclopropane, 1,2-dimethyl-, cis- | 5.92 | 15 | J N |
| 107-83-5 | Pentane, 2-methyl- | 7.11 | 34 | J N |
| 96-14-0 | Pentane, 3-methyl- | 7.59 | 20 | J N |
| 591-76-4 | Hexane, 2-methyl- | 10.50 | 16 | J N |
| 589-34-4 | Hexane, 3-methyl- | 10.88 | 19 | J N |
| 108-87-2 | Cyclohexane, methyl- | 13.09 | 11 | J N |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: SV-4-170328

Lab Sample ID: 200-38004-3

Date Sampled: 03/28/2017 1247

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115389 | Instrument ID: CHX.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24548_27.D |
| Dilution: 6.06 | | Initial Weight/Volume: 33 mL |
| Analysis Date: 04/04/2017 0922 | | Final Weight/Volume: 200 mL |
| Prep Date: 04/04/2017 0922 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|-------------------------------|------------------|-----------|------|
| Dichlorodifluoromethane | 3.0 | U | 3.0 |
| Freon 22 | 3.0 | U | 3.0 |
| 1,2-Dichlorotetrafluoroethane | 1.2 | U | 1.2 |
| Chloromethane | 3.0 | U | 3.0 |
| n-Butane | 3.0 | U | 3.0 |
| Vinyl chloride | 0.24 | U | 0.24 |
| 1,3-Butadiene | 1.2 | U | 1.2 |
| Bromomethane | 1.2 | U | 1.2 |
| Chloroethane | 3.0 | U | 3.0 |
| Bromoethene(Vinyl Bromide) | 1.2 | U | 1.2 |
| Trichlorofluoromethane | 1.2 | U | 1.2 |
| Freon TF | 1.2 | U | 1.2 |
| 1,1-Dichloroethene | 1.2 | U | 1.2 |
| Acetone | 120 | | 30 |
| Isopropyl alcohol | 30 | U | 30 |
| Carbon disulfide | 3.0 | U | 3.0 |
| 3-Chloropropene | 3.0 | U | 3.0 |
| Methylene Chloride | 3.0 | U | 3.0 |
| tert-Butyl alcohol | 30 | U | 30 |
| Methyl tert-butyl ether | 1.2 | U | 1.2 |
| trans-1,2-Dichloroethene | 1.2 | U | 1.2 |
| n-Hexane | 1.2 | U | 1.2 |
| 1,1-Dichloroethane | 1.2 | U | 1.2 |
| Methyl Ethyl Ketone | 6.6 | | 3.0 |
| cis-1,2-Dichloroethene | 1.2 | U | 1.2 |
| 1,2-Dichloroethene, Total | 2.4 | U | 2.4 |
| Chloroform | 1.2 | U | 1.2 |
| Tetrahydrofuran | 30 | U | 30 |
| 1,1,1-Trichloroethane | 1.2 | U | 1.2 |
| Cyclohexane | 1.2 | U | 1.2 |
| Carbon tetrachloride | 0.24 | U | 0.24 |
| 2,2,4-Trimethylpentane | 1.2 | U | 1.2 |
| Benzene | 1.2 | U | 1.2 |
| 1,2-Dichloroethane | 1.2 | U | 1.2 |
| n-Heptane | 1.2 | U | 1.2 |
| Trichloroethene | 0.24 | U | 0.24 |
| Methyl methacrylate | 3.0 | U | 3.0 |
| 1,2-Dichloropropane | 1.2 | U | 1.2 |
| 1,4-Dioxane | 30 | U | 30 |
| Bromodichloromethane | 1.2 | U | 1.2 |
| cis-1,3-Dichloropropene | 1.2 | U | 1.2 |
| methyl isobutyl ketone | 3.0 | U | 3.0 |
| Toluene | 5.0 | | 1.2 |
| trans-1,3-Dichloropropene | 1.2 | U | 1.2 |
| 1,1,2-Trichloroethane | 1.2 | U | 1.2 |
| Tetrachloroethene | 1.2 | U | 1.2 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: SV-4-170328

Lab Sample ID: 200-38004-3

Date Sampled: 03/28/2017 1247

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115389 | Instrument ID: CHX.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24548_27.D |
| Dilution: 6.06 | | Initial Weight/Volume: 33 mL |
| Analysis Date: 04/04/2017 0922 | | Final Weight/Volume: 200 mL |
| Prep Date: 04/04/2017 0922 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|----------------------------------|------------------|-----------|-----|
| Methyl Butyl Ketone (2-Hexanone) | 3.0 | U | 3.0 |
| Dibromochloromethane | 1.2 | U | 1.2 |
| 1,2-Dibromoethane | 1.2 | U | 1.2 |
| Chlorobenzene | 1.2 | U | 1.2 |
| Ethylbenzene | 1.2 | | 1.2 |
| m,p-Xylene | 5.2 | | 3.0 |
| Xylene, o- | 1.8 | | 1.2 |
| Xylene (total) | 7.0 | | 4.2 |
| Styrene | 1.2 | U | 1.2 |
| Bromoform | 1.2 | U | 1.2 |
| Cumene | 1.2 | U | 1.2 |
| 1,1,2,2-Tetrachloroethane | 1.2 | U | 1.2 |
| n-Propylbenzene | 1.2 | U | 1.2 |
| 4-Ethyltoluene | 1.2 | U | 1.2 |
| 1,3,5-Trimethylbenzene | 1.2 | U | 1.2 |
| 2-Chlorotoluene | 1.2 | U | 1.2 |
| tert-Butylbenzene | 1.2 | U | 1.2 |
| 1,2,4-Trimethylbenzene | 1.5 | | 1.2 |
| sec-Butylbenzene | 1.2 | U | 1.2 |
| 4-Isopropyltoluene | 1.2 | U | 1.2 |
| 1,3-Dichlorobenzene | 1.2 | U | 1.2 |
| 1,4-Dichlorobenzene | 1.2 | U | 1.2 |
| Benzyl chloride | 1.2 | U | 1.2 |
| n-Butylbenzene | 1.2 | U | 1.2 |
| 1,2-Dichlorobenzene | 1.2 | U | 1.2 |
| 1,2,4-Trichlorobenzene | 3.0 | U | 3.0 |
| Hexachlorobutadiene | 1.2 | U | 1.2 |
| Naphthalene | 3.0 | U | 3.0 |

| Analyte | Result (ug/m3) | Qualifier | RL |
|-------------------------------|----------------|-----------|------|
| Dichlorodifluoromethane | 15 | U | 15 |
| Freon 22 | 11 | U | 11 |
| 1,2-Dichlorotetrafluoroethane | 8.5 | U | 8.5 |
| Chloromethane | 6.3 | U | 6.3 |
| n-Butane | 7.2 | U | 7.2 |
| Vinyl chloride | 0.62 | U | 0.62 |
| 1,3-Butadiene | 2.7 | U | 2.7 |
| Bromomethane | 4.7 | U | 4.7 |
| Chloroethane | 8.0 | U | 8.0 |
| Bromoethene(Vinyl Bromide) | 5.3 | U | 5.3 |
| Trichlorofluoromethane | 6.8 | U | 6.8 |
| Freon TF | 9.3 | U | 9.3 |
| 1,1-Dichloroethene | 4.8 | U | 4.8 |
| Acetone | 300 | | 72 |
| Isopropyl alcohol | 74 | U | 74 |
| Carbon disulfide | 9.4 | U | 9.4 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: SV-4-170328

Lab Sample ID: 200-38004-3

Date Sampled: 03/28/2017 1247

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115389 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24548_27.D |
| Dilution: | 6.06 | | | Initial Weight/Volume: | 33 mL |
| Analysis Date: | 04/04/2017 0922 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 0922 | | | Injection Volume: | 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|----------------------------------|----------------|-----------|-----|
| 3-Chloropropene | 9.5 | U | 9.5 |
| Methylene Chloride | 11 | U | 11 |
| tert-Butyl alcohol | 92 | U | 92 |
| Methyl tert-butyl ether | 4.4 | U | 4.4 |
| trans-1,2-Dichloroethene | 4.8 | U | 4.8 |
| n-Hexane | 4.3 | U | 4.3 |
| 1,1-Dichloroethane | 4.9 | U | 4.9 |
| Methyl Ethyl Ketone | 20 | | 8.9 |
| cis-1,2-Dichloroethene | 4.8 | U | 4.8 |
| 1,2-Dichloroethene, Total | 9.6 | U | 9.6 |
| Chloroform | 5.9 | U | 5.9 |
| Tetrahydrofuran | 89 | U | 89 |
| 1,1,1-Trichloroethane | 6.6 | U | 6.6 |
| Cyclohexane | 4.2 | U | 4.2 |
| Carbon tetrachloride | 1.5 | U | 1.5 |
| 2,2,4-Trimethylpentane | 5.7 | U | 5.7 |
| Benzene | 3.9 | U | 3.9 |
| 1,2-Dichloroethane | 4.9 | U | 4.9 |
| n-Heptane | 5.0 | U | 5.0 |
| Trichloroethene | 1.3 | U | 1.3 |
| Methyl methacrylate | 12 | U | 12 |
| 1,2-Dichloropropane | 5.6 | U | 5.6 |
| 1,4-Dioxane | 110 | U | 110 |
| Bromodichloromethane | 8.1 | U | 8.1 |
| cis-1,3-Dichloropropene | 5.5 | U | 5.5 |
| methyl isobutyl ketone | 12 | U | 12 |
| Toluene | 19 | | 4.6 |
| trans-1,3-Dichloropropene | 5.5 | U | 5.5 |
| 1,1,2-Trichloroethane | 6.6 | U | 6.6 |
| Tetrachloroethene | 8.2 | U | 8.2 |
| Methyl Butyl Ketone (2-Hexanone) | 12 | U | 12 |
| Dibromochloromethane | 10 | U | 10 |
| 1,2-Dibromoethane | 9.3 | U | 9.3 |
| Chlorobenzene | 5.6 | U | 5.6 |
| Ethylbenzene | 5.4 | | 5.3 |
| m,p-Xylene | 23 | | 13 |
| Xylene, o- | 7.6 | | 5.3 |
| Xylene (total) | 30 | | 18 |
| Styrene | 5.2 | U | 5.2 |
| Bromoform | 13 | U | 13 |
| Cumene | 6.0 | U | 6.0 |
| 1,1,2,2-Tetrachloroethane | 8.3 | U | 8.3 |
| n-Propylbenzene | 6.0 | U | 6.0 |
| 4-Ethyltoluene | 6.0 | U | 6.0 |
| 1,3,5-Trimethylbenzene | 6.0 | U | 6.0 |
| 2-Chlorotoluene | 6.3 | U | 6.3 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: SV-4-170328

Lab Sample ID: 200-38004-3

Date Sampled: 03/28/2017 1247

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115389 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24548_27.D |
| Dilution: | 6.06 | | | Initial Weight/Volume: | 33 mL |
| Analysis Date: | 04/04/2017 0922 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 0922 | | | Injection Volume: | 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|------------------------|----------------|-----------|-----|
| tert-Butylbenzene | 6.7 | U | 6.7 |
| 1,2,4-Trimethylbenzene | 7.3 | | 6.0 |
| sec-Butylbenzene | 6.7 | U | 6.7 |
| 4-Isopropyltoluene | 6.7 | U | 6.7 |
| 1,3-Dichlorobenzene | 7.3 | U | 7.3 |
| 1,4-Dichlorobenzene | 7.3 | U | 7.3 |
| Benzyl chloride | 6.3 | U | 6.3 |
| n-Butylbenzene | 6.7 | U | 6.7 |
| 1,2-Dichlorobenzene | 7.3 | U | 7.3 |
| 1,2,4-Trichlorobenzene | 22 | U | 22 |
| Hexachlorobutadiene | 13 | U | 13 |
| Naphthalene | 16 | U | 16 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: SV-4-170328

Lab Sample ID: 200-38004-3

Date Sampled: 03/28/2017 1247

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15

Analysis Batch: 200-115389

Instrument ID: CHX.i

Prep Method: Summa Canister

Prep Batch: N/A

Lab File ID: 24548_27.D

Dilution: 6.06

Initial Weight/Volume: 33 mL

Analysis Date: 04/04/2017 0922

Final Weight/Volume: 200 mL

Prep Date: 04/04/2017 0922

Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 1

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|------------|-------|-----------------------|-----------|
| 5989-27-5 | D-Limonene | 22.89 | 19 | J N |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: SV-5-170328

Lab Sample ID: 200-38004-4

Date Sampled: 03/28/2017 1305

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | |
|--------------------------------|----------------------------|-------------------------------|--|
| Analysis Method: TO-15 | Analysis Batch: 200-115389 | Instrument ID: CHX.i | |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24548_22.D | |
| Dilution: 2.0 | | Initial Weight/Volume: 100 mL | |
| Analysis Date: 04/04/2017 0505 | | Final Weight/Volume: 200 mL | |
| Prep Date: 04/04/2017 0505 | | Injection Volume: 200 mL | |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|-------------------------------|------------------|-----------|-------|
| Dichlorodifluoromethane | 1.0 | U | 1.0 |
| Freon 22 | 1.0 | U | 1.0 |
| 1,2-Dichlorotetrafluoroethane | 0.40 | U | 0.40 |
| Chloromethane | 1.0 | U | 1.0 |
| n-Butane | 56 | | 1.0 |
| Vinyl chloride | 0.080 | U | 0.080 |
| 1,3-Butadiene | 0.69 | | 0.40 |
| Bromomethane | 0.40 | U | 0.40 |
| Chloroethane | 1.0 | U | 1.0 |
| Bromoethene(Vinyl Bromide) | 0.40 | U | 0.40 |
| Trichlorofluoromethane | 0.40 | U | 0.40 |
| Freon TF | 0.40 | U | 0.40 |
| 1,1-Dichloroethene | 0.40 | U | 0.40 |
| Acetone | 31 | | 10 |
| Isopropyl alcohol | 13 | | 10 |
| Carbon disulfide | 23 | | 1.0 |
| 3-Chloropropene | 1.0 | U | 1.0 |
| Methylene Chloride | 1.0 | U | 1.0 |
| tert-Butyl alcohol | 10 | U | 10 |
| Methyl tert-butyl ether | 0.40 | U | 0.40 |
| trans-1,2-Dichloroethene | 0.40 | U | 0.40 |
| n-Hexane | 13 | | 0.40 |
| 1,1-Dichloroethane | 0.40 | U | 0.40 |
| Methyl Ethyl Ketone | 12 | | 1.0 |
| cis-1,2-Dichloroethene | 0.40 | U | 0.40 |
| 1,2-Dichloroethene, Total | 0.80 | U | 0.80 |
| Chloroform | 0.49 | | 0.40 |
| Tetrahydrofuran | 10 | U | 10 |
| 1,1,1-Trichloroethane | 0.40 | U | 0.40 |
| Cyclohexane | 4.6 | | 0.40 |
| Carbon tetrachloride | 0.32 | | 0.080 |
| 2,2,4-Trimethylpentane | 7.0 | | 0.40 |
| Benzene | 9.4 | | 0.40 |
| 1,2-Dichloroethane | 0.40 | U | 0.40 |
| n-Heptane | 9.9 | | 0.40 |
| Trichloroethene | 0.75 | | 0.080 |
| Methyl methacrylate | 1.0 | U | 1.0 |
| 1,2-Dichloropropane | 0.40 | U | 0.40 |
| 1,4-Dioxane | 10 | U | 10 |
| Bromodichloromethane | 0.40 | U | 0.40 |
| cis-1,3-Dichloropropene | 0.40 | U | 0.40 |
| methyl isobutyl ketone | 1.0 | U | 1.0 |
| Toluene | 12 | | 0.40 |
| trans-1,3-Dichloropropene | 0.40 | U | 0.40 |
| 1,1,2-Trichloroethane | 0.40 | U | 0.40 |
| Tetrachloroethene | 0.40 | U | 0.40 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: SV-5-170328

Lab Sample ID: 200-38004-4

Date Sampled: 03/28/2017 1305

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | |
|--------------------------------|----------------------------|-------------------------------|--|
| Analysis Method: TO-15 | Analysis Batch: 200-115389 | Instrument ID: CHX.i | |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24548_22.D | |
| Dilution: 2.0 | | Initial Weight/Volume: 100 mL | |
| Analysis Date: 04/04/2017 0505 | | Final Weight/Volume: 200 mL | |
| Prep Date: 04/04/2017 0505 | | Injection Volume: 200 mL | |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|----------------------------------|------------------|-----------|------|
| Methyl Butyl Ketone (2-Hexanone) | 1.0 | U | 1.0 |
| Dibromochloromethane | 0.40 | U | 0.40 |
| 1,2-Dibromoethane | 0.40 | U | 0.40 |
| Chlorobenzene | 0.40 | U | 0.40 |
| Ethylbenzene | 2.2 | | 0.40 |
| m,p-Xylene | 8.0 | | 1.0 |
| Xylene, o- | 2.9 | | 0.40 |
| Xylene (total) | 11 | | 1.4 |
| Styrene | 0.40 | U | 0.40 |
| Bromoform | 0.40 | U | 0.40 |
| Cumene | 0.40 | U | 0.40 |
| 1,1,2,2-Tetrachloroethane | 0.40 | U | 0.40 |
| n-Propylbenzene | 0.44 | | 0.40 |
| 4-Ethyltoluene | 0.68 | | 0.40 |
| 1,3,5-Trimethylbenzene | 0.72 | | 0.40 |
| 2-Chlorotoluene | 0.40 | U | 0.40 |
| tert-Butylbenzene | 0.40 | U | 0.40 |
| 1,2,4-Trimethylbenzene | 2.3 | | 0.40 |
| sec-Butylbenzene | 0.40 | U | 0.40 |
| 4-Isopropyltoluene | 0.40 | U | 0.40 |
| 1,3-Dichlorobenzene | 1.2 | | 0.40 |
| 1,4-Dichlorobenzene | 0.40 | U | 0.40 |
| Benzyl chloride | 0.40 | U | 0.40 |
| n-Butylbenzene | 0.40 | U | 0.40 |
| 1,2-Dichlorobenzene | 0.40 | U | 0.40 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 |
| Hexachlorobutadiene | 0.40 | U | 0.40 |
| Naphthalene | 1.0 | U | 1.0 |

| Analyte | Result (ug/m3) | Qualifier | RL |
|-------------------------------|----------------|-----------|------|
| Dichlorodifluoromethane | 4.9 | U | 4.9 |
| Freon 22 | 3.5 | U | 3.5 |
| 1,2-Dichlorotetrafluoroethane | 2.8 | U | 2.8 |
| Chloromethane | 2.1 | U | 2.1 |
| n-Butane | 130 | | 2.4 |
| Vinyl chloride | 0.20 | U | 0.20 |
| 1,3-Butadiene | 1.5 | | 0.88 |
| Bromomethane | 1.6 | U | 1.6 |
| Chloroethane | 2.6 | U | 2.6 |
| Bromoethene(Vinyl Bromide) | 1.7 | U | 1.7 |
| Trichlorofluoromethane | 2.2 | U | 2.2 |
| Freon TF | 3.1 | U | 3.1 |
| 1,1-Dichloroethene | 1.6 | U | 1.6 |
| Acetone | 75 | | 24 |
| Isopropyl alcohol | 32 | | 25 |
| Carbon disulfide | 70 | | 3.1 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: SV-5-170328

Lab Sample ID: 200-38004-4

Date Sampled: 03/28/2017 1305

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | |
|--------------------------------|----------------------------|-------------------------------|--|
| Analysis Method: TO-15 | Analysis Batch: 200-115389 | Instrument ID: CHX.i | |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24548_22.D | |
| Dilution: 2.0 | | Initial Weight/Volume: 100 mL | |
| Analysis Date: 04/04/2017 0505 | | Final Weight/Volume: 200 mL | |
| Prep Date: 04/04/2017 0505 | | Injection Volume: 200 mL | |

| Analyte | Result (ug/m3) | Qualifier | RL |
|----------------------------------|----------------|-----------|------|
| 3-Chloropropene | 3.1 | U | 3.1 |
| Methylene Chloride | 3.5 | U | 3.5 |
| tert-Butyl alcohol | 30 | U | 30 |
| Methyl tert-butyl ether | 1.4 | U | 1.4 |
| trans-1,2-Dichloroethene | 1.6 | U | 1.6 |
| n-Hexane | 47 | | 1.4 |
| 1,1-Dichloroethane | 1.6 | U | 1.6 |
| Methyl Ethyl Ketone | 35 | | 2.9 |
| cis-1,2-Dichloroethene | 1.6 | U | 1.6 |
| 1,2-Dichloroethene, Total | 3.2 | U | 3.2 |
| Chloroform | 2.4 | | 2.0 |
| Tetrahydrofuran | 29 | U | 29 |
| 1,1,1-Trichloroethane | 2.2 | U | 2.2 |
| Cyclohexane | 16 | | 1.4 |
| Carbon tetrachloride | 2.0 | | 0.50 |
| 2,2,4-Trimethylpentane | 33 | | 1.9 |
| Benzene | 30 | | 1.3 |
| 1,2-Dichloroethane | 1.6 | U | 1.6 |
| n-Heptane | 41 | | 1.6 |
| Trichloroethene | 4.0 | | 0.43 |
| Methyl methacrylate | 4.1 | U | 4.1 |
| 1,2-Dichloropropane | 1.8 | U | 1.8 |
| 1,4-Dioxane | 36 | U | 36 |
| Bromodichloromethane | 2.7 | U | 2.7 |
| cis-1,3-Dichloropropene | 1.8 | U | 1.8 |
| methyl isobutyl ketone | 4.1 | U | 4.1 |
| Toluene | 45 | | 1.5 |
| trans-1,3-Dichloropropene | 1.8 | U | 1.8 |
| 1,1,2-Trichloroethane | 2.2 | U | 2.2 |
| Tetrachloroethene | 2.7 | U | 2.7 |
| Methyl Butyl Ketone (2-Hexanone) | 4.1 | U | 4.1 |
| Dibromochloromethane | 3.4 | U | 3.4 |
| 1,2-Dibromoethane | 3.1 | U | 3.1 |
| Chlorobenzene | 1.8 | U | 1.8 |
| Ethylbenzene | 9.5 | | 1.7 |
| m,p-Xylene | 35 | | 4.3 |
| Xylene, o- | 13 | | 1.7 |
| Xylene (total) | 47 | | 6.1 |
| Styrene | 1.7 | U | 1.7 |
| Bromoform | 4.1 | U | 4.1 |
| Cumene | 2.0 | U | 2.0 |
| 1,1,2,2-Tetrachloroethane | 2.7 | U | 2.7 |
| n-Propylbenzene | 2.2 | | 2.0 |
| 4-Ethyltoluene | 3.4 | | 2.0 |
| 1,3,5-Trimethylbenzene | 3.5 | | 2.0 |
| 2-Chlorotoluene | 2.1 | U | 2.1 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: SV-5-170328

Lab Sample ID: 200-38004-4

Date Sampled: 03/28/2017 1305

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115389 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24548_22.D |
| Dilution: | 2.0 | | | Initial Weight/Volume: | 100 mL |
| Analysis Date: | 04/04/2017 0505 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 0505 | | | Injection Volume: | 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|------------------------|----------------|-----------|-----|
| tert-Butylbenzene | 2.2 | U | 2.2 |
| 1,2,4-Trimethylbenzene | 11 | | 2.0 |
| sec-Butylbenzene | 2.2 | U | 2.2 |
| 4-Isopropyltoluene | 2.2 | U | 2.2 |
| 1,3-Dichlorobenzene | 7.3 | | 2.4 |
| 1,4-Dichlorobenzene | 2.4 | U | 2.4 |
| Benzyl chloride | 2.1 | U | 2.1 |
| n-Butylbenzene | 2.2 | U | 2.2 |
| 1,2-Dichlorobenzene | 2.4 | U | 2.4 |
| 1,2,4-Trichlorobenzene | 7.4 | U | 7.4 |
| Hexachlorobutadiene | 4.3 | U | 4.3 |
| Naphthalene | 5.2 | U | 5.2 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Client Sample ID: SV-5-170328

Lab Sample ID: 200-38004-4

Date Sampled: 03/28/2017 1305

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115389 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24548_22.D |
| Dilution: | 2.0 | | | Initial Weight/Volume: | 100 mL |
| Analysis Date: | 04/04/2017 0505 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 0505 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 10

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|----------------------|-------|-----------------------|-----------|
| 75-28-5 | Isobutane | 3.40 | 14 | J N |
| | Unknown | 4.04 | 7.9 | J |
| 78-78-4 | Butane, 2-methyl- | 4.75 | 36 | J N |
| 109-66-0 | Pentane | 5.28 | 23 | J N |
| | Unknown | 5.75 | 6.5 | J |
| 107-83-5 | Pentane, 2-methyl- | 7.11 | 15 | J N |
| 591-76-4 | Hexane, 2-methyl- | 10.50 | 11 | J N |
| 764-42-1 | Fumaronitrile | 11.43 | 8.9 | J N |
| 108-87-2 | Cyclohexane, methyl- | 13.09 | 6.7 | J N |
| 5989-27-5 | D-Limonene | 22.89 | 45 | J N |

DATA REPORTING QUALIFIERS

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

| Lab Section | Qualifier | Description |
|--------------------|------------------|---|
| Air - GC/MS VOA | J | Indicates an Estimated Value for TICs |
| | U | Indicates the analyte was analyzed for but not detected. |
| | N | This flag indicates the presumptive evidence of a compound. |

QUALITY CONTROL RESULTS

Quality Control Results

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|--------------------|--------------|---------------|--------|------------|
| Air - GC/MS VOA | | | | | |
| Analysis Batch:200-115389 | | | | | |
| LCS 200-115389/5 | Lab Control Sample | T | Air | TO-15 | |
| MB 200-115389/6 | Method Blank | T | Air | TO-15 | |
| 200-38004-1 | AA-170328 | T | Air | TO-15 | |
| 200-38004-2 | SV-2-170328 | T | Air | TO-15 | |
| 200-38004-3 | SV-4-170328 | T | Air | TO-15 | |
| 200-38004-4 | SV-5-170328 | T | Air | TO-15 | |

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 200-38004-1
Sdg Number: 200-38004-1

Method Blank - Batch: 200-115389

Method: TO-15
Preparation: Summa Canister

Lab Sample ID: MB 200-115389/6
Client Matrix: Air
Dilution: 1.0
Analysis Date: 04/03/2017 1359
Prep Date: 04/03/2017 1359
Leach Date: N/A

Analysis Batch: 200-115389
Prep Batch: N/A
Leach Batch: N/A
Units: ppb v/v

Instrument ID: CHX.i
Lab File ID: 24548_06.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | RL |
|-------------------------------|--------|------|-------|
| Dichlorodifluoromethane | 0.50 | U | 0.50 |
| Freon 22 | 0.50 | U | 0.50 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | U | 0.20 |
| Chloromethane | 0.50 | U | 0.50 |
| n-Butane | 0.50 | U | 0.50 |
| Vinyl chloride | 0.040 | U | 0.040 |
| 1,3-Butadiene | 0.20 | U | 0.20 |
| Bromomethane | 0.20 | U | 0.20 |
| Chloroethane | 0.50 | U | 0.50 |
| Bromoethene(Vinyl Bromide) | 0.20 | U | 0.20 |
| Trichlorofluoromethane | 0.20 | U | 0.20 |
| Freon TF | 0.20 | U | 0.20 |
| 1,1-Dichloroethene | 0.20 | U | 0.20 |
| Acetone | 5.0 | U | 5.0 |
| Isopropyl alcohol | 5.0 | U | 5.0 |
| Carbon disulfide | 0.50 | U | 0.50 |
| 3-Chloropropene | 0.50 | U | 0.50 |
| Methylene Chloride | 0.50 | U | 0.50 |
| tert-Butyl alcohol | 5.0 | U | 5.0 |
| Methyl tert-butyl ether | 0.20 | U | 0.20 |
| trans-1,2-Dichloroethene | 0.20 | U | 0.20 |
| n-Hexane | 0.20 | U | 0.20 |
| 1,1-Dichloroethane | 0.20 | U | 0.20 |
| Methyl Ethyl Ketone | 0.50 | U | 0.50 |
| cis-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 1,2-Dichloroethene, Total | 0.40 | U | 0.40 |
| Chloroform | 0.20 | U | 0.20 |
| Tetrahydrofuran | 5.0 | U | 5.0 |
| 1,1,1-Trichloroethane | 0.20 | U | 0.20 |
| Cyclohexane | 0.20 | U | 0.20 |
| Carbon tetrachloride | 0.040 | U | 0.040 |
| 2,2,4-Trimethylpentane | 0.20 | U | 0.20 |
| Benzene | 0.20 | U | 0.20 |
| 1,2-Dichloroethane | 0.20 | U | 0.20 |
| n-Heptane | 0.20 | U | 0.20 |
| Trichloroethene | 0.040 | U | 0.040 |
| Methyl methacrylate | 0.50 | U | 0.50 |
| 1,2-Dichloropropane | 0.20 | U | 0.20 |
| 1,4-Dioxane | 5.0 | U | 5.0 |
| Bromodichloromethane | 0.20 | U | 0.20 |
| cis-1,3-Dichloropropene | 0.20 | U | 0.20 |
| methyl isobutyl ketone | 0.50 | U | 0.50 |
| Toluene | 0.20 | U | 0.20 |
| trans-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 1,1,2-Trichloroethane | 0.20 | U | 0.20 |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38004-1
Sdg Number: 200-38004-1

Method Blank - Batch: 200-115389

Method: TO-15

Preparation: Summa Canister

Lab Sample ID: MB 200-115389/6
Client Matrix: Air
Dilution: 1.0
Analysis Date: 04/03/2017 1359
Prep Date: 04/03/2017 1359
Leach Date: N/A

Analysis Batch: 200-115389
Prep Batch: N/A
Leach Batch: N/A
Units: ppb v/v

Instrument ID: CHX.i
Lab File ID: 24548_06.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | RL |
|----------------------------------|--------|------|------|
| Tetrachloroethene | 0.20 | U | 0.20 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | U | 0.50 |
| Dibromochloromethane | 0.20 | U | 0.20 |
| 1,2-Dibromoethane | 0.20 | U | 0.20 |
| Chlorobenzene | 0.20 | U | 0.20 |
| Ethylbenzene | 0.20 | U | 0.20 |
| m,p-Xylene | 0.50 | U | 0.50 |
| Xylene, o- | 0.20 | U | 0.20 |
| Xylene (total) | 0.70 | U | 0.70 |
| Styrene | 0.20 | U | 0.20 |
| Bromoform | 0.20 | U | 0.20 |
| Cumene | 0.20 | U | 0.20 |
| 1,1,2,2-Tetrachloroethane | 0.20 | U | 0.20 |
| n-Propylbenzene | 0.20 | U | 0.20 |
| 4-Ethyltoluene | 0.20 | U | 0.20 |
| 1,3,5-Trimethylbenzene | 0.20 | U | 0.20 |
| 2-Chlorotoluene | 0.20 | U | 0.20 |
| tert-Butylbenzene | 0.20 | U | 0.20 |
| 1,2,4-Trimethylbenzene | 0.20 | U | 0.20 |
| sec-Butylbenzene | 0.20 | U | 0.20 |
| 4-Isopropyltoluene | 0.20 | U | 0.20 |
| 1,3-Dichlorobenzene | 0.20 | U | 0.20 |
| 1,4-Dichlorobenzene | 0.20 | U | 0.20 |
| Benzyl chloride | 0.20 | U | 0.20 |
| n-Butylbenzene | 0.20 | U | 0.20 |
| 1,2-Dichlorobenzene | 0.20 | U | 0.20 |
| 1,2,4-Trichlorobenzene | 0.50 | U | 0.50 |
| Hexachlorobutadiene | 0.20 | U | 0.20 |
| Naphthalene | 0.50 | U | 0.50 |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Method Blank - Batch: 200-115389

Method: TO-15

Preparation: Summa Canister

Lab Sample ID: MB 200-115389/6
 Client Matrix: Air
 Dilution: 1.0
 Analysis Date: 04/03/2017 1359
 Prep Date: 04/03/2017 1359
 Leach Date: N/A

Analysis Batch: 200-115389
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/m3

Instrument ID: CHX.i
 Lab File ID: 24548_06.D
 Initial Weight/Volume: 200 mL
 Final Weight/Volume: 200 mL
 Injection Volume: 200 mL

| Analyte | Result | Qual | RL |
|-------------------------------|--------|------|------|
| Dichlorodifluoromethane | 2.5 | U | 2.5 |
| Freon 22 | 1.8 | U | 1.8 |
| 1,2-Dichlorotetrafluoroethane | 1.4 | U | 1.4 |
| Chloromethane | 1.0 | U | 1.0 |
| n-Butane | 1.2 | U | 1.2 |
| Vinyl chloride | 0.10 | U | 0.10 |
| 1,3-Butadiene | 0.44 | U | 0.44 |
| Bromomethane | 0.78 | U | 0.78 |
| Chloroethane | 1.3 | U | 1.3 |
| Bromoethene(Vinyl Bromide) | 0.87 | U | 0.87 |
| Trichlorofluoromethane | 1.1 | U | 1.1 |
| Freon TF | 1.5 | U | 1.5 |
| 1,1-Dichloroethene | 0.79 | U | 0.79 |
| Acetone | 12 | U | 12 |
| Isopropyl alcohol | 12 | U | 12 |
| Carbon disulfide | 1.6 | U | 1.6 |
| 3-Chloropropene | 1.6 | U | 1.6 |
| Methylene Chloride | 1.7 | U | 1.7 |
| tert-Butyl alcohol | 15 | U | 15 |
| Methyl tert-butyl ether | 0.72 | U | 0.72 |
| trans-1,2-Dichloroethene | 0.79 | U | 0.79 |
| n-Hexane | 0.70 | U | 0.70 |
| 1,1-Dichloroethane | 0.81 | U | 0.81 |
| Methyl Ethyl Ketone | 1.5 | U | 1.5 |
| cis-1,2-Dichloroethene | 0.79 | U | 0.79 |
| 1,2-Dichloroethene, Total | 1.6 | U | 1.6 |
| Chloroform | 0.98 | U | 0.98 |
| Tetrahydrofuran | 15 | U | 15 |
| 1,1,1-Trichloroethane | 1.1 | U | 1.1 |
| Cyclohexane | 0.69 | U | 0.69 |
| Carbon tetrachloride | 0.25 | U | 0.25 |
| 2,2,4-Trimethylpentane | 0.93 | U | 0.93 |
| Benzene | 0.64 | U | 0.64 |
| 1,2-Dichloroethane | 0.81 | U | 0.81 |
| n-Heptane | 0.82 | U | 0.82 |
| Trichloroethene | 0.21 | U | 0.21 |
| Methyl methacrylate | 2.0 | U | 2.0 |
| 1,2-Dichloropropane | 0.92 | U | 0.92 |
| 1,4-Dioxane | 18 | U | 18 |
| Bromodichloromethane | 1.3 | U | 1.3 |
| cis-1,3-Dichloropropene | 0.91 | U | 0.91 |
| methyl isobutyl ketone | 2.0 | U | 2.0 |
| Toluene | 0.75 | U | 0.75 |
| trans-1,3-Dichloropropene | 0.91 | U | 0.91 |
| 1,1,2-Trichloroethane | 1.1 | U | 1.1 |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38004-1

Sdg Number: 200-38004-1

Method Blank - Batch: 200-115389

Method: TO-15

Preparation: Summa Canister

Lab Sample ID: MB 200-115389/6
 Client Matrix: Air
 Dilution: 1.0
 Analysis Date: 04/03/2017 1359
 Prep Date: 04/03/2017 1359
 Leach Date: N/A

Analysis Batch: 200-115389
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/m3

Instrument ID: CHX.i
 Lab File ID: 24548_06.D
 Initial Weight/Volume: 200 mL
 Final Weight/Volume: 200 mL
 Injection Volume: 200 mL

| Analyte | Result | Qual | RL |
|----------------------------------|--------|------|------|
| Tetrachloroethene | 1.4 | U | 1.4 |
| Methyl Butyl Ketone (2-Hexanone) | 2.0 | U | 2.0 |
| Dibromochloromethane | 1.7 | U | 1.7 |
| 1,2-Dibromoethane | 1.5 | U | 1.5 |
| Chlorobenzene | 0.92 | U | 0.92 |
| Ethylbenzene | 0.87 | U | 0.87 |
| m,p-Xylene | 2.2 | U | 2.2 |
| Xylene, o- | 0.87 | U | 0.87 |
| Xylene (total) | 3.0 | U | 3.0 |
| Styrene | 0.85 | U | 0.85 |
| Bromoform | 2.1 | U | 2.1 |
| Cumene | 0.98 | U | 0.98 |
| 1,1,2,2-Tetrachloroethane | 1.4 | U | 1.4 |
| n-Propylbenzene | 0.98 | U | 0.98 |
| 4-Ethyltoluene | 0.98 | U | 0.98 |
| 1,3,5-Trimethylbenzene | 0.98 | U | 0.98 |
| 2-Chlorotoluene | 1.0 | U | 1.0 |
| tert-Butylbenzene | 1.1 | U | 1.1 |
| 1,2,4-Trimethylbenzene | 0.98 | U | 0.98 |
| sec-Butylbenzene | 1.1 | U | 1.1 |
| 4-Isopropyltoluene | 1.1 | U | 1.1 |
| 1,3-Dichlorobenzene | 1.2 | U | 1.2 |
| 1,4-Dichlorobenzene | 1.2 | U | 1.2 |
| Benzyl chloride | 1.0 | U | 1.0 |
| n-Butylbenzene | 1.1 | U | 1.1 |
| 1,2-Dichlorobenzene | 1.2 | U | 1.2 |
| 1,2,4-Trichlorobenzene | 3.7 | U | 3.7 |
| Hexachlorobutadiene | 2.1 | U | 2.1 |
| Naphthalene | 2.6 | U | 2.6 |

Method Blank TICs- Batch: 200-115389

| Cas Number | Analyte | RT | Est. Result (ppb) | Qual |
|------------|---------------------------------|----|-------------------|------|
| | Tentatively Identified Compound | | None | |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38004-1
Sdg Number: 200-38004-1

Lab Control Sample - Batch: 200-115389

Method: TO-15

Preparation: Summa Canister

| | | |
|---------------------------------|----------------------------|-------------------------------|
| Lab Sample ID: LCS 200-115389/5 | Analysis Batch: 200-115389 | Instrument ID: CHX.i |
| Client Matrix: Air | Prep Batch: N/A | Lab File ID: 24548_05.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 200 mL |
| Analysis Date: 04/03/2017 1309 | Units: ppb v/v | Final Weight/Volume: 200 mL |
| Prep Date: 04/03/2017 1309 | | Injection Volume: 200 mL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-------------------------------|--------------|--------|--------|----------|------|
| Dichlorodifluoromethane | 10.0 | 9.87 | 99 | 68 - 128 | |
| Freon 22 | 10.0 | 8.67 | 87 | 64 - 128 | |
| 1,2-Dichlorotetrafluoroethane | 10.0 | 10.7 | 107 | 78 - 138 | |
| Chloromethane | 10.0 | 8.11 | 81 | 57 - 126 | |
| n-Butane | 10.0 | 7.96 | 80 | 56 - 130 | |
| Vinyl chloride | 10.0 | 8.82 | 88 | 62 - 125 | |
| 1,3-Butadiene | 10.0 | 8.42 | 84 | 59 - 125 | |
| Bromomethane | 10.0 | 9.99 | 100 | 68 - 128 | |
| Chloroethane | 10.0 | 9.17 | 92 | 65 - 125 | |
| Bromoethene(Vinyl Bromide) | 10.0 | 10.2 | 102 | 67 - 127 | |
| Trichlorofluoromethane | 10.0 | 10.2 | 102 | 67 - 127 | |
| Freon TF | 10.0 | 10.4 | 104 | 68 - 128 | |
| 1,1-Dichloroethene | 10.0 | 10.3 | 103 | 67 - 127 | |
| Acetone | 10.0 | 8.68 | 87 | 64 - 136 | |
| Isopropyl alcohol | 10.0 | 8.81 | 88 | 55 - 124 | |
| Carbon disulfide | 10.0 | 11.2 | 112 | 81 - 141 | |
| 3-Chloropropene | 10.0 | 6.64 | 66 | 53 - 133 | |
| Methylene Chloride | 10.0 | 8.58 | 86 | 62 - 122 | |
| tert-Butyl alcohol | 10.0 | 9.55 | 96 | 64 - 124 | |
| Methyl tert-butyl ether | 10.0 | 10.0 | 100 | 67 - 127 | |
| trans-1,2-Dichloroethene | 10.0 | 9.87 | 99 | 72 - 132 | |
| n-Hexane | 10.0 | 9.58 | 96 | 71 - 131 | |
| 1,1-Dichloroethane | 10.0 | 9.68 | 97 | 66 - 126 | |
| Methyl Ethyl Ketone | 10.0 | 9.58 | 96 | 62 - 122 | |
| cis-1,2-Dichloroethene | 10.0 | 10.0 | 101 | 67 - 127 | |
| Chloroform | 10.0 | 9.90 | 99 | 69 - 129 | |
| Tetrahydrofuran | 10.0 | 8.38 | 84 | 61 - 136 | |
| 1,1,1-Trichloroethane | 10.0 | 10.3 | 103 | 70 - 130 | |
| Cyclohexane | 10.0 | 10.0 | 100 | 69 - 129 | |
| Carbon tetrachloride | 10.0 | 10.9 | 109 | 62 - 143 | |
| 2,2,4-Trimethylpentane | 10.0 | 8.79 | 88 | 67 - 127 | |
| Benzene | 10.0 | 9.69 | 97 | 67 - 127 | |
| 1,2-Dichloroethane | 10.0 | 9.61 | 96 | 67 - 132 | |
| n-Heptane | 10.0 | 8.18 | 82 | 62 - 130 | |
| Trichloroethene | 10.0 | 10.5 | 105 | 68 - 128 | |
| Methyl methacrylate | 10.0 | 9.83 | 98 | 70 - 130 | |
| 1,2-Dichloropropane | 10.0 | 8.90 | 89 | 67 - 127 | |
| 1,4-Dioxane | 10.0 | 9.99 | 100 | 66 - 132 | |
| Bromodichloromethane | 10.0 | 9.67 | 97 | 69 - 129 | |
| cis-1,3-Dichloropropene | 10.0 | 9.80 | 98 | 70 - 130 | |
| methyl isobutyl ketone | 10.0 | 8.13 | 81 | 62 - 130 | |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38004-1
Sdg Number: 200-38004-1

Lab Control Sample - Batch: 200-115389

Method: TO-15

Preparation: Summa Canister

| | | |
|---------------------------------|----------------------------|-------------------------------|
| Lab Sample ID: LCS 200-115389/5 | Analysis Batch: 200-115389 | Instrument ID: CHX.i |
| Client Matrix: Air | Prep Batch: N/A | Lab File ID: 24548_05.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 200 mL |
| Analysis Date: 04/03/2017 1309 | Units: ppb v/v | Final Weight/Volume: 200 mL |
| Prep Date: 04/03/2017 1309 | | Injection Volume: 200 mL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|----------------------------------|--------------|--------|--------|----------|------|
| Toluene | 10.0 | 10.1 | 101 | 67 - 127 | |
| trans-1,3-Dichloropropene | 10.0 | 9.39 | 94 | 69 - 129 | |
| 1,1,2-Trichloroethane | 10.0 | 9.79 | 98 | 69 - 129 | |
| Tetrachloroethene | 10.0 | 11.7 | 117 | 70 - 130 | |
| Methyl Butyl Ketone (2-Hexanone) | 10.0 | 7.68 | 77 | 61 - 127 | |
| Dibromochloromethane | 10.0 | 10.1 | 101 | 66 - 130 | |
| 1,2-Dibromoethane | 10.0 | 10.4 | 104 | 70 - 130 | |
| Chlorobenzene | 10.0 | 10.5 | 105 | 68 - 128 | |
| Ethylbenzene | 10.0 | 10.0 | 100 | 68 - 128 | |
| m,p-Xylene | 20.0 | 20.6 | 103 | 68 - 128 | |
| Xylene, o- | 10.0 | 10.2 | 102 | 67 - 127 | |
| Styrene | 10.0 | 10.4 | 104 | 68 - 128 | |
| Bromoform | 10.0 | 9.21 | 92 | 34 - 170 | |
| Cumene | 10.0 | 10.2 | 102 | 67 - 127 | |
| 1,1,2,2-Tetrachloroethane | 10.0 | 9.58 | 96 | 69 - 129 | |
| n-Propylbenzene | 10.0 | 9.67 | 97 | 67 - 127 | |
| 4-Ethyltoluene | 10.0 | 10.3 | 103 | 69 - 129 | |
| 1,3,5-Trimethylbenzene | 10.0 | 10.2 | 103 | 65 - 125 | |
| 2-Chlorotoluene | 10.0 | 9.73 | 97 | 67 - 127 | |
| tert-Butylbenzene | 10.0 | 10.4 | 104 | 63 - 125 | |
| 1,2,4-Trimethylbenzene | 10.0 | 10.1 | 101 | 65 - 125 | |
| sec-Butylbenzene | 10.0 | 9.99 | 100 | 66 - 126 | |
| 4-Isopropyltoluene | 10.0 | 10.3 | 103 | 67 - 129 | |
| 1,3-Dichlorobenzene | 10.0 | 10.4 | 104 | 67 - 127 | |
| 1,4-Dichlorobenzene | 10.0 | 10.2 | 102 | 66 - 126 | |
| Benzyl chloride | 10.0 | 8.15 | 82 | 54 - 135 | |
| n-Butylbenzene | 10.0 | 9.47 | 95 | 67 - 127 | |
| 1,2-Dichlorobenzene | 10.0 | 10.7 | 107 | 67 - 127 | |
| 1,2,4-Trichlorobenzene | 10.0 | 11.2 | 112 | 59 - 126 | |
| Hexachlorobutadiene | 10.0 | 12.8 | 128 | 62 - 130 | |
| Naphthalene | 10.0 | 9.70 | 97 | 50 - 121 | |

ORIGIN ID:LDJA (732) 549-3900
SAMPLE CONTROL - BRIAN BORDIERI
TESTAMERICA INC.
777 NEW DURHAM ROAD

SHIP DATE: 29MAR17
ACTWGT: 33.45 LB
CAD: 0358159/CAFE3011

EDISON, NJ 08817
UNITED STATES US

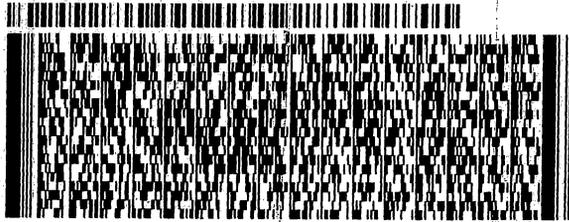
BILL RECIPIENT

TO **SAMPLE CUSTODY**
TEST AMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

(802) 655-1203

REF:

DEPT:



FedEx
Express



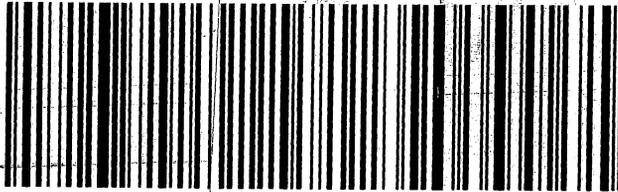
J16121610100100

TRK# 6116 6278 9826
0201

THU - 30 MAR 3:00P
STANDARD OVERNIGHT

NA BTVA

05403
VT - US - BTV



Part # 154254-354 RIT2 EXP 01/18 \$.

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 200-38004-1

SDG Number: 200-38004-1

Login Number: 38004

List Source: TestAmerica Burlington

List Number: 1

Creator: Cota, Fred P

| Question | Answer | Comment |
|--|--------|--|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | True | Lab does not accept radioactive samples. |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | N/A | Thermal preservation not required. |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | N/A | Thermal preservation not required. |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | False | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | N/A | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

ANALYTICAL REPORT

Job Number: 200-38009-1

SDG Number: 200-38009-1

Job Description: American Museum of Natural History

For:
AKRF Inc
440 Park Avenue South
7th Floor
New York, NY 10016
Attention: Mr. Eric Park

Kristine Dusablon

Approved for release.
Kristine A Dusablon
Project Manager II
4/10/2017 4:13 PM

Kristine A Dusablon, Project Manager II
30 Community Drive, South Burlington, VT, 05403
(802)660-1990
kris.dusablon@testamericainc.com
04/10/2017

cc: Ms. Adrianna Bosco
Mr. Matthew Levy

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



CASE NARRATIVE

Client: AKRF Inc

Project: American Museum of Natural History

Report Number: 200-38009-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 03/30/2017; the samples arrived in good condition.

For all samples, the chain of custody (COC) identifies the sample dates and times, while the sample ID tags do not have sample dates and times recorded. The samples were logged in using the COC for all sample information.

VOLATILE ORGANIC COMPOUNDS

Samples SV-6-170329, SV-1-170329, SV-3-170329 and TB-170329 were analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 04/04/2017.

Samples SV-6-170329[6.06X], SV-1-170329[5X] and SV-3-170329[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|--------------------|--------|-----------|--------------------|---------|--------|
| 200-38009-1 | SV-6-170329 | | | | | |
| n-Butane | | 10 | | 3.0 | ppb v/v | TO-15 |
| n-Butane | | 25 | | 7.2 | ug/m3 | TO-15 |
| 1,3-Butadiene | | 1.3 | | 1.2 | ppb v/v | TO-15 |
| 1,3-Butadiene | | 3.0 | | 2.7 | ug/m3 | TO-15 |
| Acetone | | 140 | | 30 | ppb v/v | TO-15 |
| Acetone | | 330 | | 72 | ug/m3 | TO-15 |
| Carbon disulfide | | 6.5 | | 3.0 | ppb v/v | TO-15 |
| Carbon disulfide | | 20 | | 9.4 | ug/m3 | TO-15 |
| n-Hexane | | 2.2 | | 1.2 | ppb v/v | TO-15 |
| n-Hexane | | 7.7 | | 4.3 | ug/m3 | TO-15 |
| Methyl Ethyl Ketone | | 6.3 | | 3.0 | ppb v/v | TO-15 |
| Methyl Ethyl Ketone | | 19 | | 8.9 | ug/m3 | TO-15 |
| Benzene | | 1.3 | | 1.2 | ppb v/v | TO-15 |
| Benzene | | 4.1 | | 3.9 | ug/m3 | TO-15 |
| n-Heptane | | 2.2 | | 1.2 | ppb v/v | TO-15 |
| n-Heptane | | 9.1 | | 5.0 | ug/m3 | TO-15 |
| Toluene | | 6.9 | | 1.2 | ppb v/v | TO-15 |
| Toluene | | 26 | | 4.6 | ug/m3 | TO-15 |
| Ethylbenzene | | 2.9 | | 1.2 | ppb v/v | TO-15 |
| Ethylbenzene | | 13 | | 5.3 | ug/m3 | TO-15 |
| m,p-Xylene | | 12 | | 3.0 | ppb v/v | TO-15 |
| m,p-Xylene | | 53 | | 13 | ug/m3 | TO-15 |
| Xylene, o- | | 6.0 | | 1.2 | ppb v/v | TO-15 |
| Xylene, o- | | 26 | | 5.3 | ug/m3 | TO-15 |
| Xylene (total) | | 18 | | 4.2 | ppb v/v | TO-15 |
| Xylene (total) | | 78 | | 18 | ug/m3 | TO-15 |
| n-Propylbenzene | | 1.3 | | 1.2 | ppb v/v | TO-15 |
| n-Propylbenzene | | 6.2 | | 6.0 | ug/m3 | TO-15 |
| 4-Ethyltoluene | | 1.8 | | 1.2 | ppb v/v | TO-15 |
| 4-Ethyltoluene | | 8.9 | | 6.0 | ug/m3 | TO-15 |
| 1,3,5-Trimethylbenzene | | 2.4 | | 1.2 | ppb v/v | TO-15 |
| 1,3,5-Trimethylbenzene | | 12 | | 6.0 | ug/m3 | TO-15 |
| 1,2,4-Trimethylbenzene | | 8.0 | | 1.2 | ppb v/v | TO-15 |
| 1,2,4-Trimethylbenzene | | 39 | | 6.0 | ug/m3 | TO-15 |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|--------------------|--------|-----------|--------------------|---------|--------|
| 200-38009-2 | SV-1-170329 | | | | | |
| n-Butane | | 9.4 | | 2.5 | ppb v/v | TO-15 |
| n-Butane | | 22 | | 5.9 | ug/m3 | TO-15 |
| 1,3-Butadiene | | 2.4 | | 1.0 | ppb v/v | TO-15 |
| 1,3-Butadiene | | 5.3 | | 2.2 | ug/m3 | TO-15 |
| Acetone | | 120 | | 25 | ppb v/v | TO-15 |
| Acetone | | 270 | | 59 | ug/m3 | TO-15 |
| n-Hexane | | 3.3 | | 1.0 | ppb v/v | TO-15 |
| n-Hexane | | 12 | | 3.5 | ug/m3 | TO-15 |
| Methyl Ethyl Ketone | | 4.5 | | 2.5 | ppb v/v | TO-15 |
| Methyl Ethyl Ketone | | 13 | | 7.4 | ug/m3 | TO-15 |
| Benzene | | 4.5 | | 1.0 | ppb v/v | TO-15 |
| Benzene | | 14 | | 3.2 | ug/m3 | TO-15 |
| n-Heptane | | 3.1 | | 1.0 | ppb v/v | TO-15 |
| n-Heptane | | 13 | | 4.1 | ug/m3 | TO-15 |
| Toluene | | 12 | | 1.0 | ppb v/v | TO-15 |
| Toluene | | 47 | | 3.8 | ug/m3 | TO-15 |
| Ethylbenzene | | 5.0 | | 1.0 | ppb v/v | TO-15 |
| Ethylbenzene | | 22 | | 4.3 | ug/m3 | TO-15 |
| m,p-Xylene | | 17 | | 2.5 | ppb v/v | TO-15 |
| m,p-Xylene | | 74 | | 11 | ug/m3 | TO-15 |
| Xylene, o- | | 8.8 | | 1.0 | ppb v/v | TO-15 |
| Xylene, o- | | 38 | | 4.3 | ug/m3 | TO-15 |
| Xylene (total) | | 26 | | 3.5 | ppb v/v | TO-15 |
| Xylene (total) | | 110 | | 15 | ug/m3 | TO-15 |
| n-Propylbenzene | | 1.4 | | 1.0 | ppb v/v | TO-15 |
| n-Propylbenzene | | 7.0 | | 4.9 | ug/m3 | TO-15 |
| 4-Ethyltoluene | | 2.0 | | 1.0 | ppb v/v | TO-15 |
| 4-Ethyltoluene | | 10 | | 4.9 | ug/m3 | TO-15 |
| 1,3,5-Trimethylbenzene | | 2.9 | | 1.0 | ppb v/v | TO-15 |
| 1,3,5-Trimethylbenzene | | 14 | | 4.9 | ug/m3 | TO-15 |
| 1,2,4-Trimethylbenzene | | 9.1 | | 1.0 | ppb v/v | TO-15 |
| 1,2,4-Trimethylbenzene | | 45 | | 4.9 | ug/m3 | TO-15 |

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|--------------------|--------|-----------|--------------------|---------|--------|
| 200-38009-3 | SV-3-170329 | | | | | |
| n-Butane | | 22 | | 2.0 | ppb v/v | TO-15 |
| n-Butane | | 52 | | 4.8 | ug/m3 | TO-15 |
| 1,3-Butadiene | | 3.7 | | 0.80 | ppb v/v | TO-15 |
| 1,3-Butadiene | | 8.3 | | 1.8 | ug/m3 | TO-15 |
| Acetone | | 120 | | 20 | ppb v/v | TO-15 |
| Acetone | | 280 | | 48 | ug/m3 | TO-15 |
| Carbon disulfide | | 29 | | 2.0 | ppb v/v | TO-15 |
| Carbon disulfide | | 91 | | 6.2 | ug/m3 | TO-15 |
| n-Hexane | | 10 | | 0.80 | ppb v/v | TO-15 |
| n-Hexane | | 35 | | 2.8 | ug/m3 | TO-15 |
| Methyl Ethyl Ketone | | 8.3 | | 2.0 | ppb v/v | TO-15 |
| Methyl Ethyl Ketone | | 24 | | 5.9 | ug/m3 | TO-15 |
| Cyclohexane | | 2.4 | | 0.80 | ppb v/v | TO-15 |
| Cyclohexane | | 8.3 | | 2.8 | ug/m3 | TO-15 |
| 2,2,4-Trimethylpentane | | 2.3 | | 0.80 | ppb v/v | TO-15 |
| 2,2,4-Trimethylpentane | | 11 | | 3.7 | ug/m3 | TO-15 |
| Benzene | | 2.8 | | 0.80 | ppb v/v | TO-15 |
| Benzene | | 8.8 | | 2.6 | ug/m3 | TO-15 |
| n-Heptane | | 9.0 | | 0.80 | ppb v/v | TO-15 |
| n-Heptane | | 37 | | 3.3 | ug/m3 | TO-15 |
| Toluene | | 14 | | 0.80 | ppb v/v | TO-15 |
| Toluene | | 54 | | 3.0 | ug/m3 | TO-15 |
| Ethylbenzene | | 5.0 | | 0.80 | ppb v/v | TO-15 |
| Ethylbenzene | | 22 | | 3.5 | ug/m3 | TO-15 |
| m,p-Xylene | | 22 | | 2.0 | ppb v/v | TO-15 |
| m,p-Xylene | | 94 | | 8.7 | ug/m3 | TO-15 |
| Xylene, o- | | 9.7 | | 0.80 | ppb v/v | TO-15 |
| Xylene, o- | | 42 | | 3.5 | ug/m3 | TO-15 |
| Xylene (total) | | 32 | | 2.8 | ppb v/v | TO-15 |
| Xylene (total) | | 140 | | 12 | ug/m3 | TO-15 |
| n-Propylbenzene | | 2.3 | | 0.80 | ppb v/v | TO-15 |
| n-Propylbenzene | | 11 | | 3.9 | ug/m3 | TO-15 |
| 4-Ethyltoluene | | 3.6 | | 0.80 | ppb v/v | TO-15 |
| 4-Ethyltoluene | | 18 | | 3.9 | ug/m3 | TO-15 |
| 1,3,5-Trimethylbenzene | | 4.0 | | 0.80 | ppb v/v | TO-15 |
| 1,3,5-Trimethylbenzene | | 20 | | 3.9 | ug/m3 | TO-15 |
| 1,2,4-Trimethylbenzene | | 16 | | 0.80 | ppb v/v | TO-15 |
| 1,2,4-Trimethylbenzene | | 77 | | 3.9 | ug/m3 | TO-15 |

METHOD SUMMARY

Client: AKRF Inc

Job Number: 200-38009-1
Sdg Number: 200-38009-1

| Description | Lab Location | Method | Preparation Method |
|---|---------------------|---------------|---------------------------|
| Matrix: Air | | | |
| Volatile Organic Compounds in Ambient Air | TAL BUR | EPA TO-15 | |
| Collection via Summa Canister | TAL BUR | | Summa Canister |

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

| Method | Analyst | Analyst ID |
|---------------|-----------------------|-------------------|
| EPA TO-15 | Puangmalee, Kesanee 1 | K1P |

SAMPLE SUMMARY

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|----------------------|-------------------------|----------------------|------------------------------|-------------------------------|
| 200-38009-1 | SV-6-170329 | Air | 03/29/2017 1323 | 03/30/2017 1020 |
| 200-38009-2 | SV-1-170329 | Air | 03/29/2017 1308 | 03/30/2017 1020 |
| 200-38009-3 | SV-3-170329 | Air | 03/29/2017 1528 | 03/30/2017 1020 |
| 200-38009-4 | TB-170329 | Air | 03/29/2017 0000 | 03/30/2017 1020 |

SAMPLE RESULTS

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: SV-6-170329

Lab Sample ID: 200-38009-1

Date Sampled: 03/29/2017 1323

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115450 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24576_11.D |
| Dilution: | 6.06 | | | Initial Weight/Volume: | 33 mL |
| Analysis Date: | 04/04/2017 1949 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 1949 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|-------------------------------|------------------|-----------|------|
| Dichlorodifluoromethane | 3.0 | U | 3.0 |
| Freon 22 | 3.0 | U | 3.0 |
| 1,2-Dichlorotetrafluoroethane | 1.2 | U | 1.2 |
| Chloromethane | 3.0 | U | 3.0 |
| n-Butane | 10 | | 3.0 |
| Vinyl chloride | 0.24 | U | 0.24 |
| 1,3-Butadiene | 1.3 | | 1.2 |
| Bromomethane | 1.2 | U | 1.2 |
| Chloroethane | 3.0 | U | 3.0 |
| Bromoethene(Vinyl Bromide) | 1.2 | U | 1.2 |
| Trichlorofluoromethane | 1.2 | U | 1.2 |
| Freon TF | 1.2 | U | 1.2 |
| 1,1-Dichloroethene | 1.2 | U | 1.2 |
| Acetone | 140 | | 30 |
| Isopropyl alcohol | 30 | U | 30 |
| Carbon disulfide | 6.5 | | 3.0 |
| 3-Chloropropene | 3.0 | U | 3.0 |
| Methylene Chloride | 3.0 | U | 3.0 |
| tert-Butyl alcohol | 30 | U | 30 |
| Methyl tert-butyl ether | 1.2 | U | 1.2 |
| trans-1,2-Dichloroethene | 1.2 | U | 1.2 |
| n-Hexane | 2.2 | | 1.2 |
| 1,1-Dichloroethane | 1.2 | U | 1.2 |
| Methyl Ethyl Ketone | 6.3 | | 3.0 |
| cis-1,2-Dichloroethene | 1.2 | U | 1.2 |
| 1,2-Dichloroethene, Total | 2.4 | U | 2.4 |
| Chloroform | 1.2 | U | 1.2 |
| Tetrahydrofuran | 30 | U | 30 |
| 1,1,1-Trichloroethane | 1.2 | U | 1.2 |
| Cyclohexane | 1.2 | U | 1.2 |
| Carbon tetrachloride | 0.24 | U | 0.24 |
| 2,2,4-Trimethylpentane | 1.2 | U | 1.2 |
| Benzene | 1.3 | | 1.2 |
| 1,2-Dichloroethane | 1.2 | U | 1.2 |
| n-Heptane | 2.2 | | 1.2 |
| Trichloroethene | 0.24 | U | 0.24 |
| Methyl methacrylate | 3.0 | U | 3.0 |
| 1,2-Dichloropropane | 1.2 | U | 1.2 |
| 1,4-Dioxane | 30 | U | 30 |
| Bromodichloromethane | 1.2 | U | 1.2 |
| cis-1,3-Dichloropropene | 1.2 | U | 1.2 |
| methyl isobutyl ketone | 3.0 | U | 3.0 |
| Toluene | 6.9 | | 1.2 |
| trans-1,3-Dichloropropene | 1.2 | U | 1.2 |
| 1,1,2-Trichloroethane | 1.2 | U | 1.2 |
| Tetrachloroethene | 1.2 | U | 1.2 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: SV-6-170329

Lab Sample ID: 200-38009-1

Date Sampled: 03/29/2017 1323

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115450 | Instrument ID: CHX.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24576_11.D |
| Dilution: 6.06 | | Initial Weight/Volume: 33 mL |
| Analysis Date: 04/04/2017 1949 | | Final Weight/Volume: 200 mL |
| Prep Date: 04/04/2017 1949 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|----------------------------------|------------------|-----------|-----|
| Methyl Butyl Ketone (2-Hexanone) | 3.0 | U | 3.0 |
| Dibromochloromethane | 1.2 | U | 1.2 |
| 1,2-Dibromoethane | 1.2 | U | 1.2 |
| Chlorobenzene | 1.2 | U | 1.2 |
| Ethylbenzene | 2.9 | | 1.2 |
| m,p-Xylene | 12 | | 3.0 |
| Xylene, o- | 6.0 | | 1.2 |
| Xylene (total) | 18 | | 4.2 |
| Styrene | 1.2 | U | 1.2 |
| Bromoform | 1.2 | U | 1.2 |
| Cumene | 1.2 | U | 1.2 |
| 1,1,2,2-Tetrachloroethane | 1.2 | U | 1.2 |
| n-Propylbenzene | 1.3 | | 1.2 |
| 4-Ethyltoluene | 1.8 | | 1.2 |
| 1,3,5-Trimethylbenzene | 2.4 | | 1.2 |
| 2-Chlorotoluene | 1.2 | U | 1.2 |
| tert-Butylbenzene | 1.2 | U | 1.2 |
| 1,2,4-Trimethylbenzene | 8.0 | | 1.2 |
| sec-Butylbenzene | 1.2 | U | 1.2 |
| 4-Isopropyltoluene | 1.2 | U | 1.2 |
| 1,3-Dichlorobenzene | 1.2 | U | 1.2 |
| 1,4-Dichlorobenzene | 1.2 | U | 1.2 |
| Benzyl chloride | 1.2 | U | 1.2 |
| n-Butylbenzene | 1.2 | U | 1.2 |
| 1,2-Dichlorobenzene | 1.2 | U | 1.2 |
| 1,2,4-Trichlorobenzene | 3.0 | U | 3.0 |
| Hexachlorobutadiene | 1.2 | U | 1.2 |
| Naphthalene | 3.0 | U | 3.0 |

| Analyte | Result (ug/m3) | Qualifier | RL |
|-------------------------------|----------------|-----------|------|
| Dichlorodifluoromethane | 15 | U | 15 |
| Freon 22 | 11 | U | 11 |
| 1,2-Dichlorotetrafluoroethane | 8.5 | U | 8.5 |
| Chloromethane | 6.3 | U | 6.3 |
| n-Butane | 25 | | 7.2 |
| Vinyl chloride | 0.62 | U | 0.62 |
| 1,3-Butadiene | 3.0 | | 2.7 |
| Bromomethane | 4.7 | U | 4.7 |
| Chloroethane | 8.0 | U | 8.0 |
| Bromoethene(Vinyl Bromide) | 5.3 | U | 5.3 |
| Trichlorofluoromethane | 6.8 | U | 6.8 |
| Freon TF | 9.3 | U | 9.3 |
| 1,1-Dichloroethene | 4.8 | U | 4.8 |
| Acetone | 330 | | 72 |
| Isopropyl alcohol | 74 | U | 74 |
| Carbon disulfide | 20 | | 9.4 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: SV-6-170329

Lab Sample ID: 200-38009-1

Date Sampled: 03/29/2017 1323

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115450 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24576_11.D |
| Dilution: | 6.06 | | | Initial Weight/Volume: | 33 mL |
| Analysis Date: | 04/04/2017 1949 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 1949 | | | Injection Volume: | 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|----------------------------------|----------------|-----------|-----|
| 3-Chloropropene | 9.5 | U | 9.5 |
| Methylene Chloride | 11 | U | 11 |
| tert-Butyl alcohol | 92 | U | 92 |
| Methyl tert-butyl ether | 4.4 | U | 4.4 |
| trans-1,2-Dichloroethene | 4.8 | U | 4.8 |
| n-Hexane | 7.7 | | 4.3 |
| 1,1-Dichloroethane | 4.9 | U | 4.9 |
| Methyl Ethyl Ketone | 19 | | 8.9 |
| cis-1,2-Dichloroethene | 4.8 | U | 4.8 |
| 1,2-Dichloroethene, Total | 9.6 | U | 9.6 |
| Chloroform | 5.9 | U | 5.9 |
| Tetrahydrofuran | 89 | U | 89 |
| 1,1,1-Trichloroethane | 6.6 | U | 6.6 |
| Cyclohexane | 4.2 | U | 4.2 |
| Carbon tetrachloride | 1.5 | U | 1.5 |
| 2,2,4-Trimethylpentane | 5.7 | U | 5.7 |
| Benzene | 4.1 | | 3.9 |
| 1,2-Dichloroethane | 4.9 | U | 4.9 |
| n-Heptane | 9.1 | | 5.0 |
| Trichloroethene | 1.3 | U | 1.3 |
| Methyl methacrylate | 12 | U | 12 |
| 1,2-Dichloropropane | 5.6 | U | 5.6 |
| 1,4-Dioxane | 110 | U | 110 |
| Bromodichloromethane | 8.1 | U | 8.1 |
| cis-1,3-Dichloropropene | 5.5 | U | 5.5 |
| methyl isobutyl ketone | 12 | U | 12 |
| Toluene | 26 | | 4.6 |
| trans-1,3-Dichloropropene | 5.5 | U | 5.5 |
| 1,1,2-Trichloroethane | 6.6 | U | 6.6 |
| Tetrachloroethene | 8.2 | U | 8.2 |
| Methyl Butyl Ketone (2-Hexanone) | 12 | U | 12 |
| Dibromochloromethane | 10 | U | 10 |
| 1,2-Dibromoethane | 9.3 | U | 9.3 |
| Chlorobenzene | 5.6 | U | 5.6 |
| Ethylbenzene | 13 | | 5.3 |
| m,p-Xylene | 53 | | 13 |
| Xylene, o- | 26 | | 5.3 |
| Xylene (total) | 78 | | 18 |
| Styrene | 5.2 | U | 5.2 |
| Bromoform | 13 | U | 13 |
| Cumene | 6.0 | U | 6.0 |
| 1,1,2,2-Tetrachloroethane | 8.3 | U | 8.3 |
| n-Propylbenzene | 6.2 | | 6.0 |
| 4-Ethyltoluene | 8.9 | | 6.0 |
| 1,3,5-Trimethylbenzene | 12 | | 6.0 |
| 2-Chlorotoluene | 6.3 | U | 6.3 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: SV-6-170329

Lab Sample ID: 200-38009-1

Date Sampled: 03/29/2017 1323

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115450 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24576_11.D |
| Dilution: | 6.06 | | | Initial Weight/Volume: | 33 mL |
| Analysis Date: | 04/04/2017 1949 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 1949 | | | Injection Volume: | 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|------------------------|----------------|-----------|-----|
| tert-Butylbenzene | 6.7 | U | 6.7 |
| 1,2,4-Trimethylbenzene | 39 | | 6.0 |
| sec-Butylbenzene | 6.7 | U | 6.7 |
| 4-Isopropyltoluene | 6.7 | U | 6.7 |
| 1,3-Dichlorobenzene | 7.3 | U | 7.3 |
| 1,4-Dichlorobenzene | 7.3 | U | 7.3 |
| Benzyl chloride | 6.3 | U | 6.3 |
| n-Butylbenzene | 6.7 | U | 6.7 |
| 1,2-Dichlorobenzene | 7.3 | U | 7.3 |
| 1,2,4-Trichlorobenzene | 22 | U | 22 |
| Hexachlorobutadiene | 13 | U | 13 |
| Naphthalene | 16 | U | 16 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: SV-6-170329

Lab Sample ID: 200-38009-1

Date Sampled: 03/29/2017 1323

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15

Analysis Batch: 200-115450

Instrument ID: CHX.i

Prep Method: Summa Canister

Prep Batch: N/A

Lab File ID: 24576_11.D

Dilution: 6.06

Initial Weight/Volume: 33 mL

Analysis Date: 04/04/2017 1949

Final Weight/Volume: 200 mL

Prep Date: 04/04/2017 1949

Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 4

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------|-------|-----------------------|-----------|
| 115-07-1 | Propene | 3.06 | 17 | J N |
| | Unknown | 4.05 | 6.6 | J |
| | Unknown | 23.39 | 8.2 | J |
| | Unknown | 24.05 | 7.0 | J |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: SV-1-170329

Lab Sample ID: 200-38009-2

Date Sampled: 03/29/2017 1308

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115450 | Instrument ID: CHX.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24576_12.D |
| Dilution: 5.0 | | Initial Weight/Volume: 40 mL |
| Analysis Date: 04/04/2017 2039 | | Final Weight/Volume: 200 mL |
| Prep Date: 04/04/2017 2039 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|-------------------------------|------------------|-----------|------|
| Dichlorodifluoromethane | 2.5 | U | 2.5 |
| Freon 22 | 2.5 | U | 2.5 |
| 1,2-Dichlorotetrafluoroethane | 1.0 | U | 1.0 |
| Chloromethane | 2.5 | U | 2.5 |
| n-Butane | 9.4 | | 2.5 |
| Vinyl chloride | 0.20 | U | 0.20 |
| 1,3-Butadiene | 2.4 | | 1.0 |
| Bromomethane | 1.0 | U | 1.0 |
| Chloroethane | 2.5 | U | 2.5 |
| Bromoethene(Vinyl Bromide) | 1.0 | U | 1.0 |
| Trichlorofluoromethane | 1.0 | U | 1.0 |
| Freon TF | 1.0 | U | 1.0 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 |
| Acetone | 120 | | 25 |
| Isopropyl alcohol | 25 | U | 25 |
| Carbon disulfide | 2.5 | U | 2.5 |
| 3-Chloropropene | 2.5 | U | 2.5 |
| Methylene Chloride | 2.5 | U | 2.5 |
| tert-Butyl alcohol | 25 | U | 25 |
| Methyl tert-butyl ether | 1.0 | U | 1.0 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 |
| n-Hexane | 3.3 | | 1.0 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 |
| Methyl Ethyl Ketone | 4.5 | | 2.5 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 |
| 1,2-Dichloroethene, Total | 2.0 | U | 2.0 |
| Chloroform | 1.0 | U | 1.0 |
| Tetrahydrofuran | 25 | U | 25 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 |
| Cyclohexane | 1.0 | U | 1.0 |
| Carbon tetrachloride | 0.20 | U | 0.20 |
| 2,2,4-Trimethylpentane | 1.0 | U | 1.0 |
| Benzene | 4.5 | | 1.0 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 |
| n-Heptane | 3.1 | | 1.0 |
| Trichloroethene | 0.20 | U | 0.20 |
| Methyl methacrylate | 2.5 | U | 2.5 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 |
| 1,4-Dioxane | 25 | U | 25 |
| Bromodichloromethane | 1.0 | U | 1.0 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 |
| methyl isobutyl ketone | 2.5 | U | 2.5 |
| Toluene | 12 | | 1.0 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 |
| Tetrachloroethene | 1.0 | U | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: SV-1-170329

Lab Sample ID: 200-38009-2

Date Sampled: 03/29/2017 1308

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115450 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24576_12.D |
| Dilution: | 5.0 | | | Initial Weight/Volume: | 40 mL |
| Analysis Date: | 04/04/2017 2039 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 2039 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|----------------------------------|------------------|-----------|-----|
| Methyl Butyl Ketone (2-Hexanone) | 2.5 | U | 2.5 |
| Dibromochloromethane | 1.0 | U | 1.0 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 |
| Chlorobenzene | 1.0 | U | 1.0 |
| Ethylbenzene | 5.0 | | 1.0 |
| m,p-Xylene | 17 | | 2.5 |
| Xylene, o- | 8.8 | | 1.0 |
| Xylene (total) | 26 | | 3.5 |
| Styrene | 1.0 | U | 1.0 |
| Bromoform | 1.0 | U | 1.0 |
| Cumene | 1.0 | U | 1.0 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 |
| n-Propylbenzene | 1.4 | | 1.0 |
| 4-Ethyltoluene | 2.0 | | 1.0 |
| 1,3,5-Trimethylbenzene | 2.9 | | 1.0 |
| 2-Chlorotoluene | 1.0 | U | 1.0 |
| tert-Butylbenzene | 1.0 | U | 1.0 |
| 1,2,4-Trimethylbenzene | 9.1 | | 1.0 |
| sec-Butylbenzene | 1.0 | U | 1.0 |
| 4-Isopropyltoluene | 1.0 | U | 1.0 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 |
| Benzyl chloride | 1.0 | U | 1.0 |
| n-Butylbenzene | 1.0 | U | 1.0 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 |
| 1,2,4-Trichlorobenzene | 2.5 | U | 2.5 |
| Hexachlorobutadiene | 1.0 | U | 1.0 |
| Naphthalene | 2.5 | U | 2.5 |

| Analyte | Result (ug/m3) | Qualifier | RL |
|-------------------------------|----------------|-----------|------|
| Dichlorodifluoromethane | 12 | U | 12 |
| Freon 22 | 8.8 | U | 8.8 |
| 1,2-Dichlorotetrafluoroethane | 7.0 | U | 7.0 |
| Chloromethane | 5.2 | U | 5.2 |
| n-Butane | 22 | | 5.9 |
| Vinyl chloride | 0.51 | U | 0.51 |
| 1,3-Butadiene | 5.3 | | 2.2 |
| Bromomethane | 3.9 | U | 3.9 |
| Chloroethane | 6.6 | U | 6.6 |
| Bromoethene(Vinyl Bromide) | 4.4 | U | 4.4 |
| Trichlorofluoromethane | 5.6 | U | 5.6 |
| Freon TF | 7.7 | U | 7.7 |
| 1,1-Dichloroethene | 4.0 | U | 4.0 |
| Acetone | 270 | | 59 |
| Isopropyl alcohol | 61 | U | 61 |
| Carbon disulfide | 7.8 | U | 7.8 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: SV-1-170329

Lab Sample ID: 200-38009-2

Date Sampled: 03/29/2017 1308

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115450 | Instrument ID: CHX.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24576_12.D |
| Dilution: 5.0 | | Initial Weight/Volume: 40 mL |
| Analysis Date: 04/04/2017 2039 | | Final Weight/Volume: 200 mL |
| Prep Date: 04/04/2017 2039 | | Injection Volume: 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|----------------------------------|----------------|-----------|-----|
| 3-Chloropropene | 7.8 | U | 7.8 |
| Methylene Chloride | 8.7 | U | 8.7 |
| tert-Butyl alcohol | 76 | U | 76 |
| Methyl tert-butyl ether | 3.6 | U | 3.6 |
| trans-1,2-Dichloroethene | 4.0 | U | 4.0 |
| n-Hexane | 12 | | 3.5 |
| 1,1-Dichloroethane | 4.0 | U | 4.0 |
| Methyl Ethyl Ketone | 13 | | 7.4 |
| cis-1,2-Dichloroethene | 4.0 | U | 4.0 |
| 1,2-Dichloroethene, Total | 7.9 | U | 7.9 |
| Chloroform | 4.9 | U | 4.9 |
| Tetrahydrofuran | 74 | U | 74 |
| 1,1,1-Trichloroethane | 5.5 | U | 5.5 |
| Cyclohexane | 3.4 | U | 3.4 |
| Carbon tetrachloride | 1.3 | U | 1.3 |
| 2,2,4-Trimethylpentane | 4.7 | U | 4.7 |
| Benzene | 14 | | 3.2 |
| 1,2-Dichloroethane | 4.0 | U | 4.0 |
| n-Heptane | 13 | | 4.1 |
| Trichloroethene | 1.1 | U | 1.1 |
| Methyl methacrylate | 10 | U | 10 |
| 1,2-Dichloropropane | 4.6 | U | 4.6 |
| 1,4-Dioxane | 90 | U | 90 |
| Bromodichloromethane | 6.7 | U | 6.7 |
| cis-1,3-Dichloropropene | 4.5 | U | 4.5 |
| methyl isobutyl ketone | 10 | U | 10 |
| Toluene | 47 | | 3.8 |
| trans-1,3-Dichloropropene | 4.5 | U | 4.5 |
| 1,1,2-Trichloroethane | 5.5 | U | 5.5 |
| Tetrachloroethene | 6.8 | U | 6.8 |
| Methyl Butyl Ketone (2-Hexanone) | 10 | U | 10 |
| Dibromochloromethane | 8.5 | U | 8.5 |
| 1,2-Dibromoethane | 7.7 | U | 7.7 |
| Chlorobenzene | 4.6 | U | 4.6 |
| Ethylbenzene | 22 | | 4.3 |
| m,p-Xylene | 74 | | 11 |
| Xylene, o- | 38 | | 4.3 |
| Xylene (total) | 110 | | 15 |
| Styrene | 4.3 | U | 4.3 |
| Bromoform | 10 | U | 10 |
| Cumene | 4.9 | U | 4.9 |
| 1,1,2,2-Tetrachloroethane | 6.9 | U | 6.9 |
| n-Propylbenzene | 7.0 | | 4.9 |
| 4-Ethyltoluene | 10 | | 4.9 |
| 1,3,5-Trimethylbenzene | 14 | | 4.9 |
| 2-Chlorotoluene | 5.2 | U | 5.2 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: SV-1-170329

Lab Sample ID: 200-38009-2

Date Sampled: 03/29/2017 1308

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115450 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24576_12.D |
| Dilution: | 5.0 | | | Initial Weight/Volume: | 40 mL |
| Analysis Date: | 04/04/2017 2039 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 2039 | | | Injection Volume: | 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|------------------------|----------------|-----------|-----|
| tert-Butylbenzene | 5.5 | U | 5.5 |
| 1,2,4-Trimethylbenzene | 45 | | 4.9 |
| sec-Butylbenzene | 5.5 | U | 5.5 |
| 4-Isopropyltoluene | 5.5 | U | 5.5 |
| 1,3-Dichlorobenzene | 6.0 | U | 6.0 |
| 1,4-Dichlorobenzene | 6.0 | U | 6.0 |
| Benzyl chloride | 5.2 | U | 5.2 |
| n-Butylbenzene | 5.5 | U | 5.5 |
| 1,2-Dichlorobenzene | 6.0 | U | 6.0 |
| 1,2,4-Trichlorobenzene | 19 | U | 19 |
| Hexachlorobutadiene | 11 | U | 11 |
| Naphthalene | 13 | U | 13 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: SV-1-170329

Lab Sample ID: 200-38009-2

Date Sampled: 03/29/2017 1308

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115450 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24576_12.D |
| Dilution: | 5.0 | | | Initial Weight/Volume: | 40 mL |
| Analysis Date: | 04/04/2017 2039 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 2039 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 4

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|--|-------|-----------------------|-----------|
| | Unknown | 4.05 | 7.0 | J |
| 66-25-1 | Hexanal | 17.37 | 5.3 | J N |
| 7785-26-4 | (1S)-2,6,6-Trimethylbicyclo[3.1.1]hept-2-ene | 20.69 | 16 | J N |
| | Unknown | 24.05 | 5.3 | J |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: SV-3-170329

Lab Sample ID: 200-38009-3

Date Sampled: 03/29/2017 1528

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115450 | Instrument ID: CHX.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24576_13.D |
| Dilution: 4.0 | | Initial Weight/Volume: 50 mL |
| Analysis Date: 04/04/2017 2130 | | Final Weight/Volume: 200 mL |
| Prep Date: 04/04/2017 2130 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|-------------------------------|------------------|-----------|------|
| Dichlorodifluoromethane | 2.0 | U | 2.0 |
| Freon 22 | 2.0 | U | 2.0 |
| 1,2-Dichlorotetrafluoroethane | 0.80 | U | 0.80 |
| Chloromethane | 2.0 | U | 2.0 |
| n-Butane | 22 | | 2.0 |
| Vinyl chloride | 0.16 | U | 0.16 |
| 1,3-Butadiene | 3.7 | | 0.80 |
| Bromomethane | 0.80 | U | 0.80 |
| Chloroethane | 2.0 | U | 2.0 |
| Bromoethene(Vinyl Bromide) | 0.80 | U | 0.80 |
| Trichlorofluoromethane | 0.80 | U | 0.80 |
| Freon TF | 0.80 | U | 0.80 |
| 1,1-Dichloroethene | 0.80 | U | 0.80 |
| Acetone | 120 | | 20 |
| Isopropyl alcohol | 20 | U | 20 |
| Carbon disulfide | 29 | | 2.0 |
| 3-Chloropropene | 2.0 | U | 2.0 |
| Methylene Chloride | 2.0 | U | 2.0 |
| tert-Butyl alcohol | 20 | U | 20 |
| Methyl tert-butyl ether | 0.80 | U | 0.80 |
| trans-1,2-Dichloroethene | 0.80 | U | 0.80 |
| n-Hexane | 10 | | 0.80 |
| 1,1-Dichloroethane | 0.80 | U | 0.80 |
| Methyl Ethyl Ketone | 8.3 | | 2.0 |
| cis-1,2-Dichloroethene | 0.80 | U | 0.80 |
| 1,2-Dichloroethene, Total | 1.6 | U | 1.6 |
| Chloroform | 0.80 | U | 0.80 |
| Tetrahydrofuran | 20 | U | 20 |
| 1,1,1-Trichloroethane | 0.80 | U | 0.80 |
| Cyclohexane | 2.4 | | 0.80 |
| Carbon tetrachloride | 0.16 | U | 0.16 |
| 2,2,4-Trimethylpentane | 2.3 | | 0.80 |
| Benzene | 2.8 | | 0.80 |
| 1,2-Dichloroethane | 0.80 | U | 0.80 |
| n-Heptane | 9.0 | | 0.80 |
| Trichloroethene | 0.16 | U | 0.16 |
| Methyl methacrylate | 2.0 | U | 2.0 |
| 1,2-Dichloropropane | 0.80 | U | 0.80 |
| 1,4-Dioxane | 20 | U | 20 |
| Bromodichloromethane | 0.80 | U | 0.80 |
| cis-1,3-Dichloropropene | 0.80 | U | 0.80 |
| methyl isobutyl ketone | 2.0 | U | 2.0 |
| Toluene | 14 | | 0.80 |
| trans-1,3-Dichloropropene | 0.80 | U | 0.80 |
| 1,1,2-Trichloroethane | 0.80 | U | 0.80 |
| Tetrachloroethene | 0.80 | U | 0.80 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: SV-3-170329

Lab Sample ID: 200-38009-3

Date Sampled: 03/29/2017 1528

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115450 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24576_13.D |
| Dilution: | 4.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 04/04/2017 2130 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 2130 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|----------------------------------|------------------|-----------|------|
| Methyl Butyl Ketone (2-Hexanone) | 2.0 | U | 2.0 |
| Dibromochloromethane | 0.80 | U | 0.80 |
| 1,2-Dibromoethane | 0.80 | U | 0.80 |
| Chlorobenzene | 0.80 | U | 0.80 |
| Ethylbenzene | 5.0 | | 0.80 |
| m,p-Xylene | 22 | | 2.0 |
| Xylene, o- | 9.7 | | 0.80 |
| Xylene (total) | 32 | | 2.8 |
| Styrene | 0.80 | U | 0.80 |
| Bromoform | 0.80 | U | 0.80 |
| Cumene | 0.80 | U | 0.80 |
| 1,1,2,2-Tetrachloroethane | 0.80 | U | 0.80 |
| n-Propylbenzene | 2.3 | | 0.80 |
| 4-Ethyltoluene | 3.6 | | 0.80 |
| 1,3,5-Trimethylbenzene | 4.0 | | 0.80 |
| 2-Chlorotoluene | 0.80 | U | 0.80 |
| tert-Butylbenzene | 0.80 | U | 0.80 |
| 1,2,4-Trimethylbenzene | 16 | | 0.80 |
| sec-Butylbenzene | 0.80 | U | 0.80 |
| 4-Isopropyltoluene | 0.80 | U | 0.80 |
| 1,3-Dichlorobenzene | 0.80 | U | 0.80 |
| 1,4-Dichlorobenzene | 0.80 | U | 0.80 |
| Benzyl chloride | 0.80 | U | 0.80 |
| n-Butylbenzene | 0.80 | U | 0.80 |
| 1,2-Dichlorobenzene | 0.80 | U | 0.80 |
| 1,2,4-Trichlorobenzene | 2.0 | U | 2.0 |
| Hexachlorobutadiene | 0.80 | U | 0.80 |
| Naphthalene | 2.0 | U | 2.0 |

| Analyte | Result (ug/m3) | Qualifier | RL |
|-------------------------------|----------------|-----------|------|
| Dichlorodifluoromethane | 9.9 | U | 9.9 |
| Freon 22 | 7.1 | U | 7.1 |
| 1,2-Dichlorotetrafluoroethane | 5.6 | U | 5.6 |
| Chloromethane | 4.1 | U | 4.1 |
| n-Butane | 52 | | 4.8 |
| Vinyl chloride | 0.41 | U | 0.41 |
| 1,3-Butadiene | 8.3 | | 1.8 |
| Bromomethane | 3.1 | U | 3.1 |
| Chloroethane | 5.3 | U | 5.3 |
| Bromoethene(Vinyl Bromide) | 3.5 | U | 3.5 |
| Trichlorofluoromethane | 4.5 | U | 4.5 |
| Freon TF | 6.1 | U | 6.1 |
| 1,1-Dichloroethene | 3.2 | U | 3.2 |
| Acetone | 280 | | 48 |
| Isopropyl alcohol | 49 | U | 49 |
| Carbon disulfide | 91 | | 6.2 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: SV-3-170329

Lab Sample ID: 200-38009-3

Date Sampled: 03/29/2017 1528

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115450 | Instrument ID: CHX.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24576_13.D |
| Dilution: 4.0 | | Initial Weight/Volume: 50 mL |
| Analysis Date: 04/04/2017 2130 | | Final Weight/Volume: 200 mL |
| Prep Date: 04/04/2017 2130 | | Injection Volume: 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|----------------------------------|----------------|-----------|------|
| 3-Chloropropene | 6.3 | U | 6.3 |
| Methylene Chloride | 6.9 | U | 6.9 |
| tert-Butyl alcohol | 61 | U | 61 |
| Methyl tert-butyl ether | 2.9 | U | 2.9 |
| trans-1,2-Dichloroethene | 3.2 | U | 3.2 |
| n-Hexane | 35 | | 2.8 |
| 1,1-Dichloroethane | 3.2 | U | 3.2 |
| Methyl Ethyl Ketone | 24 | | 5.9 |
| cis-1,2-Dichloroethene | 3.2 | U | 3.2 |
| 1,2-Dichloroethene, Total | 6.3 | U | 6.3 |
| Chloroform | 3.9 | U | 3.9 |
| Tetrahydrofuran | 59 | U | 59 |
| 1,1,1-Trichloroethane | 4.4 | U | 4.4 |
| Cyclohexane | 8.3 | | 2.8 |
| Carbon tetrachloride | 1.0 | U | 1.0 |
| 2,2,4-Trimethylpentane | 11 | | 3.7 |
| Benzene | 8.8 | | 2.6 |
| 1,2-Dichloroethane | 3.2 | U | 3.2 |
| n-Heptane | 37 | | 3.3 |
| Trichloroethene | 0.86 | U | 0.86 |
| Methyl methacrylate | 8.2 | U | 8.2 |
| 1,2-Dichloropropane | 3.7 | U | 3.7 |
| 1,4-Dioxane | 72 | U | 72 |
| Bromodichloromethane | 5.4 | U | 5.4 |
| cis-1,3-Dichloropropene | 3.6 | U | 3.6 |
| methyl isobutyl ketone | 8.2 | U | 8.2 |
| Toluene | 54 | | 3.0 |
| trans-1,3-Dichloropropene | 3.6 | U | 3.6 |
| 1,1,2-Trichloroethane | 4.4 | U | 4.4 |
| Tetrachloroethene | 5.4 | U | 5.4 |
| Methyl Butyl Ketone (2-Hexanone) | 8.2 | U | 8.2 |
| Dibromochloromethane | 6.8 | U | 6.8 |
| 1,2-Dibromoethane | 6.1 | U | 6.1 |
| Chlorobenzene | 3.7 | U | 3.7 |
| Ethylbenzene | 22 | | 3.5 |
| m,p-Xylene | 94 | | 8.7 |
| Xylene, o- | 42 | | 3.5 |
| Xylene (total) | 140 | | 12 |
| Styrene | 3.4 | U | 3.4 |
| Bromoform | 8.3 | U | 8.3 |
| Cumene | 3.9 | U | 3.9 |
| 1,1,2,2-Tetrachloroethane | 5.5 | U | 5.5 |
| n-Propylbenzene | 11 | | 3.9 |
| 4-Ethyltoluene | 18 | | 3.9 |
| 1,3,5-Trimethylbenzene | 20 | | 3.9 |
| 2-Chlorotoluene | 4.1 | U | 4.1 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: SV-3-170329

Lab Sample ID: 200-38009-3

Date Sampled: 03/29/2017 1528

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115450 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24576_13.D |
| Dilution: | 4.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 04/04/2017 2130 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 2130 | | | Injection Volume: | 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|------------------------|----------------|-----------|-----|
| tert-Butylbenzene | 4.4 | U | 4.4 |
| 1,2,4-Trimethylbenzene | 77 | | 3.9 |
| sec-Butylbenzene | 4.4 | U | 4.4 |
| 4-Isopropyltoluene | 4.4 | U | 4.4 |
| 1,3-Dichlorobenzene | 4.8 | U | 4.8 |
| 1,4-Dichlorobenzene | 4.8 | U | 4.8 |
| Benzyl chloride | 4.1 | U | 4.1 |
| n-Butylbenzene | 4.4 | U | 4.4 |
| 1,2-Dichlorobenzene | 4.8 | U | 4.8 |
| 1,2,4-Trichlorobenzene | 15 | U | 15 |
| Hexachlorobutadiene | 8.5 | U | 8.5 |
| Naphthalene | 10 | U | 10 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: SV-3-170329

Lab Sample ID: 200-38009-3

Date Sampled: 03/29/2017 1528

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115450 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24576_13.D |
| Dilution: | 4.0 | | | Initial Weight/Volume: | 50 mL |
| Analysis Date: | 04/04/2017 2130 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 2130 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 10

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------|-------|-----------------------|-----------|
| 115-07-1 | Propene | 3.06 | 7.3 | J N |
| | Unknown | 4.04 | 9.0 | J |
| 78-78-4 | Butane, 2-methyl- | 4.74 | 21 | J N |
| 109-66-0 | Pentane | 5.27 | 15 | J N |
| | Unknown | 5.75 | 7.4 | J |
| 107-83-5 | Pentane, 2-methyl- | 7.10 | 9.7 | J N |
| 589-34-4 | Hexane, 3-methyl- | 10.87 | 8.3 | J N |
| 71-36-3 | 1-Butanol | 12.86 | 13 | J N |
| 526-73-8 | Benzene, 1,2,3-trimethyl- | 23.17 | 6.7 | J N |
| | Unknown | 24.05 | 12 | J |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: TB-170329

Lab Sample ID: 200-38009-4

Date Sampled: 03/29/2017 0000

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115389 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24548_26.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 04/04/2017 0830 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 0830 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|-------------------------------|------------------|-----------|-------|
| Dichlorodifluoromethane | 0.50 | U | 0.50 |
| Freon 22 | 0.50 | U | 0.50 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | U | 0.20 |
| Chloromethane | 0.50 | U | 0.50 |
| n-Butane | 0.50 | U | 0.50 |
| Vinyl chloride | 0.040 | U | 0.040 |
| 1,3-Butadiene | 0.20 | U | 0.20 |
| Bromomethane | 0.20 | U | 0.20 |
| Chloroethane | 0.50 | U | 0.50 |
| Bromoethene(Vinyl Bromide) | 0.20 | U | 0.20 |
| Trichlorofluoromethane | 0.20 | U | 0.20 |
| Freon TF | 0.20 | U | 0.20 |
| 1,1-Dichloroethene | 0.20 | U | 0.20 |
| Acetone | 5.0 | U | 5.0 |
| Isopropyl alcohol | 5.0 | U | 5.0 |
| Carbon disulfide | 0.50 | U | 0.50 |
| 3-Chloropropene | 0.50 | U | 0.50 |
| Methylene Chloride | 0.50 | U | 0.50 |
| tert-Butyl alcohol | 5.0 | U | 5.0 |
| Methyl tert-butyl ether | 0.20 | U | 0.20 |
| trans-1,2-Dichloroethene | 0.20 | U | 0.20 |
| n-Hexane | 0.20 | U | 0.20 |
| 1,1-Dichloroethane | 0.20 | U | 0.20 |
| Methyl Ethyl Ketone | 0.50 | U | 0.50 |
| cis-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 1,2-Dichloroethene, Total | 0.40 | U | 0.40 |
| Chloroform | 0.20 | U | 0.20 |
| Tetrahydrofuran | 5.0 | U | 5.0 |
| 1,1,1-Trichloroethane | 0.20 | U | 0.20 |
| Cyclohexane | 0.20 | U | 0.20 |
| Carbon tetrachloride | 0.040 | U | 0.040 |
| 2,2,4-Trimethylpentane | 0.20 | U | 0.20 |
| Benzene | 0.20 | U | 0.20 |
| 1,2-Dichloroethane | 0.20 | U | 0.20 |
| n-Heptane | 0.20 | U | 0.20 |
| Trichloroethene | 0.040 | U | 0.040 |
| Methyl methacrylate | 0.50 | U | 0.50 |
| 1,2-Dichloropropane | 0.20 | U | 0.20 |
| 1,4-Dioxane | 5.0 | U | 5.0 |
| Bromodichloromethane | 0.20 | U | 0.20 |
| cis-1,3-Dichloropropene | 0.20 | U | 0.20 |
| methyl isobutyl ketone | 0.50 | U | 0.50 |
| Toluene | 0.20 | U | 0.20 |
| trans-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 1,1,2-Trichloroethane | 0.20 | U | 0.20 |
| Tetrachloroethene | 0.20 | U | 0.20 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: TB-170329

Lab Sample ID: 200-38009-4

Date Sampled: 03/29/2017 0000

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115389 | Instrument ID: CHX.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24548_26.D |
| Dilution: 1.0 | | Initial Weight/Volume: 200 mL |
| Analysis Date: 04/04/2017 0830 | | Final Weight/Volume: 200 mL |
| Prep Date: 04/04/2017 0830 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|----------------------------------|------------------|-----------|------|
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | U | 0.50 |
| Dibromochloromethane | 0.20 | U | 0.20 |
| 1,2-Dibromoethane | 0.20 | U | 0.20 |
| Chlorobenzene | 0.20 | U | 0.20 |
| Ethylbenzene | 0.20 | U | 0.20 |
| m,p-Xylene | 0.50 | U | 0.50 |
| Xylene, o- | 0.20 | U | 0.20 |
| Xylene (total) | 0.70 | U | 0.70 |
| Styrene | 0.20 | U | 0.20 |
| Bromoform | 0.20 | U | 0.20 |
| Cumene | 0.20 | U | 0.20 |
| 1,1,2,2-Tetrachloroethane | 0.20 | U | 0.20 |
| n-Propylbenzene | 0.20 | U | 0.20 |
| 4-Ethyltoluene | 0.20 | U | 0.20 |
| 1,3,5-Trimethylbenzene | 0.20 | U | 0.20 |
| 2-Chlorotoluene | 0.20 | U | 0.20 |
| tert-Butylbenzene | 0.20 | U | 0.20 |
| 1,2,4-Trimethylbenzene | 0.20 | U | 0.20 |
| sec-Butylbenzene | 0.20 | U | 0.20 |
| 4-Isopropyltoluene | 0.20 | U | 0.20 |
| 1,3-Dichlorobenzene | 0.20 | U | 0.20 |
| 1,4-Dichlorobenzene | 0.20 | U | 0.20 |
| Benzyl chloride | 0.20 | U | 0.20 |
| n-Butylbenzene | 0.20 | U | 0.20 |
| 1,2-Dichlorobenzene | 0.20 | U | 0.20 |
| 1,2,4-Trichlorobenzene | 0.50 | U | 0.50 |
| Hexachlorobutadiene | 0.20 | U | 0.20 |
| Naphthalene | 0.50 | U | 0.50 |

| Analyte | Result (ug/m3) | Qualifier | RL |
|-------------------------------|----------------|-----------|------|
| Dichlorodifluoromethane | 2.5 | U | 2.5 |
| Freon 22 | 1.8 | U | 1.8 |
| 1,2-Dichlorotetrafluoroethane | 1.4 | U | 1.4 |
| Chloromethane | 1.0 | U | 1.0 |
| n-Butane | 1.2 | U | 1.2 |
| Vinyl chloride | 0.10 | U | 0.10 |
| 1,3-Butadiene | 0.44 | U | 0.44 |
| Bromomethane | 0.78 | U | 0.78 |
| Chloroethane | 1.3 | U | 1.3 |
| Bromoethene(Vinyl Bromide) | 0.87 | U | 0.87 |
| Trichlorofluoromethane | 1.1 | U | 1.1 |
| Freon TF | 1.5 | U | 1.5 |
| 1,1-Dichloroethene | 0.79 | U | 0.79 |
| Acetone | 12 | U | 12 |
| Isopropyl alcohol | 12 | U | 12 |
| Carbon disulfide | 1.6 | U | 1.6 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: TB-170329

Lab Sample ID: 200-38009-4

Date Sampled: 03/29/2017 0000

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115389 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24548_26.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 04/04/2017 0830 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 0830 | | | Injection Volume: | 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|----------------------------------|----------------|-----------|------|
| 3-Chloropropene | 1.6 | U | 1.6 |
| Methylene Chloride | 1.7 | U | 1.7 |
| tert-Butyl alcohol | 15 | U | 15 |
| Methyl tert-butyl ether | 0.72 | U | 0.72 |
| trans-1,2-Dichloroethene | 0.79 | U | 0.79 |
| n-Hexane | 0.70 | U | 0.70 |
| 1,1-Dichloroethane | 0.81 | U | 0.81 |
| Methyl Ethyl Ketone | 1.5 | U | 1.5 |
| cis-1,2-Dichloroethene | 0.79 | U | 0.79 |
| 1,2-Dichloroethene, Total | 1.6 | U | 1.6 |
| Chloroform | 0.98 | U | 0.98 |
| Tetrahydrofuran | 15 | U | 15 |
| 1,1,1-Trichloroethane | 1.1 | U | 1.1 |
| Cyclohexane | 0.69 | U | 0.69 |
| Carbon tetrachloride | 0.25 | U | 0.25 |
| 2,2,4-Trimethylpentane | 0.93 | U | 0.93 |
| Benzene | 0.64 | U | 0.64 |
| 1,2-Dichloroethane | 0.81 | U | 0.81 |
| n-Heptane | 0.82 | U | 0.82 |
| Trichloroethene | 0.21 | U | 0.21 |
| Methyl methacrylate | 2.0 | U | 2.0 |
| 1,2-Dichloropropane | 0.92 | U | 0.92 |
| 1,4-Dioxane | 18 | U | 18 |
| Bromodichloromethane | 1.3 | U | 1.3 |
| cis-1,3-Dichloropropene | 0.91 | U | 0.91 |
| methyl isobutyl ketone | 2.0 | U | 2.0 |
| Toluene | 0.75 | U | 0.75 |
| trans-1,3-Dichloropropene | 0.91 | U | 0.91 |
| 1,1,2-Trichloroethane | 1.1 | U | 1.1 |
| Tetrachloroethene | 1.4 | U | 1.4 |
| Methyl Butyl Ketone (2-Hexanone) | 2.0 | U | 2.0 |
| Dibromochloromethane | 1.7 | U | 1.7 |
| 1,2-Dibromoethane | 1.5 | U | 1.5 |
| Chlorobenzene | 0.92 | U | 0.92 |
| Ethylbenzene | 0.87 | U | 0.87 |
| m,p-Xylene | 2.2 | U | 2.2 |
| Xylene, o- | 0.87 | U | 0.87 |
| Xylene (total) | 3.0 | U | 3.0 |
| Styrene | 0.85 | U | 0.85 |
| Bromoform | 2.1 | U | 2.1 |
| Cumene | 0.98 | U | 0.98 |
| 1,1,2,2-Tetrachloroethane | 1.4 | U | 1.4 |
| n-Propylbenzene | 0.98 | U | 0.98 |
| 4-Ethyltoluene | 0.98 | U | 0.98 |
| 1,3,5-Trimethylbenzene | 0.98 | U | 0.98 |
| 2-Chlorotoluene | 1.0 | U | 1.0 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: TB-170329

Lab Sample ID: 200-38009-4

Date Sampled: 03/29/2017 0000

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115389 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24548_26.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 04/04/2017 0830 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/04/2017 0830 | | | Injection Volume: | 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|------------------------|----------------|-----------|------|
| tert-Butylbenzene | 1.1 | U | 1.1 |
| 1,2,4-Trimethylbenzene | 0.98 | U | 0.98 |
| sec-Butylbenzene | 1.1 | U | 1.1 |
| 4-Isopropyltoluene | 1.1 | U | 1.1 |
| 1,3-Dichlorobenzene | 1.2 | U | 1.2 |
| 1,4-Dichlorobenzene | 1.2 | U | 1.2 |
| Benzyl chloride | 1.0 | U | 1.0 |
| n-Butylbenzene | 1.1 | U | 1.1 |
| 1,2-Dichlorobenzene | 1.2 | U | 1.2 |
| 1,2,4-Trichlorobenzene | 3.7 | U | 3.7 |
| Hexachlorobutadiene | 2.1 | U | 2.1 |
| Naphthalene | 2.6 | U | 2.6 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Client Sample ID: TB-170329

Lab Sample ID: 200-38009-4

Date Sampled: 03/29/2017 0000

Client Matrix: Air

Date Received: 03/30/2017 1020

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15

Analysis Batch: 200-115389

Instrument ID: CHX.i

Prep Method: Summa Canister

Prep Batch: N/A

Lab File ID: 24548_26.D

Dilution: 1.0

Initial Weight/Volume: 200 mL

Analysis Date: 04/04/2017 0830

Final Weight/Volume: 200 mL

Prep Date: 04/04/2017 0830

Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

DATA REPORTING QUALIFIERS

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

| Lab Section | Qualifier | Description |
|--------------------|------------------|---|
| Air - GC/MS VOA | J | Indicates an Estimated Value for TICs |
| | U | Indicates the analyte was analyzed for but not detected. |
| | N | This flag indicates the presumptive evidence of a compound. |

QUALITY CONTROL RESULTS

Quality Control Results

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|--------------------|--------------|---------------|--------|------------|
| Air - GC/MS VOA | | | | | |
| Analysis Batch:200-115389 | | | | | |
| LCS 200-115389/5 | Lab Control Sample | T | Air | TO-15 | |
| MB 200-115389/6 | Method Blank | T | Air | TO-15 | |
| 200-38009-4 | TB-170329 | T | Air | TO-15 | |
| Analysis Batch:200-115450 | | | | | |
| LCS 200-115450/4 | Lab Control Sample | T | Air | TO-15 | |
| MB 200-115450/7 | Method Blank | T | Air | TO-15 | |
| 200-38009-1 | SV-6-170329 | T | Air | TO-15 | |
| 200-38009-2 | SV-1-170329 | T | Air | TO-15 | |
| 200-38009-3 | SV-3-170329 | T | Air | TO-15 | |

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Method Blank - Batch: 200-115389

Method: TO-15

Preparation: Summa Canister

Lab Sample ID: MB 200-115389/6
 Client Matrix: Air
 Dilution: 1.0
 Analysis Date: 04/03/2017 1359
 Prep Date: 04/03/2017 1359
 Leach Date: N/A

Analysis Batch: 200-115389
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ppb v/v

Instrument ID: CHX.i
 Lab File ID: 24548_06.D
 Initial Weight/Volume: 200 mL
 Final Weight/Volume: 200 mL
 Injection Volume: 200 mL

| Analyte | Result | Qual | RL |
|-------------------------------|--------|------|-------|
| Dichlorodifluoromethane | 0.50 | U | 0.50 |
| Freon 22 | 0.50 | U | 0.50 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | U | 0.20 |
| Chloromethane | 0.50 | U | 0.50 |
| n-Butane | 0.50 | U | 0.50 |
| Vinyl chloride | 0.040 | U | 0.040 |
| 1,3-Butadiene | 0.20 | U | 0.20 |
| Bromomethane | 0.20 | U | 0.20 |
| Chloroethane | 0.50 | U | 0.50 |
| Bromoethene(Vinyl Bromide) | 0.20 | U | 0.20 |
| Trichlorofluoromethane | 0.20 | U | 0.20 |
| Freon TF | 0.20 | U | 0.20 |
| 1,1-Dichloroethene | 0.20 | U | 0.20 |
| Acetone | 5.0 | U | 5.0 |
| Isopropyl alcohol | 5.0 | U | 5.0 |
| Carbon disulfide | 0.50 | U | 0.50 |
| 3-Chloropropene | 0.50 | U | 0.50 |
| Methylene Chloride | 0.50 | U | 0.50 |
| tert-Butyl alcohol | 5.0 | U | 5.0 |
| Methyl tert-butyl ether | 0.20 | U | 0.20 |
| trans-1,2-Dichloroethene | 0.20 | U | 0.20 |
| n-Hexane | 0.20 | U | 0.20 |
| 1,1-Dichloroethane | 0.20 | U | 0.20 |
| Methyl Ethyl Ketone | 0.50 | U | 0.50 |
| cis-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 1,2-Dichloroethene, Total | 0.40 | U | 0.40 |
| Chloroform | 0.20 | U | 0.20 |
| Tetrahydrofuran | 5.0 | U | 5.0 |
| 1,1,1-Trichloroethane | 0.20 | U | 0.20 |
| Cyclohexane | 0.20 | U | 0.20 |
| Carbon tetrachloride | 0.040 | U | 0.040 |
| 2,2,4-Trimethylpentane | 0.20 | U | 0.20 |
| Benzene | 0.20 | U | 0.20 |
| 1,2-Dichloroethane | 0.20 | U | 0.20 |
| n-Heptane | 0.20 | U | 0.20 |
| Trichloroethene | 0.040 | U | 0.040 |
| Methyl methacrylate | 0.50 | U | 0.50 |
| 1,2-Dichloropropane | 0.20 | U | 0.20 |
| 1,4-Dioxane | 5.0 | U | 5.0 |
| Bromodichloromethane | 0.20 | U | 0.20 |
| cis-1,3-Dichloropropene | 0.20 | U | 0.20 |
| methyl isobutyl ketone | 0.50 | U | 0.50 |
| Toluene | 0.20 | U | 0.20 |
| trans-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 1,1,2-Trichloroethane | 0.20 | U | 0.20 |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Method Blank - Batch: 200-115389

Method: TO-15

Preparation: Summa Canister

Lab Sample ID: MB 200-115389/6
 Client Matrix: Air
 Dilution: 1.0
 Analysis Date: 04/03/2017 1359
 Prep Date: 04/03/2017 1359
 Leach Date: N/A

Analysis Batch: 200-115389
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ppb v/v

Instrument ID: CHX.i
 Lab File ID: 24548_06.D
 Initial Weight/Volume: 200 mL
 Final Weight/Volume: 200 mL
 Injection Volume: 200 mL

| Analyte | Result | Qual | RL |
|----------------------------------|--------|------|------|
| Tetrachloroethene | 0.20 | U | 0.20 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | U | 0.50 |
| Dibromochloromethane | 0.20 | U | 0.20 |
| 1,2-Dibromoethane | 0.20 | U | 0.20 |
| Chlorobenzene | 0.20 | U | 0.20 |
| Ethylbenzene | 0.20 | U | 0.20 |
| m,p-Xylene | 0.50 | U | 0.50 |
| Xylene, o- | 0.20 | U | 0.20 |
| Xylene (total) | 0.70 | U | 0.70 |
| Styrene | 0.20 | U | 0.20 |
| Bromoform | 0.20 | U | 0.20 |
| Cumene | 0.20 | U | 0.20 |
| 1,1,2,2-Tetrachloroethane | 0.20 | U | 0.20 |
| n-Propylbenzene | 0.20 | U | 0.20 |
| 4-Ethyltoluene | 0.20 | U | 0.20 |
| 1,3,5-Trimethylbenzene | 0.20 | U | 0.20 |
| 2-Chlorotoluene | 0.20 | U | 0.20 |
| tert-Butylbenzene | 0.20 | U | 0.20 |
| 1,2,4-Trimethylbenzene | 0.20 | U | 0.20 |
| sec-Butylbenzene | 0.20 | U | 0.20 |
| 4-Isopropyltoluene | 0.20 | U | 0.20 |
| 1,3-Dichlorobenzene | 0.20 | U | 0.20 |
| 1,4-Dichlorobenzene | 0.20 | U | 0.20 |
| Benzyl chloride | 0.20 | U | 0.20 |
| n-Butylbenzene | 0.20 | U | 0.20 |
| 1,2-Dichlorobenzene | 0.20 | U | 0.20 |
| 1,2,4-Trichlorobenzene | 0.50 | U | 0.50 |
| Hexachlorobutadiene | 0.20 | U | 0.20 |
| Naphthalene | 0.50 | U | 0.50 |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Method Blank - Batch: 200-115389

Method: TO-15

Preparation: Summa Canister

Lab Sample ID: MB 200-115389/6
 Client Matrix: Air
 Dilution: 1.0
 Analysis Date: 04/03/2017 1359
 Prep Date: 04/03/2017 1359
 Leach Date: N/A

Analysis Batch: 200-115389
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/m3

Instrument ID: CHX.i
 Lab File ID: 24548_06.D
 Initial Weight/Volume: 200 mL
 Final Weight/Volume: 200 mL
 Injection Volume: 200 mL

| Analyte | Result | Qual | RL |
|-------------------------------|--------|------|------|
| Dichlorodifluoromethane | 2.5 | U | 2.5 |
| Freon 22 | 1.8 | U | 1.8 |
| 1,2-Dichlorotetrafluoroethane | 1.4 | U | 1.4 |
| Chloromethane | 1.0 | U | 1.0 |
| n-Butane | 1.2 | U | 1.2 |
| Vinyl chloride | 0.10 | U | 0.10 |
| 1,3-Butadiene | 0.44 | U | 0.44 |
| Bromomethane | 0.78 | U | 0.78 |
| Chloroethane | 1.3 | U | 1.3 |
| Bromoethene(Vinyl Bromide) | 0.87 | U | 0.87 |
| Trichlorofluoromethane | 1.1 | U | 1.1 |
| Freon TF | 1.5 | U | 1.5 |
| 1,1-Dichloroethene | 0.79 | U | 0.79 |
| Acetone | 12 | U | 12 |
| Isopropyl alcohol | 12 | U | 12 |
| Carbon disulfide | 1.6 | U | 1.6 |
| 3-Chloropropene | 1.6 | U | 1.6 |
| Methylene Chloride | 1.7 | U | 1.7 |
| tert-Butyl alcohol | 15 | U | 15 |
| Methyl tert-butyl ether | 0.72 | U | 0.72 |
| trans-1,2-Dichloroethene | 0.79 | U | 0.79 |
| n-Hexane | 0.70 | U | 0.70 |
| 1,1-Dichloroethane | 0.81 | U | 0.81 |
| Methyl Ethyl Ketone | 1.5 | U | 1.5 |
| cis-1,2-Dichloroethene | 0.79 | U | 0.79 |
| 1,2-Dichloroethene, Total | 1.6 | U | 1.6 |
| Chloroform | 0.98 | U | 0.98 |
| Tetrahydrofuran | 15 | U | 15 |
| 1,1,1-Trichloroethane | 1.1 | U | 1.1 |
| Cyclohexane | 0.69 | U | 0.69 |
| Carbon tetrachloride | 0.25 | U | 0.25 |
| 2,2,4-Trimethylpentane | 0.93 | U | 0.93 |
| Benzene | 0.64 | U | 0.64 |
| 1,2-Dichloroethane | 0.81 | U | 0.81 |
| n-Heptane | 0.82 | U | 0.82 |
| Trichloroethene | 0.21 | U | 0.21 |
| Methyl methacrylate | 2.0 | U | 2.0 |
| 1,2-Dichloropropane | 0.92 | U | 0.92 |
| 1,4-Dioxane | 18 | U | 18 |
| Bromodichloromethane | 1.3 | U | 1.3 |
| cis-1,3-Dichloropropene | 0.91 | U | 0.91 |
| methyl isobutyl ketone | 2.0 | U | 2.0 |
| Toluene | 0.75 | U | 0.75 |
| trans-1,3-Dichloropropene | 0.91 | U | 0.91 |
| 1,1,2-Trichloroethane | 1.1 | U | 1.1 |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Method Blank - Batch: 200-115389

Method: TO-15

Preparation: Summa Canister

Lab Sample ID: MB 200-115389/6
 Client Matrix: Air
 Dilution: 1.0
 Analysis Date: 04/03/2017 1359
 Prep Date: 04/03/2017 1359
 Leach Date: N/A

Analysis Batch: 200-115389
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/m3

Instrument ID: CHX.i
 Lab File ID: 24548_06.D
 Initial Weight/Volume: 200 mL
 Final Weight/Volume: 200 mL
 Injection Volume: 200 mL

| Analyte | Result | Qual | RL |
|----------------------------------|--------|------|------|
| Tetrachloroethene | 1.4 | U | 1.4 |
| Methyl Butyl Ketone (2-Hexanone) | 2.0 | U | 2.0 |
| Dibromochloromethane | 1.7 | U | 1.7 |
| 1,2-Dibromoethane | 1.5 | U | 1.5 |
| Chlorobenzene | 0.92 | U | 0.92 |
| Ethylbenzene | 0.87 | U | 0.87 |
| m,p-Xylene | 2.2 | U | 2.2 |
| Xylene, o- | 0.87 | U | 0.87 |
| Xylene (total) | 3.0 | U | 3.0 |
| Styrene | 0.85 | U | 0.85 |
| Bromoform | 2.1 | U | 2.1 |
| Cumene | 0.98 | U | 0.98 |
| 1,1,2,2-Tetrachloroethane | 1.4 | U | 1.4 |
| n-Propylbenzene | 0.98 | U | 0.98 |
| 4-Ethyltoluene | 0.98 | U | 0.98 |
| 1,3,5-Trimethylbenzene | 0.98 | U | 0.98 |
| 2-Chlorotoluene | 1.0 | U | 1.0 |
| tert-Butylbenzene | 1.1 | U | 1.1 |
| 1,2,4-Trimethylbenzene | 0.98 | U | 0.98 |
| sec-Butylbenzene | 1.1 | U | 1.1 |
| 4-Isopropyltoluene | 1.1 | U | 1.1 |
| 1,3-Dichlorobenzene | 1.2 | U | 1.2 |
| 1,4-Dichlorobenzene | 1.2 | U | 1.2 |
| Benzyl chloride | 1.0 | U | 1.0 |
| n-Butylbenzene | 1.1 | U | 1.1 |
| 1,2-Dichlorobenzene | 1.2 | U | 1.2 |
| 1,2,4-Trichlorobenzene | 3.7 | U | 3.7 |
| Hexachlorobutadiene | 2.1 | U | 2.1 |
| Naphthalene | 2.6 | U | 2.6 |

Method Blank TICs- Batch: 200-115389

| Cas Number | Analyte | RT | Est. Result (ppb) | Qual |
|------------|---------------------------------|----|-------------------|------|
| | Tentatively Identified Compound | | None | |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Lab Control Sample - Batch: 200-115389

Method: TO-15

Preparation: Summa Canister

| | | |
|---------------------------------|----------------------------|-------------------------------|
| Lab Sample ID: LCS 200-115389/5 | Analysis Batch: 200-115389 | Instrument ID: CHX.i |
| Client Matrix: Air | Prep Batch: N/A | Lab File ID: 24548_05.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 200 mL |
| Analysis Date: 04/03/2017 1309 | Units: ppb v/v | Final Weight/Volume: 200 mL |
| Prep Date: 04/03/2017 1309 | | Injection Volume: 200 mL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-------------------------------|--------------|--------|--------|----------|------|
| Dichlorodifluoromethane | 10.0 | 9.87 | 99 | 68 - 128 | |
| Freon 22 | 10.0 | 8.67 | 87 | 64 - 128 | |
| 1,2-Dichlorotetrafluoroethane | 10.0 | 10.7 | 107 | 78 - 138 | |
| Chloromethane | 10.0 | 8.11 | 81 | 57 - 126 | |
| n-Butane | 10.0 | 7.96 | 80 | 56 - 130 | |
| Vinyl chloride | 10.0 | 8.82 | 88 | 62 - 125 | |
| 1,3-Butadiene | 10.0 | 8.42 | 84 | 59 - 125 | |
| Bromomethane | 10.0 | 9.99 | 100 | 68 - 128 | |
| Chloroethane | 10.0 | 9.17 | 92 | 65 - 125 | |
| Bromoethene(Vinyl Bromide) | 10.0 | 10.2 | 102 | 67 - 127 | |
| Trichlorofluoromethane | 10.0 | 10.2 | 102 | 67 - 127 | |
| Freon TF | 10.0 | 10.4 | 104 | 68 - 128 | |
| 1,1-Dichloroethene | 10.0 | 10.3 | 103 | 67 - 127 | |
| Acetone | 10.0 | 8.68 | 87 | 64 - 136 | |
| Isopropyl alcohol | 10.0 | 8.81 | 88 | 55 - 124 | |
| Carbon disulfide | 10.0 | 11.2 | 112 | 81 - 141 | |
| 3-Chloropropene | 10.0 | 6.64 | 66 | 53 - 133 | |
| Methylene Chloride | 10.0 | 8.58 | 86 | 62 - 122 | |
| tert-Butyl alcohol | 10.0 | 9.55 | 96 | 64 - 124 | |
| Methyl tert-butyl ether | 10.0 | 10.0 | 100 | 67 - 127 | |
| trans-1,2-Dichloroethene | 10.0 | 9.87 | 99 | 72 - 132 | |
| n-Hexane | 10.0 | 9.58 | 96 | 71 - 131 | |
| 1,1-Dichloroethane | 10.0 | 9.68 | 97 | 66 - 126 | |
| Methyl Ethyl Ketone | 10.0 | 9.58 | 96 | 62 - 122 | |
| cis-1,2-Dichloroethene | 10.0 | 10.0 | 101 | 67 - 127 | |
| Chloroform | 10.0 | 9.90 | 99 | 69 - 129 | |
| Tetrahydrofuran | 10.0 | 8.38 | 84 | 61 - 136 | |
| 1,1,1-Trichloroethane | 10.0 | 10.3 | 103 | 70 - 130 | |
| Cyclohexane | 10.0 | 10.0 | 100 | 69 - 129 | |
| Carbon tetrachloride | 10.0 | 10.9 | 109 | 62 - 143 | |
| 2,2,4-Trimethylpentane | 10.0 | 8.79 | 88 | 67 - 127 | |
| Benzene | 10.0 | 9.69 | 97 | 67 - 127 | |
| 1,2-Dichloroethane | 10.0 | 9.61 | 96 | 67 - 132 | |
| n-Heptane | 10.0 | 8.18 | 82 | 62 - 130 | |
| Trichloroethene | 10.0 | 10.5 | 105 | 68 - 128 | |
| Methyl methacrylate | 10.0 | 9.83 | 98 | 70 - 130 | |
| 1,2-Dichloropropane | 10.0 | 8.90 | 89 | 67 - 127 | |
| 1,4-Dioxane | 10.0 | 9.99 | 100 | 66 - 132 | |
| Bromodichloromethane | 10.0 | 9.67 | 97 | 69 - 129 | |
| cis-1,3-Dichloropropene | 10.0 | 9.80 | 98 | 70 - 130 | |
| methyl isobutyl ketone | 10.0 | 8.13 | 81 | 62 - 130 | |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38009-1
Sdg Number: 200-38009-1

Lab Control Sample - Batch: 200-115389

Method: TO-15

Preparation: Summa Canister

| | | |
|---------------------------------|----------------------------|-------------------------------|
| Lab Sample ID: LCS 200-115389/5 | Analysis Batch: 200-115389 | Instrument ID: CHX.i |
| Client Matrix: Air | Prep Batch: N/A | Lab File ID: 24548_05.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 200 mL |
| Analysis Date: 04/03/2017 1309 | Units: ppb v/v | Final Weight/Volume: 200 mL |
| Prep Date: 04/03/2017 1309 | | Injection Volume: 200 mL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|----------------------------------|--------------|--------|--------|----------|------|
| Toluene | 10.0 | 10.1 | 101 | 67 - 127 | |
| trans-1,3-Dichloropropene | 10.0 | 9.39 | 94 | 69 - 129 | |
| 1,1,2-Trichloroethane | 10.0 | 9.79 | 98 | 69 - 129 | |
| Tetrachloroethene | 10.0 | 11.7 | 117 | 70 - 130 | |
| Methyl Butyl Ketone (2-Hexanone) | 10.0 | 7.68 | 77 | 61 - 127 | |
| Dibromochloromethane | 10.0 | 10.1 | 101 | 66 - 130 | |
| 1,2-Dibromoethane | 10.0 | 10.4 | 104 | 70 - 130 | |
| Chlorobenzene | 10.0 | 10.5 | 105 | 68 - 128 | |
| Ethylbenzene | 10.0 | 10.0 | 100 | 68 - 128 | |
| m,p-Xylene | 20.0 | 20.6 | 103 | 68 - 128 | |
| Xylene, o- | 10.0 | 10.2 | 102 | 67 - 127 | |
| Styrene | 10.0 | 10.4 | 104 | 68 - 128 | |
| Bromoform | 10.0 | 9.21 | 92 | 34 - 170 | |
| Cumene | 10.0 | 10.2 | 102 | 67 - 127 | |
| 1,1,2,2-Tetrachloroethane | 10.0 | 9.58 | 96 | 69 - 129 | |
| n-Propylbenzene | 10.0 | 9.67 | 97 | 67 - 127 | |
| 4-Ethyltoluene | 10.0 | 10.3 | 103 | 69 - 129 | |
| 1,3,5-Trimethylbenzene | 10.0 | 10.2 | 103 | 65 - 125 | |
| 2-Chlorotoluene | 10.0 | 9.73 | 97 | 67 - 127 | |
| tert-Butylbenzene | 10.0 | 10.4 | 104 | 63 - 125 | |
| 1,2,4-Trimethylbenzene | 10.0 | 10.1 | 101 | 65 - 125 | |
| sec-Butylbenzene | 10.0 | 9.99 | 100 | 66 - 126 | |
| 4-Isopropyltoluene | 10.0 | 10.3 | 103 | 67 - 129 | |
| 1,3-Dichlorobenzene | 10.0 | 10.4 | 104 | 67 - 127 | |
| 1,4-Dichlorobenzene | 10.0 | 10.2 | 102 | 66 - 126 | |
| Benzyl chloride | 10.0 | 8.15 | 82 | 54 - 135 | |
| n-Butylbenzene | 10.0 | 9.47 | 95 | 67 - 127 | |
| 1,2-Dichlorobenzene | 10.0 | 10.7 | 107 | 67 - 127 | |
| 1,2,4-Trichlorobenzene | 10.0 | 11.2 | 112 | 59 - 126 | |
| Hexachlorobutadiene | 10.0 | 12.8 | 128 | 62 - 130 | |
| Naphthalene | 10.0 | 9.70 | 97 | 50 - 121 | |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38009-1
Sdg Number: 200-38009-1

Method Blank - Batch: 200-115450

Method: TO-15

Preparation: Summa Canister

Lab Sample ID: MB 200-115450/7
Client Matrix: Air
Dilution: 1.0
Analysis Date: 04/04/2017 1627
Prep Date: 04/04/2017 1627
Leach Date: N/A

Analysis Batch: 200-115450
Prep Batch: N/A
Leach Batch: N/A
Units: ppb v/v

Instrument ID: CHX.i
Lab File ID: 24576_07.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | RL |
|-------------------------------|--------|------|-------|
| Dichlorodifluoromethane | 0.50 | U | 0.50 |
| Freon 22 | 0.50 | U | 0.50 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | U | 0.20 |
| Chloromethane | 0.50 | U | 0.50 |
| n-Butane | 0.50 | U | 0.50 |
| Vinyl chloride | 0.040 | U | 0.040 |
| 1,3-Butadiene | 0.20 | U | 0.20 |
| Bromomethane | 0.20 | U | 0.20 |
| Chloroethane | 0.50 | U | 0.50 |
| Bromoethene(Vinyl Bromide) | 0.20 | U | 0.20 |
| Trichlorofluoromethane | 0.20 | U | 0.20 |
| Freon TF | 0.20 | U | 0.20 |
| 1,1-Dichloroethene | 0.20 | U | 0.20 |
| Acetone | 5.0 | U | 5.0 |
| Isopropyl alcohol | 5.0 | U | 5.0 |
| Carbon disulfide | 0.50 | U | 0.50 |
| 3-Chloropropene | 0.50 | U | 0.50 |
| Methylene Chloride | 0.50 | U | 0.50 |
| tert-Butyl alcohol | 5.0 | U | 5.0 |
| Methyl tert-butyl ether | 0.20 | U | 0.20 |
| trans-1,2-Dichloroethene | 0.20 | U | 0.20 |
| n-Hexane | 0.20 | U | 0.20 |
| 1,1-Dichloroethane | 0.20 | U | 0.20 |
| Methyl Ethyl Ketone | 0.50 | U | 0.50 |
| cis-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 1,2-Dichloroethene, Total | 0.40 | U | 0.40 |
| Chloroform | 0.20 | U | 0.20 |
| Tetrahydrofuran | 5.0 | U | 5.0 |
| 1,1,1-Trichloroethane | 0.20 | U | 0.20 |
| Cyclohexane | 0.20 | U | 0.20 |
| Carbon tetrachloride | 0.040 | U | 0.040 |
| 2,2,4-Trimethylpentane | 0.20 | U | 0.20 |
| Benzene | 0.20 | U | 0.20 |
| 1,2-Dichloroethane | 0.20 | U | 0.20 |
| n-Heptane | 0.20 | U | 0.20 |
| Trichloroethene | 0.040 | U | 0.040 |
| Methyl methacrylate | 0.50 | U | 0.50 |
| 1,2-Dichloropropane | 0.20 | U | 0.20 |
| 1,4-Dioxane | 5.0 | U | 5.0 |
| Bromodichloromethane | 0.20 | U | 0.20 |
| cis-1,3-Dichloropropene | 0.20 | U | 0.20 |
| methyl isobutyl ketone | 0.50 | U | 0.50 |
| Toluene | 0.20 | U | 0.20 |
| trans-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 1,1,2-Trichloroethane | 0.20 | U | 0.20 |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Method Blank - Batch: 200-115450

Method: TO-15

Preparation: Summa Canister

Lab Sample ID: MB 200-115450/7
 Client Matrix: Air
 Dilution: 1.0
 Analysis Date: 04/04/2017 1627
 Prep Date: 04/04/2017 1627
 Leach Date: N/A

Analysis Batch: 200-115450
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ppb v/v

Instrument ID: CHX.i
 Lab File ID: 24576_07.D
 Initial Weight/Volume: 200 mL
 Final Weight/Volume: 200 mL
 Injection Volume: 200 mL

| Analyte | Result | Qual | RL |
|----------------------------------|--------|------|------|
| Tetrachloroethene | 0.20 | U | 0.20 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | U | 0.50 |
| Dibromochloromethane | 0.20 | U | 0.20 |
| 1,2-Dibromoethane | 0.20 | U | 0.20 |
| Chlorobenzene | 0.20 | U | 0.20 |
| Ethylbenzene | 0.20 | U | 0.20 |
| m,p-Xylene | 0.50 | U | 0.50 |
| Xylene, o- | 0.20 | U | 0.20 |
| Xylene (total) | 0.70 | U | 0.70 |
| Styrene | 0.20 | U | 0.20 |
| Bromoform | 0.20 | U | 0.20 |
| Cumene | 0.20 | U | 0.20 |
| 1,1,2,2-Tetrachloroethane | 0.20 | U | 0.20 |
| n-Propylbenzene | 0.20 | U | 0.20 |
| 4-Ethyltoluene | 0.20 | U | 0.20 |
| 1,3,5-Trimethylbenzene | 0.20 | U | 0.20 |
| 2-Chlorotoluene | 0.20 | U | 0.20 |
| tert-Butylbenzene | 0.20 | U | 0.20 |
| 1,2,4-Trimethylbenzene | 0.20 | U | 0.20 |
| sec-Butylbenzene | 0.20 | U | 0.20 |
| 4-Isopropyltoluene | 0.20 | U | 0.20 |
| 1,3-Dichlorobenzene | 0.20 | U | 0.20 |
| 1,4-Dichlorobenzene | 0.20 | U | 0.20 |
| Benzyl chloride | 0.20 | U | 0.20 |
| n-Butylbenzene | 0.20 | U | 0.20 |
| 1,2-Dichlorobenzene | 0.20 | U | 0.20 |
| 1,2,4-Trichlorobenzene | 0.50 | U | 0.50 |
| Hexachlorobutadiene | 0.20 | U | 0.20 |
| Naphthalene | 0.50 | U | 0.50 |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38009-1
Sdg Number: 200-38009-1

Method Blank - Batch: 200-115450

Method: TO-15

Preparation: Summa Canister

Lab Sample ID: MB 200-115450/7
Client Matrix: Air
Dilution: 1.0
Analysis Date: 04/04/2017 1627
Prep Date: 04/04/2017 1627
Leach Date: N/A

Analysis Batch: 200-115450
Prep Batch: N/A
Leach Batch: N/A
Units: ug/m3

Instrument ID: CHX.i
Lab File ID: 24576_07.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | RL |
|-------------------------------|--------|------|------|
| Dichlorodifluoromethane | 2.5 | U | 2.5 |
| Freon 22 | 1.8 | U | 1.8 |
| 1,2-Dichlorotetrafluoroethane | 1.4 | U | 1.4 |
| Chloromethane | 1.0 | U | 1.0 |
| n-Butane | 1.2 | U | 1.2 |
| Vinyl chloride | 0.10 | U | 0.10 |
| 1,3-Butadiene | 0.44 | U | 0.44 |
| Bromomethane | 0.78 | U | 0.78 |
| Chloroethane | 1.3 | U | 1.3 |
| Bromoethene(Vinyl Bromide) | 0.87 | U | 0.87 |
| Trichlorofluoromethane | 1.1 | U | 1.1 |
| Freon TF | 1.5 | U | 1.5 |
| 1,1-Dichloroethene | 0.79 | U | 0.79 |
| Acetone | 12 | U | 12 |
| Isopropyl alcohol | 12 | U | 12 |
| Carbon disulfide | 1.6 | U | 1.6 |
| 3-Chloropropene | 1.6 | U | 1.6 |
| Methylene Chloride | 1.7 | U | 1.7 |
| tert-Butyl alcohol | 15 | U | 15 |
| Methyl tert-butyl ether | 0.72 | U | 0.72 |
| trans-1,2-Dichloroethene | 0.79 | U | 0.79 |
| n-Hexane | 0.70 | U | 0.70 |
| 1,1-Dichloroethane | 0.81 | U | 0.81 |
| Methyl Ethyl Ketone | 1.5 | U | 1.5 |
| cis-1,2-Dichloroethene | 0.79 | U | 0.79 |
| 1,2-Dichloroethene, Total | 1.6 | U | 1.6 |
| Chloroform | 0.98 | U | 0.98 |
| Tetrahydrofuran | 15 | U | 15 |
| 1,1,1-Trichloroethane | 1.1 | U | 1.1 |
| Cyclohexane | 0.69 | U | 0.69 |
| Carbon tetrachloride | 0.25 | U | 0.25 |
| 2,2,4-Trimethylpentane | 0.93 | U | 0.93 |
| Benzene | 0.64 | U | 0.64 |
| 1,2-Dichloroethane | 0.81 | U | 0.81 |
| n-Heptane | 0.82 | U | 0.82 |
| Trichloroethene | 0.21 | U | 0.21 |
| Methyl methacrylate | 2.0 | U | 2.0 |
| 1,2-Dichloropropane | 0.92 | U | 0.92 |
| 1,4-Dioxane | 18 | U | 18 |
| Bromodichloromethane | 1.3 | U | 1.3 |
| cis-1,3-Dichloropropene | 0.91 | U | 0.91 |
| methyl isobutyl ketone | 2.0 | U | 2.0 |
| Toluene | 0.75 | U | 0.75 |
| trans-1,3-Dichloropropene | 0.91 | U | 0.91 |
| 1,1,2-Trichloroethane | 1.1 | U | 1.1 |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Method Blank - Batch: 200-115450

Method: TO-15

Preparation: Summa Canister

Lab Sample ID: MB 200-115450/7
 Client Matrix: Air
 Dilution: 1.0
 Analysis Date: 04/04/2017 1627
 Prep Date: 04/04/2017 1627
 Leach Date: N/A

Analysis Batch: 200-115450
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/m3

Instrument ID: CHX.i
 Lab File ID: 24576_07.D
 Initial Weight/Volume: 200 mL
 Final Weight/Volume: 200 mL
 Injection Volume: 200 mL

| Analyte | Result | Qual | RL |
|----------------------------------|--------|------|------|
| Tetrachloroethene | 1.4 | U | 1.4 |
| Methyl Butyl Ketone (2-Hexanone) | 2.0 | U | 2.0 |
| Dibromochloromethane | 1.7 | U | 1.7 |
| 1,2-Dibromoethane | 1.5 | U | 1.5 |
| Chlorobenzene | 0.92 | U | 0.92 |
| Ethylbenzene | 0.87 | U | 0.87 |
| m,p-Xylene | 2.2 | U | 2.2 |
| Xylene, o- | 0.87 | U | 0.87 |
| Xylene (total) | 3.0 | U | 3.0 |
| Styrene | 0.85 | U | 0.85 |
| Bromoform | 2.1 | U | 2.1 |
| Cumene | 0.98 | U | 0.98 |
| 1,1,2,2-Tetrachloroethane | 1.4 | U | 1.4 |
| n-Propylbenzene | 0.98 | U | 0.98 |
| 4-Ethyltoluene | 0.98 | U | 0.98 |
| 1,3,5-Trimethylbenzene | 0.98 | U | 0.98 |
| 2-Chlorotoluene | 1.0 | U | 1.0 |
| tert-Butylbenzene | 1.1 | U | 1.1 |
| 1,2,4-Trimethylbenzene | 0.98 | U | 0.98 |
| sec-Butylbenzene | 1.1 | U | 1.1 |
| 4-Isopropyltoluene | 1.1 | U | 1.1 |
| 1,3-Dichlorobenzene | 1.2 | U | 1.2 |
| 1,4-Dichlorobenzene | 1.2 | U | 1.2 |
| Benzyl chloride | 1.0 | U | 1.0 |
| n-Butylbenzene | 1.1 | U | 1.1 |
| 1,2-Dichlorobenzene | 1.2 | U | 1.2 |
| 1,2,4-Trichlorobenzene | 3.7 | U | 3.7 |
| Hexachlorobutadiene | 2.1 | U | 2.1 |
| Naphthalene | 2.6 | U | 2.6 |

Method Blank TICs- Batch: 200-115450

| Cas Number | Analyte | RT | Est. Result (ppb) | Qual |
|------------|---------------------------------|----|-------------------|------|
| | Tentatively Identified Compound | | None | |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38009-1
Sdg Number: 200-38009-1

Lab Control Sample - Batch: 200-115450

Method: TO-15

Preparation: Summa Canister

| | | |
|---------------------------------|----------------------------|-------------------------------|
| Lab Sample ID: LCS 200-115450/4 | Analysis Batch: 200-115450 | Instrument ID: CHX.i |
| Client Matrix: Air | Prep Batch: N/A | Lab File ID: 24576_04.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 200 mL |
| Analysis Date: 04/04/2017 1355 | Units: ppb v/v | Final Weight/Volume: 200 mL |
| Prep Date: 04/04/2017 1355 | | Injection Volume: 200 mL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-------------------------------|--------------|--------|--------|----------|------|
| Dichlorodifluoromethane | 10.0 | 9.90 | 99 | 68 - 128 | |
| Freon 22 | 10.0 | 9.31 | 93 | 64 - 128 | |
| 1,2-Dichlorotetrafluoroethane | 10.0 | 11.5 | 115 | 78 - 138 | |
| Chloromethane | 10.0 | 9.48 | 95 | 57 - 126 | |
| n-Butane | 10.0 | 9.24 | 92 | 56 - 130 | |
| Vinyl chloride | 10.0 | 10.0 | 100 | 62 - 125 | |
| 1,3-Butadiene | 10.0 | 9.80 | 98 | 59 - 125 | |
| Bromomethane | 10.0 | 10.8 | 108 | 68 - 128 | |
| Chloroethane | 10.0 | 10.4 | 104 | 65 - 125 | |
| Bromoethene(Vinyl Bromide) | 10.0 | 10.9 | 109 | 67 - 127 | |
| Trichlorofluoromethane | 10.0 | 10.2 | 102 | 67 - 127 | |
| Freon TF | 10.0 | 11.2 | 112 | 68 - 128 | |
| 1,1-Dichloroethene | 10.0 | 11.2 | 112 | 67 - 127 | |
| Acetone | 10.0 | 9.50 | 95 | 64 - 136 | |
| Isopropyl alcohol | 10.0 | 10.2 | 102 | 55 - 124 | |
| Carbon disulfide | 10.0 | 12.7 | 127 | 81 - 141 | |
| 3-Chloropropene | 10.0 | 7.80 | 78 | 53 - 133 | |
| Methylene Chloride | 10.0 | 10.1 | 101 | 62 - 122 | |
| tert-Butyl alcohol | 10.0 | 10.4 | 104 | 64 - 124 | |
| Methyl tert-butyl ether | 10.0 | 10.8 | 108 | 67 - 127 | |
| trans-1,2-Dichloroethene | 10.0 | 11.1 | 111 | 72 - 132 | |
| n-Hexane | 10.0 | 11.2 | 112 | 71 - 131 | |
| 1,1-Dichloroethane | 10.0 | 10.9 | 109 | 66 - 126 | |
| Methyl Ethyl Ketone | 10.0 | 10.7 | 107 | 62 - 122 | |
| cis-1,2-Dichloroethene | 10.0 | 10.9 | 109 | 67 - 127 | |
| Chloroform | 10.0 | 10.5 | 105 | 69 - 129 | |
| Tetrahydrofuran | 10.0 | 10.1 | 101 | 61 - 136 | |
| 1,1,1-Trichloroethane | 10.0 | 10.4 | 104 | 70 - 130 | |
| Cyclohexane | 10.0 | 11.1 | 111 | 69 - 129 | |
| Carbon tetrachloride | 10.0 | 10.8 | 108 | 62 - 143 | |
| 2,2,4-Trimethylpentane | 10.0 | 10.3 | 103 | 67 - 127 | |
| Benzene | 10.0 | 10.6 | 106 | 67 - 127 | |
| 1,2-Dichloroethane | 10.0 | 9.73 | 97 | 67 - 132 | |
| n-Heptane | 10.0 | 9.72 | 97 | 62 - 130 | |
| Trichloroethene | 10.0 | 11.0 | 110 | 68 - 128 | |
| Methyl methacrylate | 10.0 | 10.8 | 108 | 70 - 130 | |
| 1,2-Dichloropropane | 10.0 | 10.2 | 102 | 67 - 127 | |
| 1,4-Dioxane | 10.0 | 10.6 | 107 | 66 - 132 | |
| Bromodichloromethane | 10.0 | 10.0 | 100 | 69 - 129 | |
| cis-1,3-Dichloropropene | 10.0 | 10.5 | 105 | 70 - 130 | |
| methyl isobutyl ketone | 10.0 | 9.40 | 94 | 62 - 130 | |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38009-1

Sdg Number: 200-38009-1

Lab Control Sample - Batch: 200-115450

Method: TO-15

Preparation: Summa Canister

| | | |
|---------------------------------|----------------------------|-------------------------------|
| Lab Sample ID: LCS 200-115450/4 | Analysis Batch: 200-115450 | Instrument ID: CHX.i |
| Client Matrix: Air | Prep Batch: N/A | Lab File ID: 24576_04.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 200 mL |
| Analysis Date: 04/04/2017 1355 | Units: ppb v/v | Final Weight/Volume: 200 mL |
| Prep Date: 04/04/2017 1355 | | Injection Volume: 200 mL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|----------------------------------|--------------|--------|--------|----------|------|
| Toluene | 10.0 | 11.0 | 110 | 67 - 127 | |
| trans-1,3-Dichloropropene | 10.0 | 9.83 | 98 | 69 - 129 | |
| 1,1,2-Trichloroethane | 10.0 | 10.8 | 108 | 69 - 129 | |
| Tetrachloroethene | 10.0 | 11.4 | 114 | 70 - 130 | |
| Methyl Butyl Ketone (2-Hexanone) | 10.0 | 8.74 | 87 | 61 - 127 | |
| Dibromochloromethane | 10.0 | 10.2 | 102 | 66 - 130 | |
| 1,2-Dibromoethane | 10.0 | 10.8 | 108 | 70 - 130 | |
| Chlorobenzene | 10.0 | 10.4 | 104 | 68 - 128 | |
| Ethylbenzene | 10.0 | 9.81 | 98 | 68 - 128 | |
| m,p-Xylene | 20.0 | 20.2 | 101 | 68 - 128 | |
| Xylene, o- | 10.0 | 10.2 | 102 | 67 - 127 | |
| Styrene | 10.0 | 10.4 | 104 | 68 - 128 | |
| Bromoform | 10.0 | 8.58 | 86 | 34 - 170 | |
| Cumene | 10.0 | 10.2 | 102 | 67 - 127 | |
| 1,1,2,2-Tetrachloroethane | 10.0 | 9.80 | 98 | 69 - 129 | |
| n-Propylbenzene | 10.0 | 9.59 | 96 | 67 - 127 | |
| 4-Ethyltoluene | 10.0 | 9.95 | 100 | 69 - 129 | |
| 1,3,5-Trimethylbenzene | 10.0 | 10.0 | 100 | 65 - 125 | |
| 2-Chlorotoluene | 10.0 | 9.44 | 94 | 67 - 127 | |
| tert-Butylbenzene | 10.0 | 10.0 | 100 | 63 - 125 | |
| 1,2,4-Trimethylbenzene | 10.0 | 10.1 | 101 | 65 - 125 | |
| sec-Butylbenzene | 10.0 | 9.73 | 97 | 66 - 126 | |
| 4-Isopropyltoluene | 10.0 | 10.2 | 102 | 67 - 129 | |
| 1,3-Dichlorobenzene | 10.0 | 10.0 | 100 | 67 - 127 | |
| 1,4-Dichlorobenzene | 10.0 | 9.58 | 96 | 66 - 126 | |
| Benzyl chloride | 10.0 | 7.78 | 78 | 54 - 135 | |
| n-Butylbenzene | 10.0 | 9.21 | 92 | 67 - 127 | |
| 1,2-Dichlorobenzene | 10.0 | 10.3 | 103 | 67 - 127 | |
| 1,2,4-Trichlorobenzene | 10.0 | 10.2 | 102 | 59 - 126 | |
| Hexachlorobutadiene | 10.0 | 11.5 | 115 | 62 - 130 | |
| Naphthalene | 10.0 | 9.28 | 93 | 50 - 121 | |

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TESTAMERICA NYC
47-32 32ND PLACE,
SUITE 1141
LONG ISLAND CITY, NY 11101
UNITED STATES US

SHIP DATE: 29MAR17
ACTWGT: 35.00 LB
CAD: 101905570/NET3850
DIMS: 26x20x18 IN
BILL RECIPIENT

TO **SAMPLING RECEIVING BVT**
TESTAMERICA
30 COMMUNITY DR STE 11

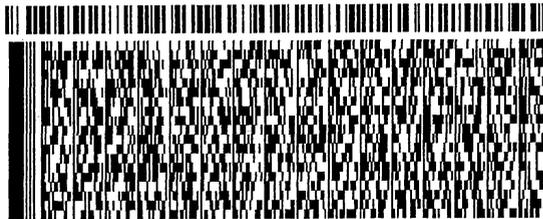
SOUTH BURLINGTON VT 05403

(802) 660-1990
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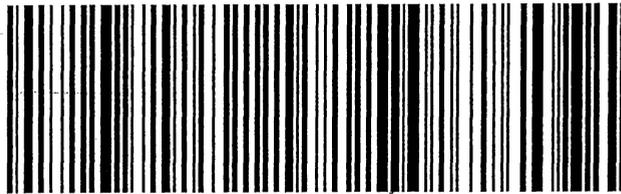
J17117021401ur

THU - 30 MAR 3:00P
STANDARD OVERNIGHT

TRK# 7787 7608 6462
0201

NA BTVA

05403
VT-US BTV



Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 200-38009-1

SDG Number: 200-38009-1

Login Number: 38009
List Number: 1
Creator: Asselin, Sarah E

List Source: TestAmerica Burlington

| Question | Answer | Comment |
|--|--------|--|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | True | Lab does not accept radioactive samples. |
| The cooler's custody seal, if present, is intact. | True | Not present |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | N/A | Thermal preservation not required. |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | N/A | Thermal preservation not required. |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | False | Refer to Job Narrative for details. |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | N/A | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

ANALYTICAL REPORT

Job Number: 200-38067-1

SDG Number: 200-38067-1

Job Description: American Museum of Natural History

For:
AKRF Inc
440 Park Avenue South
7th Floor
New York, NY 10016
Attention: Mr. Eric Park

Kristine Dusablon

Approved for release.
Kristine A Dusablon
Project Manager II
4/13/2017 12:51 PM

Kristine A Dusablon, Project Manager II
30 Community Drive, South Burlington, VT, 05403
(802)660-1990
kris.dusablon@testamericainc.com
04/13/2017

cc: Ms. Adrianna Bosco
Mr. Matthew Levy

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403
Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com



CASE NARRATIVE

Client: AKRF Inc

Project: American Museum of Natural History

Report Number: 200-38067-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 04/03/2017; the samples arrived in good condition.

VOLATILE ORGANIC COMPOUNDS

Sample SV-7-170330 was analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 04/12/2017 and 04/13/2017.

Samples SV-7-170330[9.89X] and SV-7-170330[98.9X] required dilution prior to analysis. The reporting limits have been adjusted accordingly. Both sets of results are reported in the data package submittal.

The continuing calibration verification (CCV) associated with batch 200-115748 recovered above the upper control limit for 1,2,4-Trichlorobenzene, Hexachlorobutadiene and Naphthalene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The laboratory control sample (LCS) for analytical batch 200-115748 recovered outside control limits for the 1,2,4-Trichlorobenzene, Hexachlorobutadiene and Naphthalene. These analytes were biased high in the LCS and were not detected in the associated sample; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|--------------------|--------|-----------|--------------------|---------|--------|
| 200-38067-1 | SV-7-170330 | | | | | |
| n-Butane | | 25 | | 4.9 | ppb v/v | TO-15 |
| n-Butane | | 58 | | 12 | ug/m3 | TO-15 |
| 1,3-Butadiene | | 6.8 | | 2.0 | ppb v/v | TO-15 |
| 1,3-Butadiene | | 15 | | 4.4 | ug/m3 | TO-15 |
| Acetone | | 1600 | D | 490 | ppb v/v | TO-15 |
| Acetone | | 3700 | D | 1200 | ug/m3 | TO-15 |
| Carbon disulfide | | 5.0 | | 4.9 | ppb v/v | TO-15 |
| Carbon disulfide | | 15 | | 15 | ug/m3 | TO-15 |
| n-Hexane | | 4.3 | | 2.0 | ppb v/v | TO-15 |
| n-Hexane | | 15 | | 7.0 | ug/m3 | TO-15 |
| Methyl Ethyl Ketone | | 11 | | 4.9 | ppb v/v | TO-15 |
| Methyl Ethyl Ketone | | 31 | | 15 | ug/m3 | TO-15 |
| Chloroform | | 2.2 | | 2.0 | ppb v/v | TO-15 |
| Chloroform | | 11 | | 9.7 | ug/m3 | TO-15 |
| Benzene | | 2.0 | | 2.0 | ppb v/v | TO-15 |
| Benzene | | 6.5 | | 6.3 | ug/m3 | TO-15 |
| n-Heptane | | 3.9 | | 2.0 | ppb v/v | TO-15 |
| n-Heptane | | 16 | | 8.1 | ug/m3 | TO-15 |
| Toluene | | 11 | | 2.0 | ppb v/v | TO-15 |
| Toluene | | 43 | | 7.5 | ug/m3 | TO-15 |
| Ethylbenzene | | 5.1 | | 2.0 | ppb v/v | TO-15 |
| Ethylbenzene | | 22 | | 8.6 | ug/m3 | TO-15 |
| m,p-Xylene | | 21 | | 4.9 | ppb v/v | TO-15 |
| m,p-Xylene | | 93 | | 21 | ug/m3 | TO-15 |
| Xylene, o- | | 9.5 | | 2.0 | ppb v/v | TO-15 |
| Xylene, o- | | 41 | | 8.6 | ug/m3 | TO-15 |
| Xylene (total) | | 31 | | 6.9 | ppb v/v | TO-15 |
| Xylene (total) | | 130 | | 30 | ug/m3 | TO-15 |
| n-Propylbenzene | | 2.1 | | 2.0 | ppb v/v | TO-15 |
| n-Propylbenzene | | 10 | | 9.7 | ug/m3 | TO-15 |
| 4-Ethyltoluene | | 2.8 | | 2.0 | ppb v/v | TO-15 |
| 4-Ethyltoluene | | 14 | | 9.7 | ug/m3 | TO-15 |
| 1,3,5-Trimethylbenzene | | 3.2 | | 2.0 | ppb v/v | TO-15 |
| 1,3,5-Trimethylbenzene | | 16 | | 9.7 | ug/m3 | TO-15 |
| 1,2,4-Trimethylbenzene | | 9.9 | | 2.0 | ppb v/v | TO-15 |
| 1,2,4-Trimethylbenzene | | 49 | | 9.7 | ug/m3 | TO-15 |

METHOD SUMMARY

Client: AKRF Inc

Job Number: 200-38067-1
Sdg Number: 200-38067-1

| Description | Lab Location | Method | Preparation Method |
|--|---------------------|---------------|---------------------------|
| Matrix: Air | | | |
| Volatile Organic Compounds in Ambient Air Collection via Summa Canister | TAL BUR TAL BUR | EPA TO-15 | Summa Canister |

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

| Method | Analyst | Analyst ID |
|---------------|-----------------------|-------------------|
| EPA TO-15 | Desjardins, William R | WRD |

SAMPLE SUMMARY

Client: AKRF Inc

Job Number: 200-38067-1
Sdg Number: 200-38067-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|----------------------|-------------------------|----------------------|------------------------------|-------------------------------|
| 200-38067-1 | SV-7-170330 | Air | 03/30/2017 0950 | 04/03/2017 0930 |

SAMPLE RESULTS

Analytical Data

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

Client Sample ID: SV-7-170330

Lab Sample ID: 200-38067-1

Date Sampled: 03/30/2017 0950

Client Matrix: Air

Date Received: 04/03/2017 0930

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115748 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24704_15.D |
| Dilution: | 9.89 | | | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 04/12/2017 2340 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/12/2017 2340 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|-------------------------------|------------------|-----------|------|
| Dichlorodifluoromethane | 4.9 | U | 4.9 |
| Freon 22 | 4.9 | U | 4.9 |
| 1,2-Dichlorotetrafluoroethane | 2.0 | U | 2.0 |
| Chloromethane | 4.9 | U | 4.9 |
| n-Butane | 25 | | 4.9 |
| Vinyl chloride | 0.40 | U | 0.40 |
| 1,3-Butadiene | 6.8 | | 2.0 |
| Bromomethane | 2.0 | U | 2.0 |
| Chloroethane | 4.9 | U | 4.9 |
| Bromoethene(Vinyl Bromide) | 2.0 | U | 2.0 |
| Trichlorofluoromethane | 2.0 | U | 2.0 |
| Freon TF | 2.0 | U | 2.0 |
| 1,1-Dichloroethene | 2.0 | U | 2.0 |
| Acetone | 1900 | E | 49 |
| Isopropyl alcohol | 49 | U | 49 |
| Carbon disulfide | 5.0 | | 4.9 |
| 3-Chloropropene | 4.9 | U | 4.9 |
| Methylene Chloride | 4.9 | U | 4.9 |
| tert-Butyl alcohol | 49 | U | 49 |
| Methyl tert-butyl ether | 2.0 | U | 2.0 |
| trans-1,2-Dichloroethene | 2.0 | U | 2.0 |
| n-Hexane | 4.3 | | 2.0 |
| 1,1-Dichloroethane | 2.0 | U | 2.0 |
| Methyl Ethyl Ketone | 11 | | 4.9 |
| cis-1,2-Dichloroethene | 2.0 | U | 2.0 |
| 1,2-Dichloroethene, Total | 4.0 | U | 4.0 |
| Chloroform | 2.2 | | 2.0 |
| Tetrahydrofuran | 49 | U | 49 |
| 1,1,1-Trichloroethane | 2.0 | U | 2.0 |
| Cyclohexane | 2.0 | U | 2.0 |
| Carbon tetrachloride | 0.40 | U | 0.40 |
| 2,2,4-Trimethylpentane | 2.0 | U | 2.0 |
| Benzene | 2.0 | | 2.0 |
| 1,2-Dichloroethane | 2.0 | U | 2.0 |
| n-Heptane | 3.9 | | 2.0 |
| Trichloroethene | 0.40 | U | 0.40 |
| Methyl methacrylate | 4.9 | U | 4.9 |
| 1,2-Dichloropropane | 2.0 | U | 2.0 |
| 1,4-Dioxane | 49 | U | 49 |
| Bromodichloromethane | 2.0 | U | 2.0 |
| cis-1,3-Dichloropropene | 2.0 | U | 2.0 |
| methyl isobutyl ketone | 4.9 | U | 4.9 |
| Toluene | 11 | | 2.0 |
| trans-1,3-Dichloropropene | 2.0 | U | 2.0 |
| 1,1,2-Trichloroethane | 2.0 | U | 2.0 |
| Tetrachloroethene | 2.0 | U | 2.0 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

Client Sample ID: SV-7-170330

Lab Sample ID: 200-38067-1

Date Sampled: 03/30/2017 0950

Client Matrix: Air

Date Received: 04/03/2017 0930

TO-15 Volatile Organic Compounds in Ambient Air

| | | | |
|--------------------------------|----------------------------|-------------------------------|--|
| Analysis Method: TO-15 | Analysis Batch: 200-115748 | Instrument ID: CHX.i | |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24704_15.D | |
| Dilution: 9.89 | | Initial Weight/Volume: 200 mL | |
| Analysis Date: 04/12/2017 2340 | | Final Weight/Volume: 200 mL | |
| Prep Date: 04/12/2017 2340 | | Injection Volume: 200 mL | |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|----------------------------------|------------------|-----------|-----|
| Methyl Butyl Ketone (2-Hexanone) | 4.9 | U | 4.9 |
| Dibromochloromethane | 2.0 | U | 2.0 |
| 1,2-Dibromoethane | 2.0 | U | 2.0 |
| Chlorobenzene | 2.0 | U | 2.0 |
| Ethylbenzene | 5.1 | | 2.0 |
| m,p-Xylene | 21 | | 4.9 |
| Xylene, o- | 9.5 | | 2.0 |
| Xylene (total) | 31 | | 6.9 |
| Styrene | 2.0 | U | 2.0 |
| Bromoform | 2.0 | U | 2.0 |
| Cumene | 2.0 | U | 2.0 |
| 1,1,2,2-Tetrachloroethane | 2.0 | U | 2.0 |
| n-Propylbenzene | 2.1 | | 2.0 |
| 4-Ethyltoluene | 2.8 | | 2.0 |
| 1,3,5-Trimethylbenzene | 3.2 | | 2.0 |
| 2-Chlorotoluene | 2.0 | U | 2.0 |
| tert-Butylbenzene | 2.0 | U | 2.0 |
| 1,2,4-Trimethylbenzene | 9.9 | | 2.0 |
| sec-Butylbenzene | 2.0 | U | 2.0 |
| 4-Isopropyltoluene | 2.0 | U | 2.0 |
| 1,3-Dichlorobenzene | 2.0 | U | 2.0 |
| 1,4-Dichlorobenzene | 2.0 | U | 2.0 |
| Benzyl chloride | 2.0 | U | 2.0 |
| n-Butylbenzene | 2.0 | U | 2.0 |
| 1,2-Dichlorobenzene | 2.0 | U | 2.0 |
| 1,2,4-Trichlorobenzene | 4.9 | U * | 4.9 |
| Hexachlorobutadiene | 2.0 | U * | 2.0 |
| Naphthalene | 4.9 | U * | 4.9 |

| Analyte | Result (ug/m3) | Qualifier | RL |
|-------------------------------|----------------|-----------|-----|
| Dichlorodifluoromethane | 24 | U | 24 |
| Freon 22 | 17 | U | 17 |
| 1,2-Dichlorotetrafluoroethane | 14 | U | 14 |
| Chloromethane | 10 | U | 10 |
| n-Butane | 58 | | 12 |
| Vinyl chloride | 1.0 | U | 1.0 |
| 1,3-Butadiene | 15 | | 4.4 |
| Bromomethane | 7.7 | U | 7.7 |
| Chloroethane | 13 | U | 13 |
| Bromoethene(Vinyl Bromide) | 8.7 | U | 8.7 |
| Trichlorofluoromethane | 11 | U | 11 |
| Freon TF | 15 | U | 15 |
| 1,1-Dichloroethene | 7.8 | U | 7.8 |
| Acetone | 4500 | E | 120 |
| Isopropyl alcohol | 120 | U | 120 |
| Carbon disulfide | 15 | | 15 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

Client Sample ID: SV-7-170330

Lab Sample ID: 200-38067-1

Date Sampled: 03/30/2017 0950

Client Matrix: Air

Date Received: 04/03/2017 0930

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115748 | Instrument ID: CHX.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24704_15.D |
| Dilution: 9.89 | | Initial Weight/Volume: 200 mL |
| Analysis Date: 04/12/2017 2340 | | Final Weight/Volume: 200 mL |
| Prep Date: 04/12/2017 2340 | | Injection Volume: 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|----------------------------------|----------------|-----------|-----|
| 3-Chloropropene | 15 | U | 15 |
| Methylene Chloride | 17 | U | 17 |
| tert-Butyl alcohol | 150 | U | 150 |
| Methyl tert-butyl ether | 7.1 | U | 7.1 |
| trans-1,2-Dichloroethene | 7.8 | U | 7.8 |
| n-Hexane | 15 | | 7.0 |
| 1,1-Dichloroethane | 8.0 | U | 8.0 |
| Methyl Ethyl Ketone | 31 | | 15 |
| cis-1,2-Dichloroethene | 7.8 | U | 7.8 |
| 1,2-Dichloroethene, Total | 16 | U | 16 |
| Chloroform | 11 | | 9.7 |
| Tetrahydrofuran | 150 | U | 150 |
| 1,1,1-Trichloroethane | 11 | U | 11 |
| Cyclohexane | 6.8 | U | 6.8 |
| Carbon tetrachloride | 2.5 | U | 2.5 |
| 2,2,4-Trimethylpentane | 9.2 | U | 9.2 |
| Benzene | 6.5 | | 6.3 |
| 1,2-Dichloroethane | 8.0 | U | 8.0 |
| n-Heptane | 16 | | 8.1 |
| Trichloroethene | 2.1 | U | 2.1 |
| Methyl methacrylate | 20 | U | 20 |
| 1,2-Dichloropropane | 9.1 | U | 9.1 |
| 1,4-Dioxane | 180 | U | 180 |
| Bromodichloromethane | 13 | U | 13 |
| cis-1,3-Dichloropropene | 9.0 | U | 9.0 |
| methyl isobutyl ketone | 20 | U | 20 |
| Toluene | 43 | | 7.5 |
| trans-1,3-Dichloropropene | 9.0 | U | 9.0 |
| 1,1,2-Trichloroethane | 11 | U | 11 |
| Tetrachloroethene | 13 | U | 13 |
| Methyl Butyl Ketone (2-Hexanone) | 20 | U | 20 |
| Dibromochloromethane | 17 | U | 17 |
| 1,2-Dibromoethane | 15 | U | 15 |
| Chlorobenzene | 9.1 | U | 9.1 |
| Ethylbenzene | 22 | | 8.6 |
| m,p-Xylene | 93 | | 21 |
| Xylene, o- | 41 | | 8.6 |
| Xylene (total) | 130 | | 30 |
| Styrene | 8.4 | U | 8.4 |
| Bromoform | 20 | U | 20 |
| Cumene | 9.7 | U | 9.7 |
| 1,1,2,2-Tetrachloroethane | 14 | U | 14 |
| n-Propylbenzene | 10 | | 9.7 |
| 4-Ethyltoluene | 14 | | 9.7 |
| 1,3,5-Trimethylbenzene | 16 | | 9.7 |
| 2-Chlorotoluene | 10 | U | 10 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

Client Sample ID: SV-7-170330

Lab Sample ID: 200-38067-1

Date Sampled: 03/30/2017 0950

Client Matrix: Air

Date Received: 04/03/2017 0930

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115748 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24704_15.D |
| Dilution: | 9.89 | | | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 04/12/2017 2340 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/12/2017 2340 | | | Injection Volume: | 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|------------------------|----------------|-----------|-----|
| tert-Butylbenzene | 11 | U | 11 |
| 1,2,4-Trimethylbenzene | 49 | | 9.7 |
| sec-Butylbenzene | 11 | U | 11 |
| 4-Isopropyltoluene | 11 | U | 11 |
| 1,3-Dichlorobenzene | 12 | U | 12 |
| 1,4-Dichlorobenzene | 12 | U | 12 |
| Benzyl chloride | 10 | U | 10 |
| n-Butylbenzene | 11 | U | 11 |
| 1,2-Dichlorobenzene | 12 | U | 12 |
| 1,2,4-Trichlorobenzene | 37 | U * | 37 |
| Hexachlorobutadiene | 21 | U * | 21 |
| Naphthalene | 26 | U * | 26 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

Client Sample ID: SV-7-170330

Lab Sample ID: 200-38067-1

Date Sampled: 03/30/2017 0950

Client Matrix: Air

Date Received: 04/03/2017 0930

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15

Analysis Batch: 200-115748

Instrument ID: CHX.i

Prep Method: Summa Canister

Prep Batch: N/A

Lab File ID: 24704_15.D

Dilution: 9.89

Initial Weight/Volume: 200 mL

Analysis Date: 04/12/2017 2340

Final Weight/Volume: 200 mL

Prep Date: 04/12/2017 2340

Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 2

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------|-------|-----------------------|-----------|
| | Unknown | 4.05 | 16 | J |
| | Unknown | 24.04 | 13 | J |

Analytical Data

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

Client Sample ID: SV-7-170330

Lab Sample ID: 200-38067-1

Date Sampled: 03/30/2017 0950

Client Matrix: Air

Date Received: 04/03/2017 0930

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115748 | Instrument ID: CHX.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24704_16.D |
| Dilution: 98.9 | | Initial Weight/Volume: 20 mL |
| Analysis Date: 04/13/2017 0030 | Run Type: DL | Final Weight/Volume: 200 mL |
| Prep Date: 04/13/2017 0030 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|-------------------------------|------------------|-----------|-----|
| Dichlorodifluoromethane | 49 | U | 49 |
| Freon 22 | 49 | U | 49 |
| 1,2-Dichlorotetrafluoroethane | 20 | U | 20 |
| Chloromethane | 49 | U | 49 |
| n-Butane | 49 | U | 49 |
| Vinyl chloride | 4.0 | U | 4.0 |
| 1,3-Butadiene | 20 | U | 20 |
| Bromomethane | 20 | U | 20 |
| Chloroethane | 49 | U | 49 |
| Bromoethene(Vinyl Bromide) | 20 | U | 20 |
| Trichlorofluoromethane | 20 | U | 20 |
| Freon TF | 20 | U | 20 |
| 1,1-Dichloroethene | 20 | U | 20 |
| Acetone | 1600 | D | 490 |
| Isopropyl alcohol | 490 | U | 490 |
| Carbon disulfide | 49 | U | 49 |
| 3-Chloropropene | 49 | U | 49 |
| Methylene Chloride | 49 | U | 49 |
| tert-Butyl alcohol | 490 | U | 490 |
| Methyl tert-butyl ether | 20 | U | 20 |
| trans-1,2-Dichloroethene | 20 | U | 20 |
| n-Hexane | 20 | U | 20 |
| 1,1-Dichloroethane | 20 | U | 20 |
| Methyl Ethyl Ketone | 49 | U | 49 |
| cis-1,2-Dichloroethene | 20 | U | 20 |
| 1,2-Dichloroethene, Total | 40 | U | 40 |
| Chloroform | 20 | U | 20 |
| Tetrahydrofuran | 490 | U | 490 |
| 1,1,1-Trichloroethane | 20 | U | 20 |
| Cyclohexane | 20 | U | 20 |
| Carbon tetrachloride | 4.0 | U | 4.0 |
| 2,2,4-Trimethylpentane | 20 | U | 20 |
| Benzene | 20 | U | 20 |
| 1,2-Dichloroethane | 20 | U | 20 |
| n-Heptane | 20 | U | 20 |
| Trichloroethene | 4.0 | U | 4.0 |
| Methyl methacrylate | 49 | U | 49 |
| 1,2-Dichloropropane | 20 | U | 20 |
| 1,4-Dioxane | 490 | U | 490 |
| Bromodichloromethane | 20 | U | 20 |
| cis-1,3-Dichloropropene | 20 | U | 20 |
| methyl isobutyl ketone | 49 | U | 49 |
| Toluene | 20 | U | 20 |
| trans-1,3-Dichloropropene | 20 | U | 20 |
| 1,1,2-Trichloroethane | 20 | U | 20 |
| Tetrachloroethene | 20 | U | 20 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

Client Sample ID: SV-7-170330

Lab Sample ID: 200-38067-1

Date Sampled: 03/30/2017 0950

Client Matrix: Air

Date Received: 04/03/2017 0930

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115748 | Instrument ID: CHX.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24704_16.D |
| Dilution: 98.9 | | Initial Weight/Volume: 20 mL |
| Analysis Date: 04/13/2017 0030 | Run Type: DL | Final Weight/Volume: 200 mL |
| Prep Date: 04/13/2017 0030 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | RL |
|----------------------------------|------------------|-----------|----|
| Methyl Butyl Ketone (2-Hexanone) | 49 | U | 49 |
| Dibromochloromethane | 20 | U | 20 |
| 1,2-Dibromoethane | 20 | U | 20 |
| Chlorobenzene | 20 | U | 20 |
| Ethylbenzene | 20 | U | 20 |
| m,p-Xylene | 49 | U | 49 |
| Xylene, o- | 20 | U | 20 |
| Xylene (total) | 69 | U | 69 |
| Styrene | 20 | U | 20 |
| Bromoform | 20 | U | 20 |
| Cumene | 20 | U | 20 |
| 1,1,2,2-Tetrachloroethane | 20 | U | 20 |
| n-Propylbenzene | 20 | U | 20 |
| 4-Ethyltoluene | 20 | U | 20 |
| 1,3,5-Trimethylbenzene | 20 | U | 20 |
| 2-Chlorotoluene | 20 | U | 20 |
| tert-Butylbenzene | 20 | U | 20 |
| 1,2,4-Trimethylbenzene | 20 | U | 20 |
| sec-Butylbenzene | 20 | U | 20 |
| 4-Isopropyltoluene | 20 | U | 20 |
| 1,3-Dichlorobenzene | 20 | U | 20 |
| 1,4-Dichlorobenzene | 20 | U | 20 |
| Benzyl chloride | 20 | U | 20 |
| n-Butylbenzene | 20 | U | 20 |
| 1,2-Dichlorobenzene | 20 | U | 20 |
| 1,2,4-Trichlorobenzene | 49 | U * | 49 |
| Hexachlorobutadiene | 20 | U * | 20 |
| Naphthalene | 49 | U * | 49 |

| Analyte | Result (ug/m3) | Qualifier | RL |
|-------------------------------|----------------|-----------|------|
| Dichlorodifluoromethane | 240 | U | 240 |
| Freon 22 | 170 | U | 170 |
| 1,2-Dichlorotetrafluoroethane | 140 | U | 140 |
| Chloromethane | 100 | U | 100 |
| n-Butane | 120 | U | 120 |
| Vinyl chloride | 10 | U | 10 |
| 1,3-Butadiene | 44 | U | 44 |
| Bromomethane | 77 | U | 77 |
| Chloroethane | 130 | U | 130 |
| Bromoethene(Vinyl Bromide) | 87 | U | 87 |
| Trichlorofluoromethane | 110 | U | 110 |
| Freon TF | 150 | U | 150 |
| 1,1-Dichloroethene | 78 | U | 78 |
| Acetone | 3700 | D | 1200 |
| Isopropyl alcohol | 1200 | U | 1200 |
| Carbon disulfide | 150 | U | 150 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

Client Sample ID: SV-7-170330

Lab Sample ID: 200-38067-1

Date Sampled: 03/30/2017 0950

Client Matrix: Air

Date Received: 04/03/2017 0930

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115748 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24704_16.D |
| Dilution: | 98.9 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/13/2017 0030 | Run Type: | DL | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/13/2017 0030 | | | Injection Volume: | 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|----------------------------------|----------------|-----------|------|
| 3-Chloropropene | 150 | U | 150 |
| Methylene Chloride | 170 | U | 170 |
| tert-Butyl alcohol | 1500 | U | 1500 |
| Methyl tert-butyl ether | 71 | U | 71 |
| trans-1,2-Dichloroethene | 78 | U | 78 |
| n-Hexane | 70 | U | 70 |
| 1,1-Dichloroethane | 80 | U | 80 |
| Methyl Ethyl Ketone | 150 | U | 150 |
| cis-1,2-Dichloroethene | 78 | U | 78 |
| 1,2-Dichloroethene, Total | 160 | U | 160 |
| Chloroform | 97 | U | 97 |
| Tetrahydrofuran | 1500 | U | 1500 |
| 1,1,1-Trichloroethane | 110 | U | 110 |
| Cyclohexane | 68 | U | 68 |
| Carbon tetrachloride | 25 | U | 25 |
| 2,2,4-Trimethylpentane | 92 | U | 92 |
| Benzene | 63 | U | 63 |
| 1,2-Dichloroethane | 80 | U | 80 |
| n-Heptane | 81 | U | 81 |
| Trichloroethene | 21 | U | 21 |
| Methyl methacrylate | 200 | U | 200 |
| 1,2-Dichloropropane | 91 | U | 91 |
| 1,4-Dioxane | 1800 | U | 1800 |
| Bromodichloromethane | 130 | U | 130 |
| cis-1,3-Dichloropropene | 90 | U | 90 |
| methyl isobutyl ketone | 200 | U | 200 |
| Toluene | 75 | U | 75 |
| trans-1,3-Dichloropropene | 90 | U | 90 |
| 1,1,2-Trichloroethane | 110 | U | 110 |
| Tetrachloroethene | 130 | U | 130 |
| Methyl Butyl Ketone (2-Hexanone) | 200 | U | 200 |
| Dibromochloromethane | 170 | U | 170 |
| 1,2-Dibromoethane | 150 | U | 150 |
| Chlorobenzene | 91 | U | 91 |
| Ethylbenzene | 86 | U | 86 |
| m,p-Xylene | 210 | U | 210 |
| Xylene, o- | 86 | U | 86 |
| Xylene (total) | 300 | U | 300 |
| Styrene | 84 | U | 84 |
| Bromoform | 200 | U | 200 |
| Cumene | 97 | U | 97 |
| 1,1,2,2-Tetrachloroethane | 140 | U | 140 |
| n-Propylbenzene | 97 | U | 97 |
| 4-Ethyltoluene | 97 | U | 97 |
| 1,3,5-Trimethylbenzene | 97 | U | 97 |
| 2-Chlorotoluene | 100 | U | 100 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

Client Sample ID: SV-7-170330

Lab Sample ID: 200-38067-1

Date Sampled: 03/30/2017 0950

Client Matrix: Air

Date Received: 04/03/2017 0930

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115748 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24704_16.D |
| Dilution: | 98.9 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/13/2017 0030 | Run Type: | DL | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/13/2017 0030 | | | Injection Volume: | 200 mL |

| Analyte | Result (ug/m3) | Qualifier | RL |
|------------------------|----------------|-----------|-----|
| tert-Butylbenzene | 110 | U | 110 |
| 1,2,4-Trimethylbenzene | 97 | U | 97 |
| sec-Butylbenzene | 110 | U | 110 |
| 4-Isopropyltoluene | 110 | U | 110 |
| 1,3-Dichlorobenzene | 120 | U | 120 |
| 1,4-Dichlorobenzene | 120 | U | 120 |
| Benzyl chloride | 100 | U | 100 |
| n-Butylbenzene | 110 | U | 110 |
| 1,2-Dichlorobenzene | 120 | U | 120 |
| 1,2,4-Trichlorobenzene | 370 | U * | 370 |
| Hexachlorobutadiene | 210 | U * | 210 |
| Naphthalene | 260 | U * | 260 |

Analytical Data

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

Client Sample ID: SV-7-170330

Lab Sample ID: 200-38067-1

Date Sampled: 03/30/2017 0950

Client Matrix: Air

Date Received: 04/03/2017 0930

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115748 | Instrument ID: | CHX.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24704_16.D |
| Dilution: | 98.9 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 04/13/2017 0030 | Run Type: | DL | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/13/2017 0030 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

DATA REPORTING QUALIFIERS

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

| Lab Section | Qualifier | Description |
|--------------------|------------------|---|
| Air - GC/MS VOA | J | Indicates an Estimated Value for TICs |
| | U | Indicates the analyte was analyzed for but not detected. |
| | * | LCS or LCSD is outside acceptance limits. |
| | E | Result exceeded calibration range. |
| | D | Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples. |

QUALITY CONTROL RESULTS

Quality Control Results

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|--------------------|--------------|---------------|--------|------------|
| Air - GC/MS VOA | | | | | |
| Analysis Batch:200-115748 | | | | | |
| LCS 200-115748/4 | Lab Control Sample | T | Air | TO-15 | |
| MB 200-115748/5 | Method Blank | T | Air | TO-15 | |
| 200-38067-1 | SV-7-170330 | T | Air | TO-15 | |
| 200-38067-1DL | SV-7-170330 | T | Air | TO-15 | |

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

Method Blank - Batch: 200-115748

Method: TO-15

Preparation: Summa Canister

Lab Sample ID: MB 200-115748/5
 Client Matrix: Air
 Dilution: 1.0
 Analysis Date: 04/12/2017 1501
 Prep Date: 04/12/2017 1501
 Leach Date: N/A

Analysis Batch: 200-115748
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ppb v/v

Instrument ID: CHX.i
 Lab File ID: 24704_05.D
 Initial Weight/Volume: 200 mL
 Final Weight/Volume: 200 mL
 Injection Volume: 200 mL

| Analyte | Result | Qual | RL |
|-------------------------------|--------|------|-------|
| Dichlorodifluoromethane | 0.50 | U | 0.50 |
| Freon 22 | 0.50 | U | 0.50 |
| 1,2-Dichlorotetrafluoroethane | 0.20 | U | 0.20 |
| Chloromethane | 0.50 | U | 0.50 |
| n-Butane | 0.50 | U | 0.50 |
| Vinyl chloride | 0.040 | U | 0.040 |
| 1,3-Butadiene | 0.20 | U | 0.20 |
| Bromomethane | 0.20 | U | 0.20 |
| Chloroethane | 0.50 | U | 0.50 |
| Bromoethene(Vinyl Bromide) | 0.20 | U | 0.20 |
| Trichlorofluoromethane | 0.20 | U | 0.20 |
| Freon TF | 0.20 | U | 0.20 |
| 1,1-Dichloroethene | 0.20 | U | 0.20 |
| Acetone | 5.0 | U | 5.0 |
| Isopropyl alcohol | 5.0 | U | 5.0 |
| Carbon disulfide | 0.50 | U | 0.50 |
| 3-Chloropropene | 0.50 | U | 0.50 |
| Methylene Chloride | 0.50 | U | 0.50 |
| tert-Butyl alcohol | 5.0 | U | 5.0 |
| Methyl tert-butyl ether | 0.20 | U | 0.20 |
| trans-1,2-Dichloroethene | 0.20 | U | 0.20 |
| n-Hexane | 0.20 | U | 0.20 |
| 1,1-Dichloroethane | 0.20 | U | 0.20 |
| Methyl Ethyl Ketone | 0.50 | U | 0.50 |
| cis-1,2-Dichloroethene | 0.20 | U | 0.20 |
| 1,2-Dichloroethene, Total | 0.40 | U | 0.40 |
| Chloroform | 0.20 | U | 0.20 |
| Tetrahydrofuran | 5.0 | U | 5.0 |
| 1,1,1-Trichloroethane | 0.20 | U | 0.20 |
| Cyclohexane | 0.20 | U | 0.20 |
| Carbon tetrachloride | 0.040 | U | 0.040 |
| 2,2,4-Trimethylpentane | 0.20 | U | 0.20 |
| Benzene | 0.20 | U | 0.20 |
| 1,2-Dichloroethane | 0.20 | U | 0.20 |
| n-Heptane | 0.20 | U | 0.20 |
| Trichloroethene | 0.040 | U | 0.040 |
| Methyl methacrylate | 0.50 | U | 0.50 |
| 1,2-Dichloropropane | 0.20 | U | 0.20 |
| 1,4-Dioxane | 5.0 | U | 5.0 |
| Bromodichloromethane | 0.20 | U | 0.20 |
| cis-1,3-Dichloropropene | 0.20 | U | 0.20 |
| methyl isobutyl ketone | 0.50 | U | 0.50 |
| Toluene | 0.20 | U | 0.20 |
| trans-1,3-Dichloropropene | 0.20 | U | 0.20 |
| 1,1,2-Trichloroethane | 0.20 | U | 0.20 |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38067-1
Sdg Number: 200-38067-1

Method Blank - Batch: 200-115748

Method: TO-15

Preparation: Summa Canister

Lab Sample ID: MB 200-115748/5
Client Matrix: Air
Dilution: 1.0
Analysis Date: 04/12/2017 1501
Prep Date: 04/12/2017 1501
Leach Date: N/A

Analysis Batch: 200-115748
Prep Batch: N/A
Leach Batch: N/A
Units: ppb v/v

Instrument ID: CHX.i
Lab File ID: 24704_05.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | RL |
|----------------------------------|--------|------|------|
| Tetrachloroethene | 0.20 | U | 0.20 |
| Methyl Butyl Ketone (2-Hexanone) | 0.50 | U | 0.50 |
| Dibromochloromethane | 0.20 | U | 0.20 |
| 1,2-Dibromoethane | 0.20 | U | 0.20 |
| Chlorobenzene | 0.20 | U | 0.20 |
| Ethylbenzene | 0.20 | U | 0.20 |
| m,p-Xylene | 0.50 | U | 0.50 |
| Xylene, o- | 0.20 | U | 0.20 |
| Xylene (total) | 0.70 | U | 0.70 |
| Styrene | 0.20 | U | 0.20 |
| Bromoform | 0.20 | U | 0.20 |
| Cumene | 0.20 | U | 0.20 |
| 1,1,2,2-Tetrachloroethane | 0.20 | U | 0.20 |
| n-Propylbenzene | 0.20 | U | 0.20 |
| 4-Ethyltoluene | 0.20 | U | 0.20 |
| 1,3,5-Trimethylbenzene | 0.20 | U | 0.20 |
| 2-Chlorotoluene | 0.20 | U | 0.20 |
| tert-Butylbenzene | 0.20 | U | 0.20 |
| 1,2,4-Trimethylbenzene | 0.20 | U | 0.20 |
| sec-Butylbenzene | 0.20 | U | 0.20 |
| 4-Isopropyltoluene | 0.20 | U | 0.20 |
| 1,3-Dichlorobenzene | 0.20 | U | 0.20 |
| 1,4-Dichlorobenzene | 0.20 | U | 0.20 |
| Benzyl chloride | 0.20 | U | 0.20 |
| n-Butylbenzene | 0.20 | U | 0.20 |
| 1,2-Dichlorobenzene | 0.20 | U | 0.20 |
| 1,2,4-Trichlorobenzene | 0.50 | U | 0.50 |
| Hexachlorobutadiene | 0.20 | U | 0.20 |
| Naphthalene | 0.50 | U | 0.50 |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

Method Blank - Batch: 200-115748

Method: TO-15

Preparation: Summa Canister

Lab Sample ID: MB 200-115748/5
Client Matrix: Air
Dilution: 1.0
Analysis Date: 04/12/2017 1501
Prep Date: 04/12/2017 1501
Leach Date: N/A

Analysis Batch: 200-115748
Prep Batch: N/A
Leach Batch: N/A
Units: ug/m3

Instrument ID: CHX.i
Lab File ID: 24704_05.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | RL |
|-------------------------------|--------|------|------|
| Dichlorodifluoromethane | 2.5 | U | 2.5 |
| Freon 22 | 1.8 | U | 1.8 |
| 1,2-Dichlorotetrafluoroethane | 1.4 | U | 1.4 |
| Chloromethane | 1.0 | U | 1.0 |
| n-Butane | 1.2 | U | 1.2 |
| Vinyl chloride | 0.10 | U | 0.10 |
| 1,3-Butadiene | 0.44 | U | 0.44 |
| Bromomethane | 0.78 | U | 0.78 |
| Chloroethane | 1.3 | U | 1.3 |
| Bromoethene(Vinyl Bromide) | 0.87 | U | 0.87 |
| Trichlorofluoromethane | 1.1 | U | 1.1 |
| Freon TF | 1.5 | U | 1.5 |
| 1,1-Dichloroethene | 0.79 | U | 0.79 |
| Acetone | 12 | U | 12 |
| Isopropyl alcohol | 12 | U | 12 |
| Carbon disulfide | 1.6 | U | 1.6 |
| 3-Chloropropene | 1.6 | U | 1.6 |
| Methylene Chloride | 1.7 | U | 1.7 |
| tert-Butyl alcohol | 15 | U | 15 |
| Methyl tert-butyl ether | 0.72 | U | 0.72 |
| trans-1,2-Dichloroethene | 0.79 | U | 0.79 |
| n-Hexane | 0.70 | U | 0.70 |
| 1,1-Dichloroethane | 0.81 | U | 0.81 |
| Methyl Ethyl Ketone | 1.5 | U | 1.5 |
| cis-1,2-Dichloroethene | 0.79 | U | 0.79 |
| 1,2-Dichloroethene, Total | 1.6 | U | 1.6 |
| Chloroform | 0.98 | U | 0.98 |
| Tetrahydrofuran | 15 | U | 15 |
| 1,1,1-Trichloroethane | 1.1 | U | 1.1 |
| Cyclohexane | 0.69 | U | 0.69 |
| Carbon tetrachloride | 0.25 | U | 0.25 |
| 2,2,4-Trimethylpentane | 0.93 | U | 0.93 |
| Benzene | 0.64 | U | 0.64 |
| 1,2-Dichloroethane | 0.81 | U | 0.81 |
| n-Heptane | 0.82 | U | 0.82 |
| Trichloroethene | 0.21 | U | 0.21 |
| Methyl methacrylate | 2.0 | U | 2.0 |
| 1,2-Dichloropropane | 0.92 | U | 0.92 |
| 1,4-Dioxane | 18 | U | 18 |
| Bromodichloromethane | 1.3 | U | 1.3 |
| cis-1,3-Dichloropropene | 0.91 | U | 0.91 |
| methyl isobutyl ketone | 2.0 | U | 2.0 |
| Toluene | 0.75 | U | 0.75 |
| trans-1,3-Dichloropropene | 0.91 | U | 0.91 |
| 1,1,2-Trichloroethane | 1.1 | U | 1.1 |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38067-1

Sdg Number: 200-38067-1

Method Blank - Batch: 200-115748

Method: TO-15

Preparation: Summa Canister

Lab Sample ID: MB 200-115748/5
 Client Matrix: Air
 Dilution: 1.0
 Analysis Date: 04/12/2017 1501
 Prep Date: 04/12/2017 1501
 Leach Date: N/A

Analysis Batch: 200-115748
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/m3

Instrument ID: CHX.i
 Lab File ID: 24704_05.D
 Initial Weight/Volume: 200 mL
 Final Weight/Volume: 200 mL
 Injection Volume: 200 mL

| Analyte | Result | Qual | RL |
|----------------------------------|--------|------|------|
| Tetrachloroethene | 1.4 | U | 1.4 |
| Methyl Butyl Ketone (2-Hexanone) | 2.0 | U | 2.0 |
| Dibromochloromethane | 1.7 | U | 1.7 |
| 1,2-Dibromoethane | 1.5 | U | 1.5 |
| Chlorobenzene | 0.92 | U | 0.92 |
| Ethylbenzene | 0.87 | U | 0.87 |
| m,p-Xylene | 2.2 | U | 2.2 |
| Xylene, o- | 0.87 | U | 0.87 |
| Xylene (total) | 3.0 | U | 3.0 |
| Styrene | 0.85 | U | 0.85 |
| Bromoform | 2.1 | U | 2.1 |
| Cumene | 0.98 | U | 0.98 |
| 1,1,2,2-Tetrachloroethane | 1.4 | U | 1.4 |
| n-Propylbenzene | 0.98 | U | 0.98 |
| 4-Ethyltoluene | 0.98 | U | 0.98 |
| 1,3,5-Trimethylbenzene | 0.98 | U | 0.98 |
| 2-Chlorotoluene | 1.0 | U | 1.0 |
| tert-Butylbenzene | 1.1 | U | 1.1 |
| 1,2,4-Trimethylbenzene | 0.98 | U | 0.98 |
| sec-Butylbenzene | 1.1 | U | 1.1 |
| 4-Isopropyltoluene | 1.1 | U | 1.1 |
| 1,3-Dichlorobenzene | 1.2 | U | 1.2 |
| 1,4-Dichlorobenzene | 1.2 | U | 1.2 |
| Benzyl chloride | 1.0 | U | 1.0 |
| n-Butylbenzene | 1.1 | U | 1.1 |
| 1,2-Dichlorobenzene | 1.2 | U | 1.2 |
| 1,2,4-Trichlorobenzene | 3.7 | U | 3.7 |
| Hexachlorobutadiene | 2.1 | U | 2.1 |
| Naphthalene | 2.6 | U | 2.6 |

Method Blank TICs- Batch: 200-115748

| Cas Number | Analyte | RT | Est. Result (ppb) | Qual |
|------------|---------------------------------|----|-------------------|------|
| | Tentatively Identified Compound | | None | |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38067-1
Sdg Number: 200-38067-1

Lab Control Sample - Batch: 200-115748

Method: TO-15

Preparation: Summa Canister

| | | |
|---------------------------------|----------------------------|-------------------------------|
| Lab Sample ID: LCS 200-115748/4 | Analysis Batch: 200-115748 | Instrument ID: CHX.i |
| Client Matrix: Air | Prep Batch: N/A | Lab File ID: 24704_04.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 200 mL |
| Analysis Date: 04/12/2017 1237 | Units: ppb v/v | Final Weight/Volume: 200 mL |
| Prep Date: 04/12/2017 1237 | | Injection Volume: 200 mL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-------------------------------|--------------|--------|--------|----------|------|
| Dichlorodifluoromethane | 10.0 | 10.5 | 105 | 68 - 128 | |
| Freon 22 | 10.0 | 9.43 | 94 | 64 - 128 | |
| 1,2-Dichlorotetrafluoroethane | 10.0 | 11.4 | 114 | 78 - 138 | |
| Chloromethane | 10.0 | 9.06 | 91 | 57 - 126 | |
| n-Butane | 10.0 | 8.63 | 86 | 56 - 130 | |
| Vinyl chloride | 10.0 | 9.54 | 95 | 62 - 125 | |
| 1,3-Butadiene | 10.0 | 9.06 | 91 | 59 - 125 | |
| Bromomethane | 10.0 | 10.6 | 106 | 68 - 128 | |
| Chloroethane | 10.0 | 9.79 | 98 | 65 - 125 | |
| Bromoethene(Vinyl Bromide) | 10.0 | 10.8 | 108 | 67 - 127 | |
| Trichlorofluoromethane | 10.0 | 10.7 | 107 | 67 - 127 | |
| Freon TF | 10.0 | 10.8 | 108 | 68 - 128 | |
| 1,1-Dichloroethene | 10.0 | 10.7 | 107 | 67 - 127 | |
| Acetone | 10.0 | 10.3 | 103 | 64 - 136 | |
| Isopropyl alcohol | 10.0 | 8.65 | 87 | 55 - 124 | |
| Carbon disulfide | 10.0 | 12.0 | 120 | 81 - 141 | |
| 3-Chloropropene | 10.0 | 7.70 | 77 | 53 - 133 | |
| Methylene Chloride | 10.0 | 9.26 | 93 | 62 - 122 | |
| tert-Butyl alcohol | 10.0 | 9.83 | 98 | 64 - 124 | |
| Methyl tert-butyl ether | 10.0 | 10.6 | 106 | 67 - 127 | |
| trans-1,2-Dichloroethene | 10.0 | 10.6 | 106 | 72 - 132 | |
| n-Hexane | 10.0 | 10.3 | 103 | 71 - 131 | |
| 1,1-Dichloroethane | 10.0 | 10.3 | 103 | 66 - 126 | |
| Methyl Ethyl Ketone | 10.0 | 10.5 | 105 | 62 - 122 | |
| cis-1,2-Dichloroethene | 10.0 | 10.6 | 106 | 67 - 127 | |
| Chloroform | 10.0 | 10.5 | 105 | 69 - 129 | |
| Tetrahydrofuran | 10.0 | 8.96 | 90 | 61 - 136 | |
| 1,1,1-Trichloroethane | 10.0 | 10.7 | 107 | 70 - 130 | |
| Cyclohexane | 10.0 | 10.5 | 105 | 69 - 129 | |
| Carbon tetrachloride | 10.0 | 10.9 | 109 | 62 - 143 | |
| 2,2,4-Trimethylpentane | 10.0 | 9.30 | 93 | 67 - 127 | |
| Benzene | 10.0 | 10.6 | 106 | 67 - 127 | |
| 1,2-Dichloroethane | 10.0 | 10.3 | 103 | 67 - 132 | |
| n-Heptane | 10.0 | 8.75 | 87 | 62 - 130 | |
| Trichloroethene | 10.0 | 11.0 | 110 | 68 - 128 | |
| Methyl methacrylate | 10.0 | 11.8 | 118 | 70 - 130 | |
| 1,2-Dichloropropane | 10.0 | 9.57 | 96 | 67 - 127 | |
| 1,4-Dioxane | 10.0 | 10.1 | 101 | 66 - 132 | |
| Bromodichloromethane | 10.0 | 10.4 | 104 | 69 - 129 | |
| cis-1,3-Dichloropropene | 10.0 | 10.5 | 105 | 70 - 130 | |
| methyl isobutyl ketone | 10.0 | 9.04 | 90 | 62 - 130 | |

Quality Control Results

Client: AKRF Inc

Job Number: 200-38067-1
Sdg Number: 200-38067-1

Lab Control Sample - Batch: 200-115748

Method: TO-15

Preparation: Summa Canister

| | | |
|---------------------------------|----------------------------|-------------------------------|
| Lab Sample ID: LCS 200-115748/4 | Analysis Batch: 200-115748 | Instrument ID: CHX.i |
| Client Matrix: Air | Prep Batch: N/A | Lab File ID: 24704_04.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 200 mL |
| Analysis Date: 04/12/2017 1237 | Units: ppb v/v | Final Weight/Volume: 200 mL |
| Prep Date: 04/12/2017 1237 | | Injection Volume: 200 mL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|----------------------------------|--------------|--------|--------|----------|------|
| Toluene | 10.0 | 10.9 | 109 | 67 - 127 | |
| trans-1,3-Dichloropropene | 10.0 | 10.3 | 103 | 69 - 129 | |
| 1,1,2-Trichloroethane | 10.0 | 10.5 | 105 | 69 - 129 | |
| Tetrachloroethene | 10.0 | 12.3 | 123 | 70 - 130 | |
| Methyl Butyl Ketone (2-Hexanone) | 10.0 | 9.17 | 92 | 61 - 127 | |
| Dibromochloromethane | 10.0 | 11.3 | 113 | 66 - 130 | |
| 1,2-Dibromoethane | 10.0 | 11.3 | 113 | 70 - 130 | |
| Chlorobenzene | 10.0 | 11.3 | 113 | 68 - 128 | |
| Ethylbenzene | 10.0 | 10.8 | 108 | 68 - 128 | |
| m,p-Xylene | 20.0 | 22.2 | 111 | 68 - 128 | |
| Xylene, o- | 10.0 | 11.0 | 110 | 67 - 127 | |
| Styrene | 10.0 | 11.8 | 118 | 68 - 128 | |
| Bromoform | 10.0 | 12.0 | 120 | 34 - 170 | |
| Cumene | 10.0 | 10.7 | 107 | 67 - 127 | |
| 1,1,2,2-Tetrachloroethane | 10.0 | 10.4 | 104 | 69 - 129 | |
| n-Propylbenzene | 10.0 | 10.5 | 105 | 67 - 127 | |
| 4-Ethyltoluene | 10.0 | 11.2 | 112 | 69 - 129 | |
| 1,3,5-Trimethylbenzene | 10.0 | 11.0 | 110 | 65 - 125 | |
| 2-Chlorotoluene | 10.0 | 10.6 | 106 | 67 - 127 | |
| tert-Butylbenzene | 10.0 | 11.3 | 113 | 63 - 125 | |
| 1,2,4-Trimethylbenzene | 10.0 | 11.0 | 110 | 65 - 125 | |
| sec-Butylbenzene | 10.0 | 10.8 | 109 | 66 - 126 | |
| 4-Isopropyltoluene | 10.0 | 11.1 | 111 | 67 - 129 | |
| 1,3-Dichlorobenzene | 10.0 | 11.9 | 119 | 67 - 127 | |
| 1,4-Dichlorobenzene | 10.0 | 12.1 | 121 | 66 - 126 | |
| Benzyl chloride | 10.0 | 9.36 | 94 | 54 - 135 | |
| n-Butylbenzene | 10.0 | 10.6 | 106 | 67 - 127 | |
| 1,2-Dichlorobenzene | 10.0 | 11.9 | 119 | 67 - 127 | |
| 1,2,4-Trichlorobenzene | 10.0 | 13.8 | 138 | 59 - 126 | * |
| Hexachlorobutadiene | 10.0 | 13.1 | 131 | 62 - 130 | * |
| Naphthalene | 10.0 | 13.4 | 134 | 50 - 121 | * |

TestAmerica Burlington

30 Community Drive

Suite 11

South Burlington, VT 05403

phone 802-660-1990 fax 802-660-1919

Canister Samples Chain of Custody Record

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| | | | | | | | | | | | | | | | | |
|---|--|---|---------------------------|---|---|---|-----------------------------------|--|---------------------|--|-----------------------------|--|-----------------|----------------|-----------------|---|
| Client Contact Information Company: AKRR Address: 440 Park Ave S City/State/Zip: NY NY 10014 Phone: FAX: Project Name: AMNH Site: AMNH PO # | | Project Manager: Eric Park Phone: Email: epark@AKRR.com Site Contact: TA Contact: Analysis Turnaround Time Standard (Specify) X Rush (Specify) | | Samples Collected By: MW 1 of 1 COCs | | | | | | | | | | | | |
| Sample Identification SV-7-170530 | | Sample Date(s) 3/30/17 | Time Start 0854 | Time Stop 0950 | Canister Vacuum in Field, "Hg (Start) -30 | Canister Vacuum in Field, "Hg (Stop) -5 | Flow Controller ID 4188 | Canister ID 4581 | EPA 25C X | EPA 3C MA-APH | ASTM D-1946 TO-15 | Other (Please specify in notes section) Other set unused | Ambient Air | Indoor Air | Sample Type | Other (Please specify in notes section) |
| Temperature (Fahrenheit) Interior Ambient Start Stop Pressure (Inches of Hg) Interior Ambient Start Stop | | | | | | | | | | | | | | | | |
| Special Instructions/QC Requirements & Comments: <div style="text-align: center;">  200-39067 Chain of Custody </div> | | | | | | | | | | | | | | | | |
| Samples Shipped by: Matthew Lay | | Date/Time: 3/30/17 1515 | | Samples Received by: Received by: | | Date/Time: 3/30/17 1700 | | Received by: Received by: Matthew Lay | | 200-39067 Chain of Custody MA-APH | | | | | | |
| Lab Use Only Shipper Name: AKRR | | Date/Time: | | Samples Received by: | | Date/Time: | | Received by: | | Condition: INTACT | | | | | | |

ORIGIN ID: AIVA
TESTAMERICA NYC
47-32 32ND PLACE,
SUITE 1141
LONG ISLAND CITY, NY 11101
UNITED STATES US

SHIP DATE: 31MAR17
ACTWGT: 35.00 LB
CAD: 101905570/NET3850
DIMS: 20x22x20 IN
BILL RECIPIENT

TO **SAMPLING RECEIVING BVT**
TESTAMERICA
30 COMMUNITY DR STE 11

SOUTH BURLINGTON VT 05403
(802) 660-1990 REF:
INV. PO. DEPT.



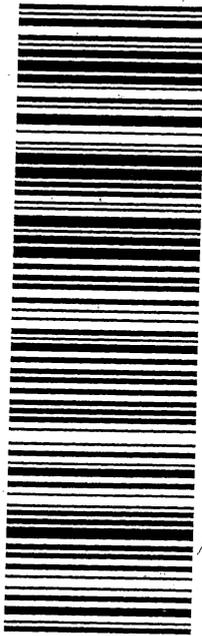
546J3MADB53C1

MON - 03 APR 3:00P
STANDARD OVERNIGHT

1 of 2
TRK# 7787 8997 8550
MASTER

K9 BTVA

05403
VT-US
BTV



ORIGIN ID: AIVA
TESTAMERICA NYC
47-32 32ND PLACE,
SUITE 1141
LONG ISLAND CITY, NY 11101
UNITED STATES US

SHIP DATE: 31MAR17
ACTWGT: 10.00 LB
CAD: 101905570/NET3850
DIMS: 20x22x20 IN
BILL RECIPIENT

TO **SAMPLING RECEIVING BVT**
TESTAMERICA
30 COMMUNITY DR STE 11

SOUTH BURLINGTON VT 05403
(802) 660-1990 REF:
INV. PO. DEPT.



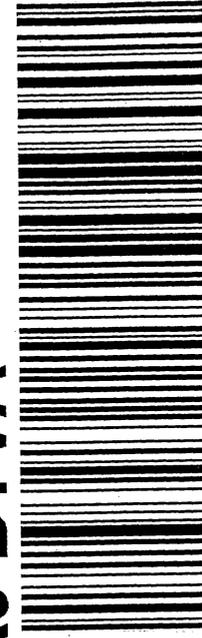
546J3MADB53C1

MON - 03 APR 3:00P
STANDARD OVERNIGHT

2 of 2
MPS# 7787 8997 8080
Mstr# 7787 8997 8550

K9 BTVA

05403
VT-US
BTV



Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 200-38067-1

SDG Number: 200-38067-1

Login Number: 38067
List Number: 1
Creator: Lavigne, Scott M

List Source: TestAmerica Burlington

| Question | Answer | Comment |
|--|--------|--|
| Radioactivity wasn't checked or is \leq background as measured by a survey meter. | True | Lab does not accept radioactive samples. |
| The cooler's custody seal, if present, is intact. | True | 077274,275 |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | N/A | Thermal preservation not required. |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | N/A | Thermal preservation not required. |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | N/A | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

APPENDIX E-4:
Remedial Action Plan and Construction Health and Safety Plan
prepared by AKRF, Inc., September 2017

Portions of the American Museum of Natural History and Theodore Roosevelt Park

NEW YORK, NEW YORK

Remedial Action Plan

AKRF Project Number: 12166

CEQR Number: 16DPR004M

Prepared for:

Venable LLP
Rockefeller Center
1270 Avenue of the Americas, 24th Floor
New York, NY 10020

Prepared by:



AKRF, Inc.

440 Park Avenue South, 7th Floor
New York, New York 10016
646-388-9800

SEPTEMBER 2017

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FIGURES

Figure 1 – Site Location

APPENDICES

Appendix A – Construction Health and Safety Plan

1.0 INTRODUCTION

This Remedial Action Plan (RAP) was prepared for the proposed Gilder Center project at the American Museum of Natural History (AMNH or the Museum) in Theodore Roosevelt Park. The proposed project comprises construction of the Gilder Center, which entails partial or full demolition of portions of the Museum including Sections 1, 7A, 8, 11, 11A, 11B, 15, 15A, 16, and 17, Weston Pavilion, the new location of The New York Times Capsule, and adjacent Museum yards, along with improvements to an approximately 75,000-square foot (SF) portion of Theodore Roosevelt Park and adjacent areas during construction of the proposed project (collectively, and as shown on Figure 1, as the “Remedial Action Plan Site” or “RAP Site”). The RAP Site, along with the remainder of the Museum buildings and grounds, are located at 200 Central Park West, on New York City-owned mapped parkland under the jurisdiction of the New York City Department of Parks and Recreation (NYC Parks) and defined legally as Tax Block 1130, part of Lot 1, as shown on Figure 1.

The RAP is based upon the findings of a *Phase I Environmental Site Assessment* [AKRF, Inc. (AKRF), November 2016] and a *Subsurface (Phase II) Investigation* (AKRF, April 2017, Updated July 2017). The purpose of this RAP is to present procedures for managing on-site and off-site activities related to on-site subsurface disturbance work associated with the proposed project. This RAP requires all such activities to be conducted in accordance with applicable federal, state, and local requirements, including guidelines for environmental mitigation measures, such as pre-construction ACM surveys, soil stockpiling, soil disposal and transportation; dust control; contingency measures if additional petroleum storage tanks or other contamination should be unexpectedly encountered; and a minimum two foot clean fill buffer in any landscaped or uncapped areas, designed to control or avoid the potential for human or environmental exposure to known or unexpectedly encountered hazardous materials during and following construction of the proposed project.

Areas where on-site subsurface disturbance work, related construction activities, and related construction mitigation measures will occur are referred to as remedial construction areas. Portions of the RAP Site outside of remedial construction areas where certain construction mitigation measures described in this RAP may be implemented, such as community air monitoring and some storm-water pollution prevention measures, will be referred to as auxiliary monitoring areas. Other portions of the RAP Site outside of both the remedial construction areas, and auxiliary monitoring areas may not require any mitigation measures based upon the proposed project-related work, and the proximity of the area relative to remedial construction areas and auxiliary monitoring areas. The boundaries and locations of the remedial construction areas, auxiliary monitoring areas, and other portions of the RAP Site will change throughout the duration of the proposed project work based upon the locations of construction work areas. The applicable construction mitigation measure logistics will be reevaluated throughout the duration of the proposed project work to reflect the changing work area boundaries.

All work outlined within this RAP is also subject to the *Construction Phase Environmental Health and Safety Plan* (CHASP) developed for the proposed project, which is provided as Appendix A. The RAP and CHASP will be reviewed and approved by the New York City Department of Environmental Protection (NYCDEP) and on-site work related to the proposed project will be consistent with the approved RAP and CHASP.

2.0 SITE BACKGROUND

2.1 Site Characterization

Based on U.S. Geological Survey mapping, the Museum lies at an elevation of approximately +85 to +90 feet above the North American Vertical Datum (NAVD) of 1988 (an approximation of mean sea level), with the ground within the landscaped area sloping down to the east. The

Yard was observed to be approximately 13.5 to 14.5 feet lower than the landscaped area, isolated from landscaped areas by retaining walls in the northern portion of the Yard or Museum buildings and sloped driveways to the south. For the purposes of this report, all depths to subsurface findings, including soil types, bedrock, and groundwater will be presented as existing grade relative to the landscaped area.

Based on USGS mapping, depth to bedrock in the vicinity of the Museum is anticipated to be highly variable (approximately 5 to 35 feet below existing grade relative to the landscaped area). During the Phase II investigation, evidence of weathered bedrock was observed as shallow as 2 to 3 feet below existing grade (relative to the landscaped area).

Groundwater was observed between approximately 18 and 23 feet below existing grade (relative to the landscaped area); which, based on the presence of shallow weathered bedrock, is likely to be attributed to a perched water table. Though the local topography may indicate that groundwater at the Museum might flow towards the east, groundwater in the greater area surrounding the Museum is anticipated to flow in a southwesterly direction toward the Hudson River, approximately 3,200 feet west of the Museum. Actual groundwater depth and flow beneath the Museum can be affected by many factors, including bedrock geology, the A/B/C/D Line subway tunnels approximately 450 feet east of the Museum (east-adjacent to the Museum superblock beneath Central Park West), other subsurface features or obstructions such as basements or utilities, and other factors. Groundwater in Manhattan is not used as a source of potable water.

2.2 Previous Environmental Investigations

American Museum of Natural History – Portions of the American Museum of Natural History and Theodore Roosevelt Park, New York, New York - Phase I ESA, AKRF, November 2016

The Phase I ESA reviewed a variety of sources including: current and historical land use maps; state and federal environmental regulatory databases; computerized New York City Fire Department (FDNY), and Buildings Department records; and previous studies, and included reconnaissance of the Phase I Site and its surroundings.

The Phase I Site buildings were constructed between 1902 and 2000 as parts of Museum expansions, and have been used as historically as exhibition, research, educational, and maintenance purposes associated with the Museum.

The Phase I ESA identified the following Recognized Environmental Conditions (RECs):

- Historical petroleum and chemical storage and use at the Phase I Site that might represent RECs included:

Section 16 – One 1,080-gallon diesel aboveground storage tank (AST) located within an epoxy-coated room with secondary containment berm (i.e., a low concrete berm constructed around the perimeter of the tank);

Section 17 – One empty 250-gallon parts washer tank formerly containing trichloroethylene (TCE) (which was formerly used to remove lipids and fats from vertebrate zoology specimens), and a 500-gallon double-walled diesel AST located on the first floor (a day tank associated with the AST located in Section 16); and

Exterior yard – Approximately 17 drums (up to 55 gallons) of ethanol, isopropanol, research space waste, and diesel in secured chemical storage sheds. Chemical storage sheds included secondary containment systems, and were regularly inspected to prevent spillage. Floor drains noted in the exterior yard and other areas throughout the Phase I Site were reported to

be connected to the municipal sewer system and were in good condition with no evidence of releases or spills. Spill prevention kits were also identified in the drum storage area.

Regulatory databases identified the Museum as a small quantity generator (SQG) of hazardous waste from 2005 to 2016, and historical large quantity generator (LQG) of hazardous waste from 1984 to 2005. Chemical waste was disposed of by Clean Harbors, a permitted chemical waste hauler. The chemical storage areas are New York City Fire Department (FDNY)-permitted, with no evidence of a release noted on or concerning the Phase I Site.

- The Museum was registered in the New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage (PBS) database with four ASTs and two underground storage tanks (USTs). Of these, two ASTs and one UST were located at the Phase I Site. These included: the two diesel ASTs discussed above; one closed-in-place 1,080-gallon double-wall steel UST with interstitial monitoring and high-level alarm in the exterior yard; and a former 50-gallon AST in Section 1, which was associated with the 1,080-gallon UST. The 50-gallon AST was registered with NYSDEC as being in-service, but was removed in September 2016. The on-site storage tanks were registered as having spill prevention measures including secondary containment in the form of curbs or double-wall construction, interstitial alarms, and high-level alarms, and no evidence of a release on or near the Phase I Site was noted.
- Other historical uses of the Phase I Site included use of Section 17 (the Power House) as a coal-fired electric power plant, and Section 15 as an auto house (i.e., garage) and power house. During the reconnaissance, no evidence of coal storage or residue was observed and there is, therefore, no present information indicating that the proposed project is expected to be complicated by the former presence of the power house and auto house.

The Phase I ESA also identified the following *de minimis* conditions:

- Arsenic-preserved hides were stored in dedicated areas on the fifth floor of Section 1, and on the third floor of Section 7A. Arsenic preservation was a common preservation technique for natural history collections between approximately 1930 and 1990. Preserved hides were stored in designated cabinets.
- Chemical storage in Section 8 was noted on the fifth floor in a FDNY-permitted room with a secondary containment berm. Chemicals stored included 1-butanol, ethyl alcohol, toluene, and other specimen preservation-related solvents in containers up to five gallons, with no record of historic release.
- Chemical storage in Section 11B was noted on the lower level and fourth floors and included nitrate film negatives and acetate film roll storage.
- Chemical storage noted in Section 15 in the Ichthyology collections included approximately 300,000 small jars (up to five gallons) of specimens preserved in ethanol or isopropanol, large containers and drums (up to 55 gallons) of ethanol used for specimen preservation, and other containers (generally 15 gallons or less) of organic solvents and solvent wastes, with no record of historic release.
- Chemical storage noted in Section 17 included small containers (up to one gallon) of polyester resins, spray paints, and acids in the exhibition production shop on the fifth floor.

- In addition to the chemical storage noted above, the exterior yard was used to store 55-gallon drums of waste cooking oil, and liquid nitrogen in a 3,000-gallon AST, with no record of historic release.
- A proposed 30,000-gallon UST was shown on 1962 engineering plans for Section 17 (the Power House). However, no documentation of the UST installation was found. Museum representatives did not believe the tank was installed, and the Museum was reported to have converted from coal to Consolidated Edison steam as a heating source around the time the plans were prepared; thus, it appears the proposed UST was never installed.
- One closed-in-place 1,080-gallon double-wall UST with spill/fill containment, interstitial monitoring, and a high-level alarm was identified in the exterior yard. This UST was associated with the former 50-gallon day tank AST identified in Section 1.
- The following petroleum storage tanks were located in Museum areas outside of the Phase I Site boundary: one in-service 6,000-gallon double-wall fiberglass reinforced plastic UST and one in-service 200-gallon AST, both containing diesel fuel for supplying an emergency generator. These tanks were located in a courtyard in the southwestern portion of the Museum (outside of the Phase I Site boundary). No odors, staining, or spills were noted in the vicinity of the AST, and no related historical spills were documented.
- Based on the age of the Museum sections and prior subsurface investigations which identified historic fill in the northern portion of Theodore Roosevelt Park, historic fill materials may also be present beneath the Phase I Site. Historic fill material was investigated further as part of the Subsurface (Phase II) Investigation.

Geophysical Survey, American Museum of Natural History, Hager-Richter Geoscience, Inc., March 2017

Hager-Richter Geoscience, Inc. completed a Geophysical Survey related to a geotechnical investigation lead by Langan in February 2017. The objective of the survey was to detect on-site utilities within the proposed redevelopment area.

- Segments of known electrical and sewer utilities, a known utility trench and small segments of possible utilities were detected. No major unknown utilities or anomalies were detected during the geophysical survey.

American Museum of Natural History – Portions of the American Museum of Natural History and Theodore Roosevelt Park, New York, New York – Phase II Subsurface Investigation, AKRF, June 2017

The scope of the Phase II investigation was established in AKRF's Subsurface (Phase II) Investigation Sampling Protocol and Health and Safety Plan, dated February 2017, based on the findings of AKRF's November 2016 Phase I ESA. On February 27, 2017, NYCDEP issued an approval letter for the Subsurface (Phase II) Investigation Sampling Protocol and Health and Safety Plan.

The Phase II field activities were conducted between March 23 and 30, 2017, and included a geophysical survey, and the advancement of soil borings with the collection and laboratory analysis of soil, groundwater, and soil vapor samples. Soil sample laboratory analytical results were compared to the NYSDEC 6 New York Codes, Rules, and Regulations (NYCRR) Part 375 Soil Cleanup Objectives (SCOs) for Restricted Residential use (RRSCOs) and Commercial use (CSCOs). Groundwater sample laboratory analytical results were compared to the NYSDEC Technical and Operational Guidance Series (1.1.1): Class GA Ambient Water Quality Standards and Guidance Values (AWQS), including Type E aesthetic standards for protection of

freshwaters. Soil vapor laboratory analytical results were compared to the New York State Department of Health (NYSDOH) Air Guidance Values (AGVs) for indoor air quality of the Final Guidance for Evaluation Soil Vapor Intrusion in the State of New York, dated October 2006, as revised in the September 2013, and August 2015 fact sheets for tetrachloroethylene (PCE) and TCE.

The following findings were identified as part of the Phase II Investigation:

- The geophysical survey did not identify subsurface anomalies to indicate the presence of undocumented USTs.
- Brown fine sand and silt, with some clay was observed from grade surface to the terminus of each boring (between 18 and 25 feet below existing grade relative to the landscaped area). Weathered bedrock was interspersed throughout the sand and silt layer, starting as shallow as 2 feet below existing grade (relative to the grade of the landscaped area).
- During field screening of soil samples, photoionization detector (PID) readings ranging from approximately 1 to 12 parts per million (ppm) were noted in three soil borings. Soil samples were biased toward intervals with PID detections. No petroleum-like odors, sheens, staining, or other potential signs of soil contamination were observed during the Phase II investigation.
- No volatile organic compounds (VOCs) were detected in soil samples above their respective NYSDEC Part 375 RRSCOs or CSCOs. A trace TCE detection was identified at one location at a depth between 0 and 1 foot below grade. TCE was not detected in any other soil samples. These findings are not indicative of on-site TCE contamination of significance.
- Multiple semivolatile organic compounds (SVOCs), primarily comprising polycyclic aromatic hydrocarbons (PAHs), were detected in 14 of 18 soil samples. Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene were detected at concentrations above their respective RRSCOs in soil sample SB-1(1-2)-170329, with the benzo(a)pyrene detection above the CSCO as well. The exceedances were not significantly above the RRSCOs and CSCOs and were at concentrations typical of soil at many urban sites, including throughout Manhattan. These detections will be addressed by the provisions specified in this RAP.
- No metals, polychlorinated biphenyls (PCBs), or pesticides were detected in soil samples above their respective RRSCOs and CSCOs. Metals detections were at concentrations typical of soil at many urban sites, including throughout Manhattan. Pesticides were detected at sampling locations in landscaped areas of the Park, making it likely that the low pesticide detections were attributable to groundskeeping activities. These detections will be addressed by the provisions specified in this RAP.
- Groundwater was observed between approximately 19 and 24 feet below existing grade (relative to the landscaped area) and, based on the presence of weathered bedrock in soil borings, may be attributed to a perched water table. No odors, sheens, or other potential signs of groundwater contamination were observed during the Phase II investigation.
- PCE and cis-1,2-dichloroethylene (cis-1,2-DCE) were detected in one groundwater sample at concentrations slightly above their respective Class GA AWQS. No other VOCs were detected above their respective Class GA AWQS. These detections will be addressed by the provisions specified in this RAP.
- No SVOCs were detected at concentrations above their respective Class GA AWQSSs. No PCBs or pesticides were detected in groundwater samples.

- Metals were detected in the filtered and unfiltered groundwater samples, with 21 Class GA AWQS exceedances in unfiltered samples, and 16 Class GA AWQS exceedances in the filtered samples, indicating that concentrations of at least five metals (beryllium, chromium, lead, mercury, and nickel) were attributable to metals absorbed to suspended solids in the unfiltered groundwater samples. The metals detections were typical of groundwater at many urban sites, including throughout Manhattan. These detections will be addressed by the provisions specified in this RAP.
- TCE was detected in soil vapor at one location at a concentration of 4 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), slightly exceeding the NYSDOH Air Guidance Value for *indoor* air quality of $2 \mu\text{g}/\text{m}^3$. No other VOCs were detected above the NYSDOH Air Guidance Values for indoor air quality and the remaining VOC detections were relatively low and typical of soil vapor at many urban sites, including throughout Manhattan. The NYSDOH Air Guidance Values are guidance values for protection of indoor air quality and not intended to be used for direct comparison of soil vapor concentrations, which are expected to decrease due to retardation, decay, and dilution in the subsurface (collectively referred to as site-specific attenuation factors) prior to impacting any enclosed spaces. Based upon the soil vapor sampling data collected as part of the Phase II Investigation and the site-specific attenuation factors, the existing conditions pose a minimal risk for vapor intrusion for the existing building and proposed Gilder Center construction. Notwithstanding as a conservative measure, provisions to address vapor intrusion have been incorporated into this RAP.

Geotechnical Engineering Study, American Museum of Natural History, Gilder Center, New York, New York, Langan, April 2017

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. of New York, New York (Langan) completed a Geotechnical Engineering Study to support the foundation and construction design for the proposed project.

Based upon the findings from the installation of geotechnical soil borings, groundwater wells, and test pits, the study characterized subsurface material at the Museum to consist of fill material (comprising sand with varying amounts of silt, gravel, rock fragments, and debris), underlain by sand, decomposed rock, and bedrock at varying depths. Shallow bedrock and shallow, potentially perched groundwater were noted in the subsurface.

The study concluded that any soil remaining after construction excavation would require compaction prior to shallow foundation construction, and that dewatering may be required during construction activities. A membrane-type waterproofing solution was also recommended for installation under or behind any proposed subgrade walls or slabs, which would also satisfy the vapor proofing requirements discussed in Section 4.2 of this RAP.

A copy of these previous reports is provided in Appendix A.

3.0 CONSTRUCTION MEASURES

The proposed project work would entail soil disturbance for construction excavation, including foundation construction and landscaping. Soil disturbance throughout most of the RAP Site would be limited to depths between 1 and 20 feet below grade. Based on the anticipated depth to groundwater, construction dewatering may also be required.

Soil and fill materials containing generally low concentrations of some VOCs, SVOCs, metals, and pesticides were identified on-site and may be encountered during soil disturbance for the proposed project. Soil handling procedures are provided in Sections 3.2 and 3.4. A groundwater management plan is provided in Section 3.6.

The previous studies identified petroleum storage tanks on-site. A contingency plan for the removal of any unexpectedly encountered tanks is provided in Section 3.3. In the event that contaminated soil (e.g., petroleum-contaminated soil) is encountered, a contingency plan is provided in Section 3.2 for appropriate handling, testing, and disposal of these materials during general excavation.

The project design will incorporate measures to minimize potential impacts after construction, as described in Section 4.0. Following completion of subsurface work, a New York State licensed Professional Engineer (PE)-certified closure report will be submitted to the NYCDEP for review and approval. The report will include a description of all construction activities and evidence of consistency with and any deviations from this RAP, copies of manifests/bills of lading associated with off-site disposal of material, photographs of the work, and any laboratory results received for additional sampling during construction including waste characterization, off-site disposal purposes, and imported soil.

3.1 Pre-Demolition Surveys

Prior to the onset of any demolition activities, surveys shall be conducted in all proposed demolition areas to identify all potential asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyl (PCB) containing materials. All suspect materials identified in the surveys shall be managed, removed, and disposed of off-site in accordance with all federal, state, and local requirements.

3.2 Soil Disposal

If sludges, soil, or sediment known to be contaminated or showing evidence of potential contamination, such as discoloration, staining, or odors are encountered during excavation activities, the following procedures will be implemented:

1. Spill reporting to the NYSDEC Spill Hotline (800-457-7362) will be conducted, as necessary.
2. The suspect soil will be sampled for laboratory analyses. Soil samples will be analyzed, at a minimum, for parameters required by the intended disposal facility. Additional analytical requirements may be required based on the nature of the contamination.
3. If the suspect soil is determined to be significantly contaminated according to analytical results, it will be excavated and removed in accordance with the stockpiling and/or direct-loading procedures presented in Section 3.2.2 and 3.2.3, respectively.
4. The excavation will continue vertically until no evidence of contamination is noted in the base of the excavation or until groundwater or bedrock is encountered. The excavation will continue horizontally until no evidence of contamination is noted in the sidewalls of the excavation. Post-excavation endpoint samples will be collected from the sides and bottom of the excavated area and analyzed in accordance with the NYSDEC Commissioner's Policy CP-51, dated October 2010 (CP-51) or NYSDEC Division of Environmental Remediation

- DER-10, based on the nature of the identified contamination. If post-excavation samples exceed action levels, then additional excavation will be performed, as warranted.
5. Soils intended for off-site disposal will be tested in accordance with the requirements of the receiving facility (as discussed further in Section 3.2.1), and disposed of in accordance with applicable federal, state and local requirements. If additional sample analyses are required by alternative disposal facilities, additional analysis may be run on existing sample material at the laboratory as long as all holding time and preservation requirements have not been exceeded.
 6. All analytical results, including endpoint sample and excavated soil characterization sampling results, must be received, reviewed, and discussed by the project team before the soil excavation can be backfilled, and before the excavated material can be disposed of off-site, as additional samples may need to be collected.
 7. The excavated soil will then be disposed of in accordance with all applicable federal, state and local regulations.
 8. Copies of correspondence with disposal facilities concerning classification of materials, testing results, and permits/approvals will be maintained by the project manager and will be submitted to NYSDEC in a Spill Closure Report, as necessary.

When applicable, hazardous waste manifest forms and/or non-hazardous waste records will be completed as required by the appropriate regulatory agencies for verifying the material and quantity of each load in units of volume and weight.

3.2.1 Off-site Disposal and On-Site Soil Reuse Criteria

Existing soil/fill intended to be excavated during the construction activities will be characterized at a rate of one representative sample for every 800 cubic yards of soil/fill. This waste characterization sampling may be conducted in-situ using a grid-based system.

Each sample will be analyzed for NYSDEC Part 375 VOCs, SVOCs, pesticides, PCBs and TAL metals, and other parameters required by the intended disposal facilities. This data may also be utilized to evaluate appropriate disposal facility options, as well as the potential suitability for reuse on-site, based on the following criteria:

- Soil that meets the Part 375 CSCOs may be reused on-site below the remedial site cap, as defined in Section 4.1; and
- Soil that meets the Part 375 RRSCOs may be segregated and maintained on-site for potential reuse on-site as part of the remedial site cap, as defined in Section 4.1, pending additional sampling (one sample for every 250 cubic yards of proposed material for NYSDEC Part 375 VOCs, SVOCs, pesticides, PCBs, and TAL metals).

In addition to the criteria above, reuse procedures in Section 3.2.2 of this RAP shall also be followed.

Off-site disposal analytical thresholds will be determined by the individual disposal facilities.

3.2.2 Stockpiling Procedures

No petroleum-contaminated soil encountered that is excavated from the RAP Site will be re-used on-site for grading or other purposes.

Any contaminated material intended for off-site disposal may be stockpiled temporarily or loaded directly onto trucks for off-site disposal, if pre-approved by the receiving facility.

Soil with contamination established by laboratory analytical data or exhibiting field-screening evidence of contamination will be stockpiled on polyethylene sheeting following excavation. If the soil is expected to remain on-site overnight or longer, the stockpile will be covered with similar polyethylene sheeting, which will be secured with large rocks or other appropriate weights to protect against leaching or runoff of contaminants into groundwater or stormwater. Stockpiles will be managed to minimize particulate generation, and run-off and erosion using water, plastic covers, silt fences, and/or hay bales, as necessary.

Silt fencing and/or hay bales will be used as needed near catch basins, and other discharge points in remedial construction and auxiliary monitoring areas to serve as a stormwater pollution prevention measure.

Soil will be segregated and stockpiled based on its known or anticipated type and/or level of contamination (based on analytical data, PID readings, odor, staining, etc.). Stockpiles will be separated by a sufficient distance to ensure that mixing of dissimilar or potentially dissimilar materials does not occur. The location and classification of stockpiles will be tracked on site drawings and updated, if necessary, at the end of each workday according to the following categories:

- Soil intended and approved by NYCDEP for reuse on-site (reuse criteria specified in Section 3.2.1);
- Non-petroleum contaminated, non-hazardous soil for off-site disposal;
- Non-petroleum contaminated, hazardous soil for off-site disposal;
- Petroleum-contaminated soil for off-site disposal; and
- Soil pending analysis, if in-situ testing is infeasible.

Copies of site drawings will be kept in the field log book. Stockpiles intended for off-site disposal may be mixed with other compatible stockpiles on-site (compatibility will be determined by the requirements of the receiving disposal facility), but hazardous or petroleum contaminated wastes will not be mixed with other non-hazardous wastes.

3.3 Petroleum Tank Closure

Three ASTs and one UST were identified in the Phase I ESA. If additional tanks are unexpectedly encountered and can be removed, these tanks and any appurtenances will be cleaned and closed in accordance with accepted industry standards and applicable federal, state, and local regulatory agency requirements. Any additional tanks that cannot be removed would be closed in place, in accordance with accepted industry standards and applicable federal, state, and local regulatory agency requirements.

Tank closure and any soil removal from the vicinity of any discovered USTs will be conducted in accordance with the NYSDEC Divisions of Spills and Response Memorandum on Permanent Closure of Petroleum Storage Tanks, dated July 1998, and updated in December 2003, and NYSDEC CP-51. Laboratory testing of both characterization samples and of samples obtained from the excavation areas will include NYSDEC CP-51 VOCs and SVOCs.

Any unregistered tanks encountered at the RAP Site will be registered with NYSDEC. Tank closure activities and any associated petroleum-contaminated soil removal will be documented in a separate Tank/Spill Closure Report, which will be submitted to NYSDEC to document all activity related to the formerly unregistered tanks.

Typical tank closure procedures are summarized below:

1. Open fill cap or vent pipe and measure for product. If measurable product exists, collect a sample of the product. Tank contents will be sampled in accordance with applicable federal, state, and local requirements and tested in accordance with the requirements of the receiving facility. Proper disposal of tank contents at an approved facility will be dictated by sample results.
2. Vacuum liquid tank contents and pumpable tank bottom residue.
3. Excavate around the tank with care to avoid release of any residual tank and piping contents. Hand excavation around the tank may be necessary. The sidewalls of all excavated areas will be properly stabilized in accordance with Occupational Safety and Health Administration (OSHA) regulations. Continuously monitor the excavated areas in the worker breathing zone for the presence of flammable, toxic, or oxygen-deficient atmosphere with a PID, a combustible gas indicator (CGI), and an oxygen meter.
4. Inert the tank of flammable vapors using dry ice and verify inertness using an oxygen meter (less than 7 percent). An access hole will be cut in the tank and the tank will be thoroughly cleaned of residual liquids and sludges.
5. Entry of the tank, if necessary, will be conducted in conformance with OSHA confined space requirements.
6. Remaining fuels, loose slurry, sludge materials and wastewater will be collected in Department of Transportation (DOT)-approved drums, sampled and analyzed for disposal characterization. After disposal characterization, waste material will be removed and disposed of in accordance with applicable regulations.
7. Remove the tank and all associated piping from the ground and clean the outside of the tank. The tank and piping will be rendered "not reusable," removed from the RAP Site and disposed of according to applicable regulations with proper documentation. If present, remove and dispose of all concrete tank support structures or vaults, as encountered.
8. After tank removal, examine for evidence of petroleum releases in accordance with the NYSDEC Memorandum on Permanent Closure of Petroleum Storage Tanks. If there is evidence of a petroleum release, follow procedures for Soil Disposal provided in Section 3.2, in addition to the procedures below.
9. If the tank cannot be physically removed due to structural concerns, it will be cleaned following the procedures described in Items 1, 2, 4, 5, and 6 above. Following cleaning, the tank will be permanently closed by filling the tank with a solid, inert material such as cement slurry or foam in accordance with NYSDEC guidance and regulations.
10. Spill reporting to the NYSDEC Spill Hotline (800-457-7362) will be conducted, if deemed necessary in consultation with NYCDEP and the project team.
11. All excavated materials will be field-screened with a PID. If soil contamination is present, excavate and remove contaminated soil from the tank areas in accordance with the stockpiling and/or direct-loading procedures presented in Sections 3.2.2 and 3.2.3, respectively. Material will be excavated, to the extent practicable, until field screening with a

PID yields concentrations of less than 20 ppm and until there are no remaining visible signs of contamination or odors. After contaminated soil removal, collect endpoint samples at each sidewall and at the bottom of the excavation for analytical testing as specified in NYSDEC CP-51.

12. Photo-document all procedures and record all procedures in a bound field notebook.
13. Copies of all testing results, correspondence with disposal facilities concerning classification of materials, and permits/approvals will be maintained by the project manager and will be submitted to the NYSDEC in a Tank Closure Report, as warranted.
14. A signed affidavit will be prepared by the licensed tank installation (removal) contractor and submitted to the New York City Fire Department certifying proper removal of the tank(s).

3.4 Waste Management and Transportation

Transportation of all material leaving the RAP Site for off-site disposal, including but not limited to soil, groundwater, or scrap metal, will be in accordance with federal, state and local requirements (including 6 NYCRR Part 364 and U.S. DOT regulations) covering licensing of haulers and trucks, placarding, truck routes, manifesting, etc.

The schedule for truck arrival will be coordinated to meet the approved project schedule. The schedule will be compatible with the availability of equipment and personnel for material handling operations at the job site. Trucks will be protected against contamination by properly covering and lining truck beds with compatible material (such as polyethylene) or by decontaminating them prior to any use other than hauling contaminated materials.

All vehicles leaving the RAP Site will be inspected to ensure that contaminated soil adhering to the wheels or under carriage is removed prior to the vehicle leaving the RAP Site. Any situations involving material spilled in transit or mud and dust tracked off-site will be remedied. The truck access routes will be evaluated for road conditions, overhead clearance, and weight restrictions.

Contaminated materials from other projects will not be combined with material from the construction area. The transporter will not deliver waste to any facility other than the disposal facility(s) listed on the shipping manifest.

3.5 Dust Control

To prevent the potential migration of dust generated during soil disturbance activities, the following measures will be implemented during all soil-disturbing operations:

- Water will be available (and used) for sprinkling/wetting to suppress dust in dry weather or as necessary.
- All haul trucks will have tarp covers.
- Stabilized construction exits (e.g., gravel pads) and wash stations will be placed strategically to prevent tracking out of, or dispersion of dust.

All work that involves soil disturbance or otherwise generates dust will be performed utilizing these methods to minimize dust generation to the extent practicable. Particulate air monitoring requirements will be conducted as discussed below.

3.5.1 Work Zone Air Monitoring

A work zone air monitoring program will be implemented during soil and groundwater disturbance activities to reduce exposure of all on-site field personnel, and to mitigate

potential impacts in off-site areas due to on-site work. Results of this air monitoring will be used to determine appropriate response actions.

A Dust Trak[®] particulate monitor or equivalent would be used to measure real-time concentrations of total particulates 10 micrometers or less (PM10), and a PID would be used to measure real-time total VOC concentrations. The particulate monitor and PID would be calibrated with a zero filter, and isobutylene, respectively in accordance with the manufacturer's recommendations.

Measurements for particulates and VOCs would be taken prior to commencement of the work to establish daily background concentrations, and then continuously during the soil-disturbance work.

For work zone monitoring, instantaneous readings will be collected every second, with one reading logged every minute locally on the device. The instantaneous data will be used to establish running 15-minute averages for both particulate and VOC monitoring data. A local alarm will be established on both monitoring devices to alert the user when the work zone 15-minute averages are in exceedance of the action levels presented below in Table 1. Work zone air monitoring measurements would be made as close to the workers as practicable and at their breathing height.

Table 1
Work Zone Action Levels and Required Responses

| Instrument | Action Level ¹ | PPE ² Requirements and Response Action |
|--------------------------------------|---|---|
| Particulate Monitoring | Less than 5 mg/m ³ | -Level D or D-Modified (Requires coveralls and steel toe boots) (As applicable: Chemical resistant gloves, chemical resistant boot covers, Hard hat, safety glasses, face shield, or escape mask) |
| | Between 5 mg/m ³ and 125 mg/m ³ | -Level C. (Requires Full Face or half face respirator, Hooded chemical resistant two piece Tyvek suite or overalls, Chemical resistant inner and outer gloves, Chemical resistant boot covers, Steel toe and shank boots) (As applicable: Hard hat, face shield, or escape mask) -Apply dust suppression measures. If less than 5 mg/m ³ , resume work using Level D. Otherwise, upgrade Level C. |
| | Above 125 mg/m ³ | -Stop work. -Apply additional dust suppression measures. Resume work when less than 125 mg/m ³ and maintain Level C. |
| Volatile Organic Compound Monitoring | Less than 10 ppm in breathing zone. | -Level D or D-Modified |
| | Between 10 and 100 ppm | -Level C. |
| | More than 100 ppm | -Stop work. -Resume work when source of vapors is abated and readings are less than 100 ppm above background |

Notes:

1: 15-minute time-weighted average, parts per million (ppm), milligrams per cubic meter (mg/m³).

2: PPE – Personal protective equipment

3.5.2 Community Air Monitoring Plan

Community air monitoring plan (CAMP, or perimeter monitoring) locations will be established on a daily basis and will consist of upwind and downwind locations at the perimeter of the remedial construction and/or auxiliary monitoring areas. Perimeter monitoring will be conducted continuously during soil disturbance activities using monitoring stations to determine whether on-site work is impacting air at the perimeter of the remedial construction and/or auxiliary monitoring areas, and to trigger work zone dust and odor mitigation controls to mitigate the impacts.

Measurements for particulates and VOCs would be taken prior to commencement of the work to establish daily background concentrations, and then continuously during the soil-disturbance work.

For community air monitoring, instantaneous readings will be collected with one reading logged every minute on a remote server. The data will be used to record running 15-minute averages for both particulate and VOC monitoring data. One minute and 15-minute data points will be stored on the remote server and presented in the RAP Closure Report. Remote, and local alarms will be established on both monitoring devices to alert the user when the community monitoring 15-minute averages are in exceedance of the action levels presented below in Table 2.

Table 2
Perimeter Action Levels and Required Responses

| Instrument | Action Level ¹ | Response Action |
|--|--|--|
| Particulate Monitoring | Less than 0.100 mg/m ³ above background concentration | -Continue on-site work in accordance with RAP. |
| | Between 0.100 mg/m ³ and 0.150 mg/m ³ above background concentration | -Apply dust suppression measures in work zone (i.e., minimum of spraying down work areas with water, other measures to be determined based on particulate-generating activity). -If particulate levels decrease to less than 0.100 mg/m ³ above background concentrations, resume work in accordance with RAP. |
| | Above 0.150 mg/m ³ above background concentration | -Stop work. -Apply additional dust suppression measures. If particulate concentrations decrease to below 0.100 mg/m ³ , resume work in accordance with RAP. |
| Volatile Organic Compound Monitoring | Less than 5 ppm above background concentration | -Continue on-site work in accordance with RAP. |
| | Between 5 and 25 ppm above background concentration | -Apply VOC suppression measures in work zone. -If VOC levels decrease to less than 5 ppm above background concentrations, resume work in accordance with RAP. |
| | More than 25 ppm above background concentration | -Stop work. -When source of vapors is abated and readings are less than 25 ppm above background, resume work in accordance with RAP. |
| Note: 1: 15-minute time-weighted average, parts per million (ppm), milligrams per cubic meter (mg/m ³) | | |

3.6 Groundwater Management Plan and Water Proofing

Based on the findings of the geotechnical and Phase II investigations, some dewatering may be required. Dewatering discharge water must meet the NYCDEP criteria for effluent to municipal sewers, in accordance with the NYCDEP Bureau of Wastewater Treatment (BWT) Wastewater Quality Control Permit, and all dewatering would require an appropriate permit (e.g., NYCDEP sewer discharge permit or NYSDEC State Pollutant Discharge Elimination System [SPDES] permit) or approval. Groundwater testing, and possibly pre-treatment (dependent upon the testing results), may be necessary to comply with NYCDEP requirements.

Alternatively, if the quantity of dewatering is limited, the water could be pumped, transported off-site and disposed of in accordance with applicable requirements.

As the proposed project is expected to extend beyond the observed groundwater table, a sheet-applied waterproofing membrane would be installed as part of foundation construction, in accordance with the recommendation made in Langan's *Geotechnical Engineering Study*. The waterproofing product will serve as a component of the remedial site cap, discussed in Section 4.1. Manufacturer's specifications for any proposed waterproofing products will be submitted to NYCDEP for review and approval prior to installation.

3.7 Storm-Water Pollution Prevention

Applicable laws and regulations pertaining to stormwater pollution prevention will be addressed during the proposed work. Erosion and sediment control measures identified in this RAP (silt fences and barriers and/or hay bale checks) will be installed around the entire perimeter of the remedial construction areas and inspected once a week and after every storm event to ensure that they are operating appropriately. Discharge locations will be inspected to determine whether erosion control measures are effective in preventing significant impacts to receptors. Results of inspections will be recorded in a logbook and maintained at the job site and available for inspection by NYCDEP. All necessary repairs shall be made immediately. Accumulated sediments will be removed as required to keep the silt fence and/or hay bale barriers functional. Undercutting or erosion of the silt fence anchor will be repaired immediately with appropriate backfill materials. Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

4.0 POST-EXCAVATION MEASURES

4.1 Importation of Fill and Site Cap

Prior to importation, clean fill/soil will be tested at the source facility at a frequency of one sample per 250 cubic yards for NYSDEC Part 375 VOCs, SVOCs, pesticides, PCBs, and metals and must meet the Part 375 RRCSCOs.

Recycled concrete aggregate (RCA) for use as backfill will only be allowed for import from facilities permitted or registered by NYSDEC. RCA material is not acceptable for, and will not be used as cover material. Facilities will be identified in the RCR. A PE or Qualified Environmental Professional (QEP) is responsible to ensure that the facility is compliant with 6NYCRR Part 360 registration and permitting requirements for the period of acquisition of RCA. RCA imported from compliant facilities will not require additional testing, unless required by NYSDEC under its terms for operation of the facility. RCA imported to the RAP Site must be derived from recognizable and uncontaminated concrete.

Following excavation and backfilling work, portions of the RAP Site will be capped by concrete, pavement, or other impervious materials as determined by the proposed development plans. In

soil excavation areas that will not be capped with impervious materials, a “soil cap” will be required and will consist of two feet of imported clean fill or existing on-site soils meeting the criteria for on-site reuse, as specified in Section 3.2.1. A demarcation layer, comprising construction fencing or geotextile fabric, will be installed below the clean soil cap and will act as a visual barrier between undisturbed soil and the clean soil cap.

It is anticipated that, in some proposed work areas, only limited soil disturbance will occur and the above capping requirements cannot be conducted without the risk of damage to existing landscaping including nearby mature trees. In these areas, any existing soil removed from the existing planting bed would be replaced with clean fill/soil meeting the above criteria and to the extent possible, some combination of a clean soil cap and mulch would still be installed. Soil restoration will not be required in areas where no existing soil is disturbed.

Upon completion of remedial site cap material sampling, a detailed remedial site cap report will be submitted to NYCDEP for review and approval prior to importation or on-site reuse. The report will include, at a minimum, an executive summary, narrative of the field sampling activities, laboratory data, and comparison of analytical results to the Part 375 RRSCOs.

4.2 Vapor Barrier

While the previous studies did not reveal evidence of a vapor intrusion concern, the proposed development is expected to extend beyond the observed groundwater table. As such, a sheet-applied waterproofing membrane will be installed as part of foundation construction as a conservative measure, in accordance with the recommendation made in Langan’s *Geotechnical Engineering Study*. A properly installed waterproofing layer would mitigate potential future vapor impacts at the RAP Site. Manufacturer’s specifications for any proposed waterproofing products will be submitted to NYCDEP for review and approval prior to installation.

5.0 QUALITY ASSURANCE/QUALITY CONTROL

All necessary analyses will be performed by a laboratory that has received approval from the New York State Department of Health’s Environmental Laboratory Approval Program (ELAP) for the methods that require analysis.

5.1 Sample Collection

Samples will be collected in accordance with the following procedures:

- Record sample observations (evidence of contamination, PID readings, soil classification) in field log book. If sampling using drilling technology, also maintain a dedicated soil boring log for each discrete boring location.
- Collect an aliquot of soil or groundwater using a dedicated and disposable plastic sample spoon or sample bailer and place in laboratory-supplied sample jars. Grab samples will be collected for VOC analyses. Composite samples will be collected for all other analyses, unless otherwise specified by the disposal facility.
- Seal and label the sample jars as described in Section 5.4 below and place in a chilled cooler.

5.2 Decontamination Procedures

To avoid contamination and cross-contamination of samples, only dedicated or disposable sampling equipment may be used to collect these samples. All non-disposable equipment involved in field sampling must be decontaminated before being brought to a sampling location, and must be properly decontaminated after use.

5.3 Sample Identification

All samples will be consistently identified in all field documentation, chain-of-custody documents and laboratory reports using an alpha-numeric or alpha-alpha code. For stockpiled soil, the alpha prefix will be “SP” and the numbers following the alpha prefix will correspond to excavated stockpiles, beginning with “1, 2, 3...”. For example, the first sample collected from the first stockpile will be labeled “SP-1-1” and the first sample collected from the second stockpile will be labeled “SP-2-1.”

For groundwater samples, the alpha prefix will be “GW” and the number following the prefix will correspond to the sample number. For example, the first groundwater sample collected for sample analysis will be labeled “GW-1” and the second sample will be “GW-2.”

5.4 Sample Labeling and Shipping

All sample containers will be labeled with the following information:

- Site identification
- Sample identification
- Date and time of collection
- Analysis(es) to be performed
- Sampler’s initials

Once the samples are collected and labeled, they will be placed in chilled coolers and stored in a cool area away from direct sunlight to await shipment to the laboratory. Samples will be shipped to the laboratory at a frequency that will not result in an exceedance of applicable holding times for sample methods. At the start and end of each workday, field personnel will add ice to the coolers as needed.

The samples will be prepared for shipment by placing each sample jar in a sealable plastic bag, then wrapping each bag in bubble wrap to prevent breakage, adding freezer packs and/or fresh ice in sealable plastic bags, and maintaining the chain-of-custody form(s) with the sample cooler(s). Samples will be shipped overnight (e.g., Federal Express) or transported by a laboratory courier to the designated laboratory. All coolers shipped to the laboratory will be sealed with mailing tape and a chain-of-custody (COC) seal to ensure that the coolers remain sealed during delivery.

5.5 Sample Custody

Field personnel will be responsible for maintaining the sample coolers in a secured location until they are picked up and/or sent to the laboratory. The record of possession of samples from the time they are obtained in the field to the time they are delivered to the laboratory or shipped off-site will be documented on COC forms. The COC forms will contain the following information: project name; names of sampling personnel; sample number; date and time of collection, sample matrix; and the signatures of individuals involved in, and the dates and times of sample transfers. Laboratory personnel will note the condition of the custody seal and sample containers at sample check-in.

5.6 Sample Documentation

A sample log book will be maintained. The following information, as a minimum will be recorded to the log.

- Sample identification number

- Sample location
- Field Observations
- Sample Type
- Analyses
- Date/Time of collection
- Collector's name
- Sample procedures and equipment utilized
- Date sent to laboratory/name of laboratory
- Copies of Site drawings indicating stockpile numbers and locations

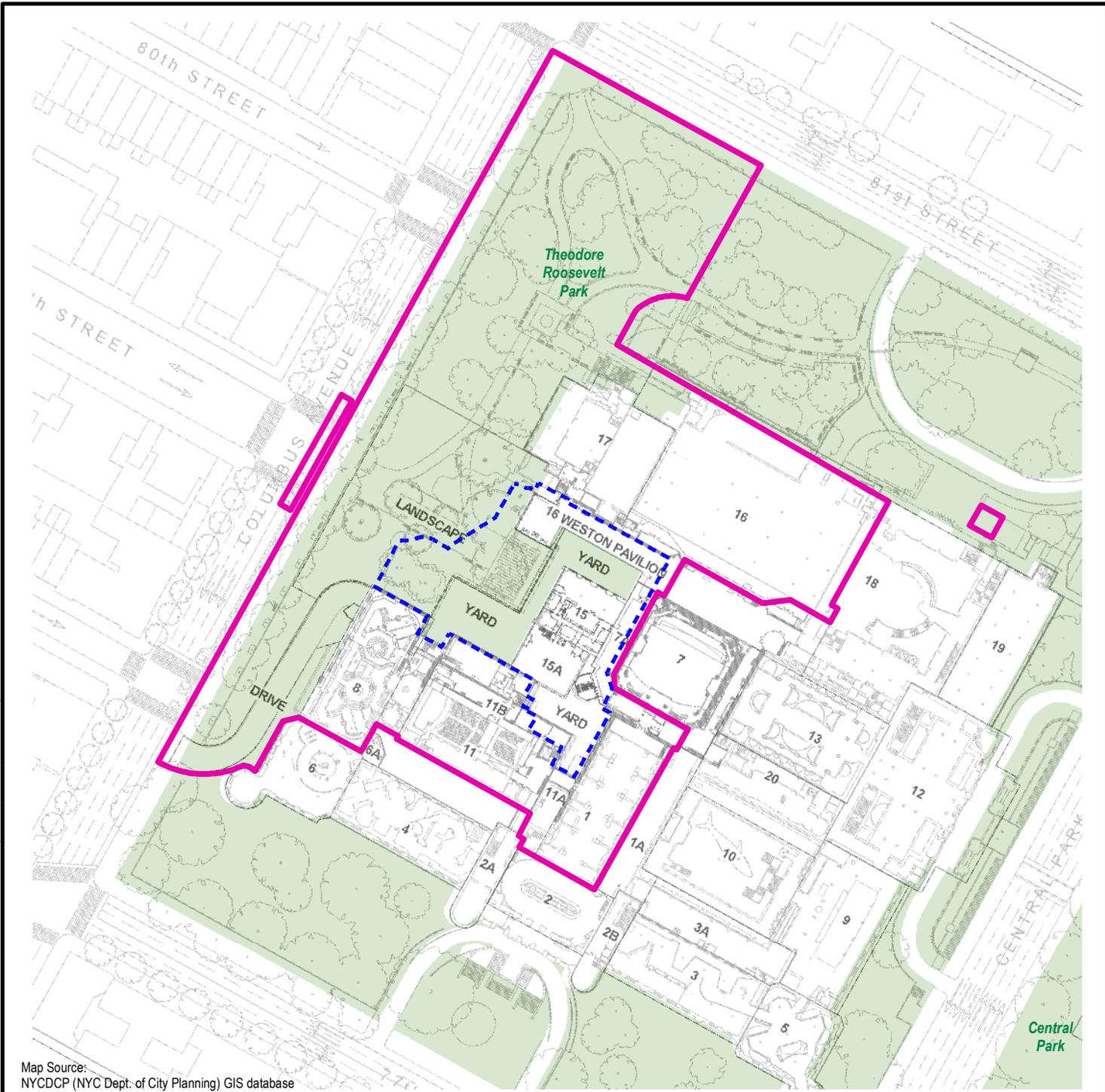
6.0 CLOSURE REPORT AND DOCUMENTATION

Upon completion of all NYCDEP-approved remedial requirements outlined in this RAP, a P.E.-certified Remedial Closure Report will be submitted to NYCDEP for review and approval. This report will demonstrate that all remedial activities have been properly implemented. At a minimum, the report will include all transportation manifests, soil disposal/recycling certificates, proof of importing and grading certified clean fill/top soil for all landscaped areas disturbed by the proposed project, and all soil analytical testing results for any imported fill/top soil.

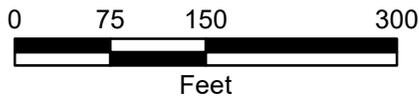
Copies of any pertinent NYSDEC correspondence, including but not limited to tank closure reports, investigative/remedial work plans, reports, and No Further Action letters, etc. will be submitted to NYCDEP as part of the Remedial Closure Report for filing purposes.

FIGURES

© 2017 AKRF, Inc. Environmental Consultants W:\Projects\12166 - AMNH EXPANSION\Technical\GIS and Graphics\hazmat\12166 Fig 1 site plan & alphanumeric grid.mxd



Map Source: NYCDP (NYC Dept. of City Planning) GIS database



LEGEND

-  PROPOSED NEW BUILDING FOOTPRINT
-  PROJECT SITE BOUNDARY



**Portions of the American Museum of Natural History
and Theodore Roosevelt Park**
New York, New York



Environmental Consultants
440 Park Avenue South, New York, N.Y. 10016

DATE
7/12/2017

PROJECT No.
12166

FIGURE
1

SITE PLAN

Portions of the American Museum of Natural History and Theodore Roosevelt Park

NEW YORK, NEW YORK

Construction Health and Safety Plan (CHASP)

AKRF Project Number: 12166

CEQR Number: 16DPR004M

Prepared for:

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FIGURES

Figure 1 – Site Location and Nearest Hospital

APPENDICES

- APPENDIX A – Potential Health Effects from On-site Contaminants
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- APPENDIX C – Emergency Hand Signals

1.0 INTRODUCTION

This Construction Health and Safety Plan (CHASP) was prepared in conjunction with the Remedial Action Plan (RAP) for the proposed Gilder Center project at the American Museum of Natural History (AMNH or the Museum) in Theodore Roosevelt Park. The proposed project comprises construction of the Gilder Center, which entails partial or full demolition of portions of the Museum including Sections 1, 7A, 8, 11, 11A, 11B, 15, 15A, 16, and 17, Weston Pavilion, the new location of The New York Times Capsule, and adjacent Museum yards, along with improvements to an approximately 75,000-square foot (SF) portion of Theodore Roosevelt Park and adjacent areas during construction of the proposed project (collectively, and as shown on Figure 1, as the “Remedial Action Plan Site” or “RAP Site”). The RAP Site, along with the remainder of the Museum buildings and grounds, are located at 200 Central Park West, on New York City-owned mapped parkland under the jurisdiction of the New York City Department of Parks and Recreation (NYC Parks) and defined legally as Tax Block 1130, part of Lot 1, as shown on Figure 1.

Areas where on-site subsurface disturbance work, related construction activities, and related construction mitigation measures will occur are referred to as remedial construction areas. Portions of the RAP Site outside of remedial construction areas where certain construction mitigation measures described in this RAP may be implemented, such as community air monitoring and some storm-water pollution prevention measures, will be referred to as auxiliary monitoring areas. Other portions of the RAP Site outside of both the remedial construction areas, and auxiliary monitoring areas may not require any mitigation measures based upon the proposed project-related work, and the proximity of the area relative to remedial construction areas and auxiliary monitoring areas. The boundaries and locations of the remedial construction areas, auxiliary monitoring areas, and other portions of the RAP Site will change throughout the duration of the proposed project work based upon the locations of construction work areas. The applicable construction mitigation measure logistics will be reevaluated throughout the duration of the proposed project work to reflect the changing work area boundaries.

Previous investigations indicated that on-site soil consists of historic fill materials with low levels of contaminants typical of soil at many urban sites, including throughout Manhattan. The purpose of this CHASP is to assign responsibilities, establish personnel protection standards and mandatory safety practices and procedures, and outline contingency measures with respect to health and safety in the event that unknown contamination is encountered. The CHASP is intended to minimize health and safety risks resulting from the known low levels of contaminants or potential presence of subsurface hazardous materials.

This plan is not designed to address geotechnical, mechanical, or general construction safety concerns, which will be addressed in separate documents, nor to supersede or replace any Occupational Safety and Health Administration (OSHA) regulation and/or local and state construction codes or regulations.

2.0 APPLICABILITY

Work subject to this CHASP includes all activities that disturb the existing soil on-site. The contractors and their subcontractors involved in the construction project will possess a copy of this CHASP and will provide a copy of this CHASP to their employees whose work involve any potential exposure to the on-site soil, and will complete all work in accordance with this CHASP.

2.1 Hazard Evaluation

The routes of exposure for on-site personnel are breathing of volatile and semi-volatile compounds or particulate-laden air released during soil disturbing activities, dermal contact, and accidental ingestion. Appendix A includes specific health effects from chemicals present or

potentially present on-site. Although some of the chemicals of concern listed in the sections below were not detected during the subsurface investigations, they are included herein as a precaution. The remaining sections of this CHASP address procedures (including training, air monitoring, work practices and emergency response) to reduce the potential for unnecessary and unacceptable exposure to these contaminants.

While many of these compounds are known or suspected to result in chronic illness from long-term exposures at sufficient doses and without the use of the appropriate protective equipment, due to the limited nature of the proposed construction, only acute effects are a potential concern for the proposed project.

This CHASP addresses potential environmental hazards from the presence of hazardous materials. It is not intended to address the normal hazards of construction work, which are separately covered by OSHA regulations and/or local and state construction codes and regulations.

2.1.1 Hazards of Concern

| Check all that apply | | |
|--|---|---|
| <input checked="" type="checkbox"/> Organic Chemicals | <input checked="" type="checkbox"/> Inorganic Chemicals | <input type="checkbox"/> Radiological |
| <input type="checkbox"/> Biological | <input type="checkbox"/> Explosive/Flammable | <input type="checkbox"/> Oxygen Deficient Atm |
| <input checked="" type="checkbox"/> Heat Stress | <input checked="" type="checkbox"/> Cold Stress | <input type="checkbox"/> Carbon Monoxide |
| Comments: No personnel are permitted to enter permit confined spaces. | | |

2.1.2 Physical Characteristics

| Check all that apply | | |
|--|---|---------------------------------|
| <input checked="" type="checkbox"/> Liquid | <input checked="" type="checkbox"/> Solid | <input type="checkbox"/> Sludge |
| <input checked="" type="checkbox"/> Vapors | <input type="checkbox"/> Unknown | <input type="checkbox"/> Other |
| Comments: | | |

2.1.3 Hazardous Materials

| Check all that apply | | | | | |
|---|---|---------------------------------|---|---|-----------------------------------|
| Chemicals | Solids | Sludges | Solvents | Oils | Other |
| <input type="checkbox"/> Acids | <input checked="" type="checkbox"/> Ash | <input type="checkbox"/> Paints | <input checked="" type="checkbox"/> Halogens | <input type="checkbox"/> Transformer | <input type="checkbox"/> Lab |
| <input type="checkbox"/> Caustics | <input type="checkbox"/> Asbestos | <input type="checkbox"/> Metals | <input checked="" type="checkbox"/> Petroleum | <input type="checkbox"/> Other DF | <input type="checkbox"/> Pharm |
| <input type="checkbox"/> Pesticides | <input type="checkbox"/> Tailings | <input type="checkbox"/> POTW | <input type="checkbox"/> Other | <input type="checkbox"/> Motor or Hydraulic Oil | <input type="checkbox"/> Hospital |
| <input checked="" type="checkbox"/> Petroleum | <input checked="" type="checkbox"/> Other | <input type="checkbox"/> Other | | <input type="checkbox"/> Gasoline | <input type="checkbox"/> Rad |
| <input type="checkbox"/> Inks | Fill material | | | <input checked="" type="checkbox"/> Fuel Oil | <input type="checkbox"/> MGP |
| <input type="checkbox"/> PCBs | | | | | <input type="checkbox"/> Mold |
| <input checked="" type="checkbox"/> Metals | | | | | <input type="checkbox"/> Cyanide |
| <input checked="" type="checkbox"/> Other: | | | | | |

| Check all that apply | | | | | |
|-----------------------------|---------------|----------------|-----------------|-------------|--------------|
| Chemicals | Solids | Sludges | Solvents | Oils | Other |
| VOCs & SVOCs | | | | | |

2.1.4 Chemicals of Concern

| Chemicals | REL/PEL/STEL | Health Hazards |
|--|---|--|
| Benzene | REL = 0.1 ppm PEL = 1 ppm STEL = 5 ppm | Irritation eyes, skin, nose, respiratory system; dizziness; headache, nausea, staggered gait; anorexia, lassitude, dermatitis; bone marrow depression, potential occupational carcinogen. |
| Toluene | REL = 100 ppm PEL = 200 ppm STEL = 300 ppm | Irritation eyes, nose; lassitude, confusion, euphoria, dizziness, headache; dilated pupils, lacrimation (discharge of tears); anxiety, muscle fatigue, insomnia; paresthesia (skin tingling or numbness); dermatitis; liver, kidney damage. |
| Ethylbenzene | REL = 100 ppm PEL = 100 ppm | Irritation eyes, skin, mucous membrane; headache; dermatitis; narcosis, coma. |
| Xylenes | REL = 100 ppm PEL = 100 ppm | Irritation eyes, skin, nose, throat; dizziness, excitement, drowsiness, poor coordination, staggering gait; corneal vacuolization; anorexia, nausea, vomiting, abdominal pain; dermatitis. |
| Fuel Oil | REL = 350 mg/m ³ PEL = 400 ppm | Nausea, irritation – eyes, hypertension, headache, light-headedness, loss of appetite, poor coordination; long-term exposure – kidney damage, blood clotting problems; potential carcinogen. |
| Lead | REL=0.1 mg/m ³ PEL=0.05 mg/m ³ | Weakness, lassitude, insomnia; facial pallor, pale eye, anorexia, low-weight, malnutrition, constipation, abdominal pain, colic; anemia; gingival lead line; tremors, paralysis wrists and ankles; encephalopathy; kidney disease; irritation eyes; hypotension. |
| Mercury | REL = 0.1 mg/m ³ PEL = 0.05 mg/m ³ | Irritation eyes, skin; cough, chest pain, dyspnea (breathing difficulty), bronchitis, pneumonitis; tremor, insomnia, irritability, indecision, headache, lassitude (weakness, exhaustion); stomatitis, salivation; gastrointestinal disturbance, anorexia, weight loss; proteinuria. |
| Arsenic | REL = 0.002 mg/m ³ PEL = 0.01 mg/m ³ | Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, respiratory irritation, hyperpigmentation of skin; potential occupational carcinogen |
| Polycyclic Aromatic Hydrocarbons (PAHs) | PEL = 5 mg/m ³ | Harmful effects to skin, bodily fluids, and ability to fight disease, reproductive problems; [potential occupational carcinogen] |
| Trichloroethylene (TCE) | REL = 25 ppm PEL = 100 ppm STEL = 200 ppm | Irritation eyes, skin; headache, visual disturbance, weakness, exhaustion, dizziness, tremor, drowsiness, nausea, vomiting; dermatitis; cardiac arrhythmias, paresthesia; liver injury; potential occupational carcinogen |
| <p>Comments: REL = NIOSH Recommended Exposure Limit PEL = OSHA Permissible Exposure Limit STEL = OSHA Short Term Exposure Limit ppm = parts per million mg/m³ = milligrams per cubic meter</p> | | |

3.0 HEALTH AND SAFETY OFFICER

A Site Safety Officer (SSO) will be designated by the project team to oversee implementation of overall health and safety for the project. AKRF shall designate an on-site Environmental Safety Officer (ESO) to provide detailed oversight for specific construction activities, as required by the RAP, and will provide the SSO with information regarding routine Site work and/or health and safety issues, if they occur. The SSO and ESO will be competent persons responsible for the implementation of this plan. The SSO and ESO will have completed 40-hour training courses (updated by an annual refresher) that meet OSHA requirements of 29 CFR Part 1910, Occupational Safety and Health Standards. The SSO and ESO have stop-work authorization, which they will execute on their determination of an imminent safety hazard, emergency situation, or other potentially dangerous situation.

3.1 Training

All personnel who enter the work area while activities involving petroleum-contaminated materials or hazardous materials are being performed will have completed a 40-hour training course that meets OSHA requirements of the Code of Federal Regulations, Title 29 (29 CFR) Part 1910, Occupational Safety and Health Standards. In addition, all personnel will have up-to-date 8-hour refresher training. The training will allow personnel to recognize and understand the potential hazards to health and safety. All field personnel must attend a training program, whose purpose is to:

- Make them aware of the potential hazards they may encounter;
- Provide the knowledge and skills necessary for them to perform the work with minimal risk to health and safety; Make them aware of the purpose and limitations of safety equipment; and
- Ensure that they can safely avoid or escape from emergencies.

Each member of the field crew will be instructed in these objectives before he/she goes onto the RAP Site. A site safety meeting will be conducted at the start of the project. Additional meetings shall be conducted, as necessary, for new personnel working at the RAP Site.

3.2 Medical Surveillance Program

All AKRF and contractor or subcontractor personnel performing activities involving petroleum-contaminated materials or hazardous materials at the RAP Site are required to have passed a complete medical surveillance examination in accordance with 29 CFR 1910.120 (f). A physician's medical release for work will be confirmed by the SSO before an employee can begin site activities. The medical release shall consider the type of work to be performed and the required PPE. The medical examination will, at a minimum, be provided annually and upon termination of hazardous waste site work.

3.3 Site Work Zones

During any activities involving subsurface disturbance, the work area must be divided into various zones to prevent the spread of contamination, ensure that proper protective equipment is donned, and provide an area for decontamination.

The Exclusion Zone is defined as the area where exposure to impacted media could be encountered. The Contamination Reduction Zone (CRZ) is the area where decontamination procedures take place and is located next to the Exclusion Zone. The Support Zone is the area where support facilities such as vehicles, fire extinguishers, and first aid supplies are located. The emergency staging area (part of the Support Zone) is the area where all workers on-site would

assemble in the event of an emergency. A summary of these areas is provided below. These zones may be changed by the ESO, depending on that day's activities. All field personnel will be informed of the location of these zones before work begins.

| Task | Exclusion Zone | CRZ | Support Zone |
|--|--|--|---------------------|
| Soil Excavation, and Loading | 10 ft from soil movement area | 25 ft from soil movement area | As Needed |
| Foundation Construction and Dewatering | 10 ft from construction or dewatering area | 25 ft from construction or dewatering area | As Needed |
| Comments: Control measures such as construction fencing, "caution tape" and/or traffic cones will be placed around the perimeter of the work area when work is being done in a public area. | | | |

3.4 Personal Protection Equipment

The personal protection equipment required for various kinds of tasks are based on 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response, Appendix B, "General Description and Discussion of the Levels of Protection and Protective Gear."

AKRF field personnel and other RAP Site personnel shall wear, at a minimum, Level D personal protective equipment. The protection will be based on the air monitoring described in Section 2.6.

3.5 General Work Practices

To protect the health and safety of the field personnel, field personnel will adhere to the guidelines listed below during activities involving subsurface disturbance:

- Eating, drinking, and chewing gum or tobacco are prohibited except in designated areas on the RAP Site. These areas will be designated by the SSO and/or ESO. Smoking, including e-cigarettes, is prohibited throughout the RAP Site.
- Workers must wash their hands thoroughly on leaving the work area and before eating, drinking, or any other such activity.
- The workers should shower as soon as possible after leaving the Site. Contact with contaminated or suspected surfaces should be avoided.
- The buddy system should always be used; each buddy should watch for signs of fatigue, exposure, and heat/cold stress.

3.6 Work Zone Air Monitoring

Monitoring with a particulate air monitor will be conducted during excavation and other earth moving activities only in the event that contamination is encountered. Real time air monitoring will be performed with a photoionization detector (PID) during sampling and excavation work at areas where petroleum or other volatile organic compounds are detected. Measurements would be taken prior to commencement of work and continuously during the work as outlined in the following table. Measurements will be made as close to the workers as practicable and at the breathing height of the workers. The ESO will set up the equipment and confirm that it is working properly. His/her designee may oversee the air measurements during the day. The initial measurement for the day will be performed before the start of work and will establish the back-

ground level for that day. The final measurement for the day will be performed after the end of work. The action levels and required responses are listed in the following table.

Action Levels and Required Safety Response Actions

| Instrument | Task to be Monitored | Action Level | Response Action |
|--|--|---|---|
| PID (OVM 580B or equivalent) | All excavation activities disturbing contaminated soil, if any | Less than 10 ppm in breathing zone. | Level D or D-Modified |
| | | Between 10 and 100 ppm | Level C |
| | | More than 100 ppm | Stop work. Resume work when readings are less than 100 ppm. |
| Particulate monitor (MIE 1000 Personal DataRam or equivalent) | All excavation activities disturbing contaminated soil, if any | Less than 5 mg/m ³ | Level D |
| | | Between 5 mg/m ³ and 125 mg/m ³ | Level C. Apply dust suppression measures. If < 5 mg/m ³ , resume work using Level D. Otherwise, use Level C. |
| | | Above 125 mg/m ³ | Stop work. Apply additional dust suppression measures. Resume work when less than 125 mg/m ³ . |

Field personnel will be trained in the proper operation of all field instruments at the start of the field program. Instruction manuals for the equipment will be on file at the Site for referencing proper operation, maintenance and calibration procedures.

The equipment will be calibrated according to manufacturer specifications at the start of each day of fieldwork. If an instrument fails calibration, the project manager will be contacted immediately to obtain a replacement instrument and arrange for repairs. A calibration log will be maintained to record the date of each calibration, any failure to calibrate and corrective actions taken. The PID will be calibrated each day using 100 parts per million (ppm) isobutylene standard gas.

4.0 DECONTAMINATION PROCEDURES

4.1 Personnel Decontamination

Personnel decontamination (decon), if deemed necessary by the ESO, will take place in a designated decontamination area. This area will be delineated during each stage of work. Personnel decontamination will consist of the following steps:

- Soap and potable water wash and potable water rinse of gloves;
- Coverall removal (if applicable);
- Glove removal;
- Disposable clothing removal; and
- Field wash of hands and face.

4.2 Sampling Equipment Decontamination

Any non-disposable sampling equipment for confirmatory sampling or other equipment that is in contact with contaminated materials will be decontaminated in accordance with the following procedure:

- Double wash with solution of Simple Green[®] and clean tap water;
- Double rinse with clean tap water;
- Rinse with clean distilled water; and
- Allow equipment to air dry.

4.3 Heavy Equipment Decontamination

If heavy equipment comes in contact with contaminated materials, it will be decontaminated prior to being relocated to a clean area or leaving the Site. A designated decontamination pad will be constructed, where soil, dust, or oil will be washed off the exterior, undercarriage, and wheels or tracks of the equipment. Wash water will be collected for treatment and/or disposal.

5.0 EMERGENCY RESPONSE

5.1 Emergency Procedures

In the event that an emergency develops at the Site, the procedures delineated herein are to be immediately followed. Emergency conditions are considered to exist if:

- Any member of the field crew is involved in an accident or experiences any adverse effects or symptoms of exposure while on-site; and
- A condition is discovered that suggests the existence of a situation more hazardous than anticipated.
- A spill of oil or other hazardous materials.

General emergency procedures, and specific procedures for personal injury, and chemical exposure are described below. In the event of an accident or emergency, an Incident Report form should be filled out and placed in the project file. An example Incident Report form is provided in Appendix B. Information on emergency hand signals is provided in Appendix C.

5.1.1 Chemical Exposure

If a member of the field crew demonstrates symptoms of chemical exposure the procedures outlined below should be followed:

- Another team member (buddy) should remove the individual from the immediate area of contamination. The buddy should communicate to the ESO or SSO (via voice and hand signals) of the chemical exposure. The SSO should contact the appropriate emergency response agency.
- Precautions should be taken to avoid exposure of other individuals to the chemical.
- If the chemical is on the individual's clothing, the chemical should be neutralized or removed if it is safe to do so.
- If the chemical has contacted the skin, the skin should be washed with copious amounts of water.

- In case of eye contact, an emergency eye wash should be used. Eyes should be washed for at least 15 minutes.
- All chemical exposure incidents must be reported in writing to the AKRF Health and Safety Officer. The SSO is responsible for completing the Incident Report Form.

5.1.2 Personal Injury

In case of personal injury at the Site, the following procedures should be followed:

- Another team member (buddy) should signal the ESO or SSO that an injury has occurred.
- A field team member trained in first aid can administer treatment to an injured worker.
- If deemed necessary, the victim should then be transported to the nearest hospital or medical center. If necessary, an ambulance should be called to transport the victim.
- The SSO is responsible for making certain that an Incident Report Form is completed. This form is to be submitted to the ESO. Follow-up action should be taken to correct the situation that caused the accident.
- Any incident (near miss, property damage, first aid, medical treatment, etc.) must be reported. The SSO should contact the appropriate emergency response agency.

A first-aid kit, eye-wash, and blood-borne pathogens kit will be kept on-site during the field activities.

5.1.3 Evacuation Procedures

- The SSO will initiate evacuation procedures by signaling to leave the Site or containment structure;
- All personnel in the work area should evacuate the area and meet in the common designated area;
- All personnel suspected to be in or near the contract work area should be accounted for and the whereabouts or missing persons determined immediately; and
- The SSO will then give further instruction.

5.1.4 Procedures Implemented in the Event of a Major Fire, Explosion, or Emergency

- The SSO shall notify the paramedics and/or fire department, as necessary;
- Signal the evacuation procedure previously outlined and implement the entire procedure;
- Isolate the area;
- Stay upwind of any fire;
- Keep the area surrounding the problem source clear after the incident occurs;
- Complete accident report for and distribute to appropriate personnel.

5.1.5 Spill Response

All personnel must take every precaution to minimize the potential for spills during site operations. Any spill will be reported immediately to the SSO and ESO. The ESO will

then determine and report any required spills to the NYCDEP and/or NYSDEC Hotlines. Spill control apparatus (sorbent materials) will be located on-site. All materials used for the clean up of spills will be containerized and labeled separately from other wastes. The ESO, in consultation with AKRF's Project Manager, will determine if additional spill response measures are required.

5.2 Hospital Directions

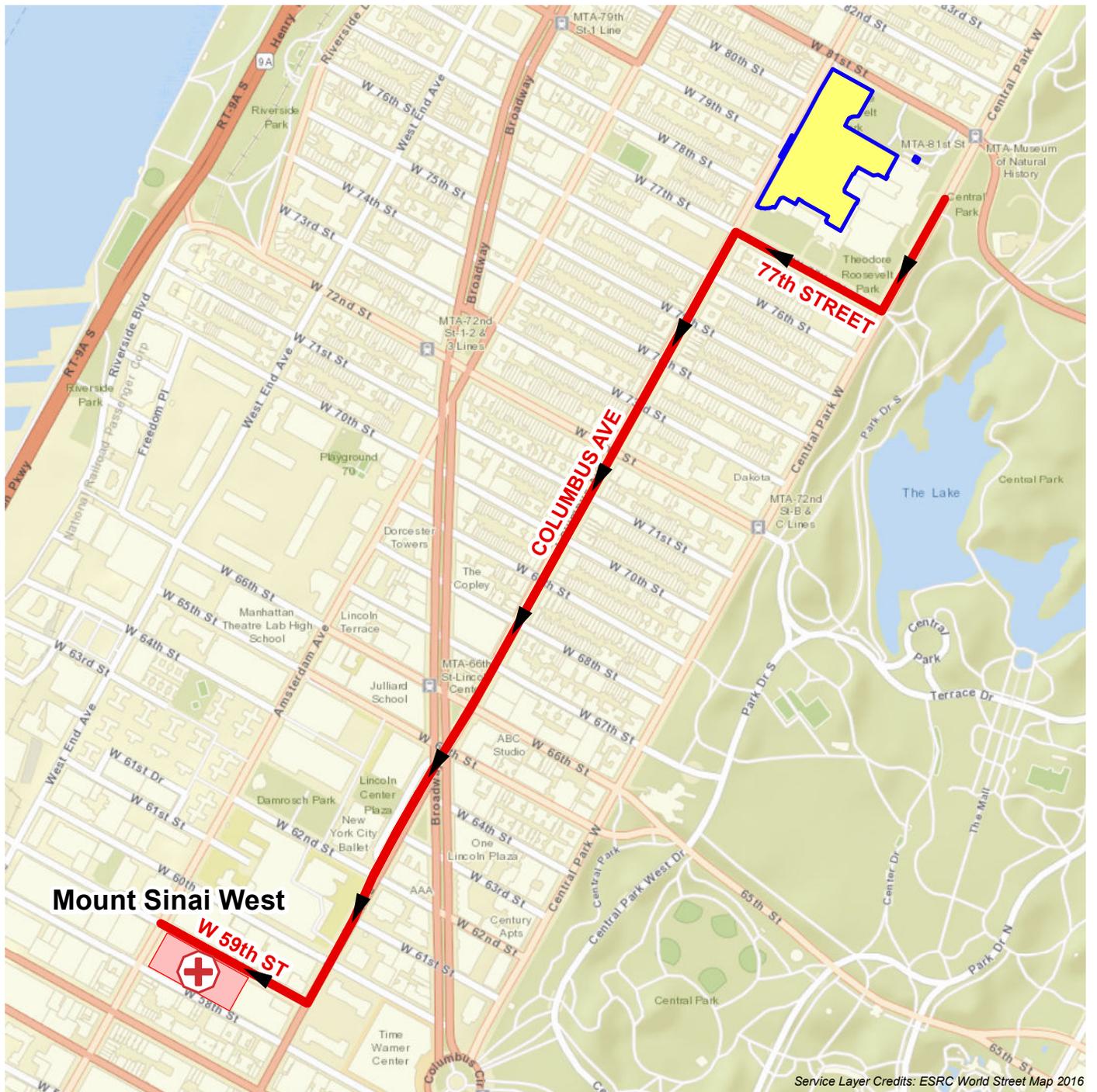
| | |
|--------------------------|--|
| Hospital Name: | Mount Sinai West |
| Phone Number: | (212) 523-4000 |
| Address/Location: | 1000 Tenth Avenue – New York, New York (The Emergency Department is located on West 59 th Street between Columbus Avenue and Amsterdam Avenue) |
| Directions: | 1. Go SOUTH on <i>Central Park West</i> 2. Turn RIGHT onto <i>West 77th Street</i> 3. Go SOUTH on <i>Columbus Avenue</i> 4. Turn RIGHT onto <i>West 59th Street</i> The Emergency Department entrance will be on the LEFT. |

5.3 CHASP Emergency Contacts

| Company | Individual Name | Title | Contact Number |
|--|------------------------|---|--|
| AKRF | Mr. Marc Godick | Project Director | 914-922-2356 (office) |
| | Mr. Eric Park | Project Manager | 646-388-9532 (office) 646-752-5332 (cell) |
| | Mr. William Grossett | AKRF Environmental Safety Officer | 646-388-9546 (office) 734-904-1054 (cell) |
| | Mr. Thomas Giordano | Deputy AKRF Health and Safety Officer | 646-388-9758 (office) 914-602-6956 (cell) |
| Security Control | NA | AMNH 24-hour security | 212-769-5222 |
| Museum Representative | Ms. Kala Harinarayanan | AMNH – Senior Director of Human Resources | 212-769-5226 (office) 917-584-5302 (cell) |
| Construction Project Manager | Mr. Craig Zegler | Turner - Project Director | 212-229-6000 |
| Site Safety Officer | To Be Determined | To Be Determined | To Be Determined |
| Ambulance, Fire Department & Police Department | - | - | 911 |
| Local Poison Control | | | 212-764-7667 Pm/weekend – 212-340-4494 |
| NYCDEP Hotline | | | 718-DEP-HELP |
| NYSDEC Spill Hotline | - | - | 800-457-7362 |

FIGURE

© 2016 AKRF, Inc. Environmental Consultants W:\IP\Projects\12166 - AMNH EXPANSION\Technical\GIS and Graphics\Hazmat\12166 Fig_1 Hospital Route Map.mxd



Service Layer Credits: ESRC World Street Map 2016

Legend



Hospital Location



Route to Hospital



Project Site Boundary



Mount Sinai West Hospital
 1000 Tenth Avenue – New York, New York
 (212) 523-4000
 (The ER is located on West 59th Street between Columbus Avenue and Amsterdam Avenue)

Portions of the American Museum of Natural History and Theodore Roosevelt Park
 New York, New York



Environmental Consultants
 440 Park Avenue South, New York, NY 10016

DATE
7/12/2017

PROJECT No.
12166

FIGURE
1

HOSPITAL ROUTE MAP

APPENDIX A
POTENTIAL HEALTH EFFECTS FROM ON-SITE CONTAMINANTS

This fact sheet answers the most frequently asked health questions (FAQs) about arsenic. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Exposure to higher than average levels of arsenic occurs mostly in the workplace, near hazardous waste sites, or in areas with high natural levels. At high levels, inorganic arsenic can cause death. Exposure to lower levels for a long time can cause a discoloration of the skin and the appearance of small corns or warts. Arsenic has been found at 1,014 of the 1,598 National Priority List sites identified by the Environmental Protection Agency (EPA).

What is arsenic?

Arsenic is a naturally occurring element widely distributed in the earth's crust. In the environment, arsenic is combined with oxygen, chlorine, and sulfur to form inorganic arsenic compounds. Arsenic in animals and plants combines with carbon and hydrogen to form organic arsenic compounds.

Inorganic arsenic compounds are mainly used to preserve wood. Organic arsenic compounds are used as pesticides, primarily on cotton plants.

What happens to arsenic when it enters the environment?

- Arsenic cannot be destroyed in the environment. It can only change its form.
- Arsenic in air will settle to the ground or is washed out of the air by rain.
- Many arsenic compounds can dissolve in water.
- Fish and shellfish can accumulate arsenic, but the arsenic in fish is mostly in a form that is not harmful.

How might I be exposed to arsenic?

- Eating food, drinking water, or breathing air containing arsenic.
- Breathing contaminated workplace air.
- Breathing sawdust or burning smoke from wood treated with arsenic.
- Living near uncontrolled hazardous waste sites containing arsenic.
- Living in areas with unusually high natural levels of arsenic in rock.

How can arsenic affect my health?

Breathing high levels of inorganic arsenic can give you a sore throat or irritated lungs. Ingesting high levels of inorganic arsenic can result in death. Lower levels of arsenic can cause nausea and vomiting, decreased production of red and white blood cells, abnormal heart rhythm, damage to blood vessels, and a sensation of "pins and needles" in hands and feet.

Ingesting or breathing low levels of inorganic arsenic for a long time can cause a darkening of the skin and the

ToxFAQs™ Internet address is <http://www.atsdr.cdc.gov/toxfaq.html>

appearance of small “corns” or “warts” on the palms, soles, and torso.

Skin contact with inorganic arsenic may cause redness and swelling.

Organic arsenic compounds are less toxic than inorganic arsenic compounds. Exposure to high levels of some organic arsenic compounds may cause similar effects as inorganic arsenic.

How likely is arsenic to cause cancer?

Several studies have shown that inorganic arsenic can increase the risk of lung cancer, skin cancer, bladder cancer, liver cancer, kidney cancer, and prostate cancer. The World Health Organization (WHO), the Department of Health and Human Services (DHHS), and the EPA have determined that inorganic arsenic is a human carcinogen.

How can arsenic affect children?

We do not know if exposure to arsenic will result in birth defects or other developmental effects in people. Birth defects have been observed in animals exposed to inorganic arsenic.

It is likely that health effects seen in children exposed to high amounts of arsenic will be similar to the effects seen in adults.

How can families reduce the risk of exposure to arsenic?

- If you use arsenic-treated wood in home projects, you should wear dust masks, gloves, and protective clothing to decrease exposure to sawdust.
- If you live in an area with high levels of arsenic in water or soil, you should use cleaner sources of water and limit contact with soil.

Is there a medical test to show whether I've been exposed to arsenic?

There are tests to measure the level of arsenic in blood, urine, hair, or fingernails. The urine test is the most reliable test for arsenic exposure within the last few days. Tests on hair and fingernails can measure exposure to high levels of arsenic over the past 6-12 months. These tests can determine if you have been exposed to above-average levels of arsenic. They cannot predict how the arsenic levels in your body will affect your health.

Has the federal government made recommendations to protect human health?

EPA has set limits on the amount of arsenic that industrial sources can release to the environment and has restricted or canceled many uses of arsenic in pesticides. EPA has set a limit of 0.01 parts per million (ppm) for arsenic in drinking water.

The Occupational Safety and Health Administration has set limits of 10 µg arsenic per cubic meter of workplace air (10 µg/m³) for 8 hour shifts and 40 hour work weeks.

Source of Information

Agency for Toxic Substances and Disease Registry (ATSDR). 2000. Toxicological Profile for Arsenic. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs™ Internet address is <http://www.atsdr.cdc.gov/toxfaq.html>. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



This fact sheet answers the most frequently asked health questions (FAQs) about benzene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. This information is important because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Benzene is a widely used chemical formed from both natural processes and human activities. Breathing benzene can cause drowsiness, dizziness, and unconsciousness; long-term benzene exposure causes effects on the bone marrow and can cause anemia and leukemia. Benzene has been found in at least 813 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What is benzene?

(Pronounced bĕn'zĕn')

Benzene is a colorless liquid with a sweet odor. It evaporates into the air very quickly and dissolves slightly in water. It is highly flammable and is formed from both natural processes and human activities.

Benzene is widely used in the United States; it ranks in the top 20 chemicals for production volume. Some industries use benzene to make other chemicals which are used to make plastics, resins, and nylon and synthetic fibers. Benzene is also used to make some types of rubbers, lubricants, dyes, detergents, drugs, and pesticides. Natural sources of benzene include volcanoes and forest fires. Benzene is also a natural part of crude oil, gasoline, and cigarette smoke.

What happens to benzene when it enters the environment?

- Industrial processes are the main source of benzene in the environment.
- Benzene can pass into the air from water and soil.
- It reacts with other chemicals in the air and breaks down within a few days.
- Benzene in the air can attach to rain or snow and be carried back down to the ground.

- It breaks down more slowly in water and soil, and can pass through the soil into underground water.
- Benzene does not build up in plants or animals.

How might I be exposed to benzene?

- Outdoor air contains low levels of benzene from tobacco smoke, automobile service stations, exhaust from motor vehicles, and industrial emissions.
- Indoor air generally contains higher levels of benzene from products that contain it such as glues, paints, furniture wax, and detergents.
- Air around hazardous waste sites or gas stations will contain higher levels of benzene.
- Leakage from underground storage tanks or from hazardous waste sites containing benzene can result in benzene contamination of well water.
- People working in industries that make or use benzene may be exposed to the highest levels of it.
- A major source of benzene exposures is tobacco smoke.

How can benzene affect my health?

Breathing very high levels of benzene can result in death, while high levels can cause drowsiness, dizziness, rapid heart rate, headaches, tremors, confusion, and unconsciousness. Eating or drinking foods containing high levels of benzene can cause vomiting, irritation of the stomach, dizziness, sleepiness, convulsions, rapid heart rate, and death.

ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html>

The major effect of benzene from long-term (365 days or longer) exposure is on the blood. Benzene causes harmful effects on the bone marrow and can cause a decrease in red blood cells leading to anemia. It can also cause excessive bleeding and can affect the immune system, increasing the chance for infection.

Some women who breathed high levels of benzene for many months had irregular menstrual periods and a decrease in the size of their ovaries. It is not known whether benzene exposure affects the developing fetus in pregnant women or fertility in men.

Animal studies have shown low birth weights, delayed bone formation, and bone marrow damage when pregnant animals breathed benzene.

How likely is benzene to cause cancer?

The Department of Health and Human Services (DHHS) has determined that benzene is a known human carcinogen. Long-term exposure to high levels of benzene in the air can cause leukemia, cancer of the blood-forming organs.

Is there a medical test to show whether I've been exposed to benzene?

Several tests can show if you have been exposed to benzene. There is test for measuring benzene in the breath; this test must be done shortly after exposure. Benzene can also be measured in the blood, however, since benzene disappears rapidly from the blood, measurements are accurate only for recent exposures.

In the body, benzene is converted to products called metabolites. Certain metabolites can be measured in the urine. However, this test must be done shortly after exposure and is not a reliable indicator of how much benzene you have been exposed to, since the metabolites may be present in urine from other sources.

Has the federal government made recommendations to protect human health?

The EPA has set the maximum permissible level of benzene in drinking water at 0.005 milligrams per liter (0.005 mg/L). The EPA requires that spills or accidental releases into the environment of 10 pounds or more of benzene be reported to the EPA.

The Occupational Safety and Health Administration (OSHA) has set a permissible exposure limit of 1 part of benzene per million parts of air (1 ppm) in the workplace during an 8-hour workday, 40-hour workweek.

Glossary

Anemia: A decreased ability of the blood to transport oxygen.

Carcinogen: A substance with the ability to cause cancer.

CAS: Chemical Abstracts Service.

Chromosomes: Parts of the cells responsible for the development of hereditary characteristics.

Metabolites: Breakdown products of chemicals.

Milligram (mg): One thousandth of a gram.

Pesticide: A substance that kills pests.

References

This ToxFAQs information is taken from the 1997 Toxicological Profile for Benzene (update) produced by the Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services, Public Health Service in Atlanta, GA.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop E-29, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 404-498-0093. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html> ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



This fact sheet answers the most frequently asked health questions (FAQs) about ethylbenzene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Ethylbenzene is a colorless liquid found in a number of products including gasoline and paints. Breathing very high levels can cause dizziness and throat and eye irritation. Ethylbenzene has been found in at least 731 of the 1,467 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What is ethylbenzene?

(Pronounced ěth' əl bĕn' zĕn')

Ethylbenzene is a colorless, flammable liquid that smells like gasoline. It is found in natural products such as coal tar and petroleum and is also found in manufactured products such as inks, insecticides, and paints.

Ethylbenzene is used primarily to make another chemical, styrene. Other uses include as a solvent, in fuels, and to make other chemicals.

What happens to ethylbenzene when it enters the environment?

- Ethylbenzene moves easily into the air from water and soil.
- It takes about 3 days for ethylbenzene to be broken down in air into other chemicals.
- Ethylbenzene may be released to water from industrial discharges or leaking underground storage tanks.
- In surface water, ethylbenzene breaks down by reacting with other chemicals found naturally in water.
- In soil, it is broken down by soil bacteria.

How might I be exposed to ethylbenzene?

- Breathing air containing ethylbenzene, particularly in areas near factories or highways.
- Drinking contaminated tap water.
- Working in an industry where ethylbenzene is used or made.
- Using products containing it, such as gasoline, carpet glues, varnishes, and paints.

How can ethylbenzene affect my health?

Limited information is available on the effects of ethylbenzene on people's health. The available information shows dizziness, throat and eye irritation, tightening of the chest, and a burning sensation in the eyes of people exposed to high levels of ethylbenzene in air.

Animals studies have shown effects on the nervous system, liver, kidneys, and eyes from breathing ethylbenzene in air.

How likely is ethylbenzene to cause cancer?

The EPA has determined that ethylbenzene is not classified as to human carcinogenicity.

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No studies in people have shown that ethylbenzene exposure can result in cancer. Two available animal studies suggest that ethylbenzene may cause tumors.

How can ethylbenzene affect children?

Children may be exposed to ethylbenzene through inhalation of consumer products, including gasoline, paints, inks, pesticides, and carpet glue. We do not know whether children are more sensitive to the effects of ethylbenzene than adults.

It is not known whether ethylbenzene can affect the development of the human fetus. Animal studies have shown that when pregnant animals were exposed to ethylbenzene in air, their babies had an increased number of birth defects.

How can families reduce the risk of exposure to ethylbenzene?

Exposure to ethylbenzene vapors from household products and newly installed carpeting can be minimized by using adequate ventilation.

Household chemicals should be stored out of reach of children to prevent accidental poisoning. Always store household chemicals in their original containers; never store them in containers children would find attractive to eat or drink from, such as old soda bottles. Gasoline should be stored in a gasoline can with a locked cap.

Sometimes older children sniff household chemicals, including ethylbenzene, in an attempt to get high. Talk with your children about the dangers of sniffing chemicals.

Is there a medical test to show whether I've been exposed to ethylbenzene?

Ethylbenzene is found in the blood, urine, breath, and

some body tissues of exposed people. The most common way to test for ethylbenzene is in the urine. This test measures substances formed by the breakdown of ethylbenzene. This test needs to be done within a few hours after exposure occurs, because the substances leave the body very quickly.

These tests can show you were exposed to ethylbenzene, but cannot predict the kind of health effects that might occur.

Has the federal government made recommendations to protect human health?

The EPA has set a maximum contaminant level of 0.7 milligrams of ethylbenzene per liter of drinking water (0.7 mg/L).

The EPA requires that spills or accidental releases into the environment of 1,000 pounds or more of ethylbenzene be reported to the EPA.

The Occupational Safety and Health Administration (OSHA) has set an occupational exposure limit of 100 parts of ethylbenzene per million parts of air (100 ppm) for an 8-hour workday, 40-hour workweek.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 1999. Toxicological profile for ethylbenzene. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html> ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



This fact sheet answers the most frequently asked health questions (FAQs) about fuel oils. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

SUMMARY: Fuel oils are liquid mixtures produced from petroleum, and their use mostly involves burning them as fuels. Drinking or breathing fuel oils may cause nausea or nervous system effects. However, exposure under normal use conditions is not likely to be harmful. Fuel oils have been found in at least 26 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What are fuel oils?

(Pronounced fyoo'el oilz)

Fuel oils are a variety of yellowish to light brown liquid mixtures that come from crude petroleum. Some chemicals found in fuel oils may evaporate easily, while others may more easily dissolve in water.

Fuel oils are produced by different petroleum refining processes, depending on their intended uses. Fuel oils may be used as fuel for engines, lamps, heaters, furnaces, and stoves, or as solvents.

Some commonly found fuel oils include kerosene, diesel fuel, jet fuel, range oil, and home heating oil. These fuel oils differ from one another by their hydrocarbon compositions, boiling point ranges, chemical additives, and uses.

What happens to fuel oils when they enter the environment?

- Some chemicals found in fuel oils may evaporate into the air from open containers or contaminated soil or water.
- Some chemicals found in fuel oils may dissolve in water after spills to surface waters or leaks from underground storage tanks.

- Some chemicals found in fuel oils may stick to particles in water, which will eventually cause them to settle to the bottom sediment.
- Some of the chemicals found in fuel oils may be broken down slowly in air, water, and soil by sunlight or small organisms.
- Some of the chemicals found in fuel oils may build up significantly in plants and animals.

How might I be exposed to fuel oils?

- Using a home kerosene heater or stove, or using fuel oils at work.
- Breathing air in home or building basements that has been contaminated with fuel oil vapors entering from the soil.
- Drinking or swimming in water that has been contaminated with fuel oils from a spill or a leaking underground storage tank.
- Touching soil contaminated with fuel oils.
- Using fuel oils to wash paint or grease from skin or equipment.

How can fuel oils affect my health?

Little information is available about the health effects that may be caused by fuel oils. People who use kerosene

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stoves for cooking do not seem to have any health problems related to their exposure.

Breathing some fuel oils for short periods may cause nausea, eye irritation, increased blood pressure, headache, lightheadedness, loss of appetite, poor coordination, and difficulty concentrating. Breathing diesel fuel vapors for long periods may cause kidney damage and lower your blood's ability to clot.

Drinking small amounts of kerosene may cause vomiting, diarrhea, coughing, stomach swelling and cramps, drowsiness, restlessness, painful breathing, irritability, and unconsciousness. Drinking large amounts of kerosene may cause convulsions, coma, or death. Skin contact with kerosene for short periods may cause itchy, red, sore, or peeling skin.

How likely are fuel oils to cause cancer?

The International Agency for Research on Cancer (IARC) has determined that some fuel oils (heavy) may possibly cause cancer in humans, but for other fuel oils (light) there is not enough information to make a determination. IARC has also determined that occupational exposures to fuel oils during petroleum refining are probably carcinogenic in humans.

Some studies with mice have suggested that repeated contact with fuel oils may cause liver or skin cancer. However, other mouse studies have found this not to be the case. No studies are available in other animals or in people on the carcinogenic effects of fuel oils.

Is there a medical test to show whether I've been exposed to fuel oils?

There is no medical test that shows if you have been exposed to fuel oils. Tests are available to determine if some of

the chemicals commonly found in fuel oils are in your blood. However, the presence of these chemicals in blood may not necessarily mean that you have been exposed to fuel oils.

Has the federal government made recommendations to protect human health?

The Occupational Safety and Health Administration (OSHA) and the Air Force Office of Safety and Health (AFOSH) have set a permissible exposure level (PEL) of 400 parts of petroleum distillates per million parts of air (400 ppm) for an 8-hour workday, 40-hour workweek.

The National Institute for Occupational Safety and Health (NIOSH) recommends that average workplace air levels not exceed 350 milligrams of petroleum distillates per cubic meter of air (350 mg/m³) for a 40-hour workweek.

The Department of Transportation (DOT) lists fuel oils as hazardous materials and, therefore, regulates their transportation.

Glossary

Carcinogenic: Able to cause cancer.

CAS: Chemical Abstracts Service.

Evaporate: To change into a vapor or a gas.

Hydrocarbon: Any compound made up of hydrogen and carbon.

Milligram (mg): One thousandth of a gram.

ppm: Parts per million.

Sediment: Mud and debris that have settled to the bottom of a body of water.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 1995. Toxicological profile for fuel oils. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop E-29, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 404-498-0093. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html> ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



This fact sheet answers the most frequently asked health questions (FAQs) about lead. For more information, call the ATSDR Information Center at 1-800-232-4636. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Exposure to lead can happen from breathing workplace air or dust, eating contaminated foods, or drinking contaminated water. Children can be exposed from eating lead-based paint chips or playing in contaminated soil. Lead can damage the nervous system, kidneys, and reproductive system. Lead has been found in at least 1,272 of the 1,684 National Priority List sites identified by the Environmental Protection Agency (EPA).

What is lead?

Lead is a naturally occurring bluish-gray metal found in small amounts in the earth's crust. Lead can be found in all parts of our environment. Much of it comes from human activities including burning fossil fuels, mining, and manufacturing.

Lead has many different uses. It is used in the production of batteries, ammunition, metal products (solder and pipes), and devices to shield X-rays. Because of health concerns, lead from paints and ceramic products, caulking, and pipe solder has been dramatically reduced in recent years. The use of lead as an additive to gasoline was banned in 1996 in the United States.

What happens to lead when it enters the environment?

- Lead itself does not break down, but lead compounds are changed by sunlight, air, and water.
- When lead is released to the air, it may travel long distances before settling to the ground.
- Once lead falls onto soil, it usually sticks to soil particles.
- Movement of lead from soil into groundwater will depend on the type of lead compound and the characteristics of the soil.

How might I be exposed to lead?

- Eating food or drinking water that contains lead. Water pipes in some older homes may contain lead solder. Lead can leach out into the water.

- Spending time in areas where lead-based paints have been used and are deteriorating. Deteriorating lead paint can contribute to lead dust.

- Working in a job where lead is used or engaging in certain hobbies in which lead is used, such as making stained glass.

- Using health-care products or folk remedies that contain lead.

How can lead affect my health?

The effects of lead are the same whether it enters the body through breathing or swallowing. Lead can affect almost every organ and system in your body. The main target for lead toxicity is the nervous system, both in adults and children. Long-term exposure of adults can result in decreased performance in some tests that measure functions of the nervous system. It may also cause weakness in fingers, wrists, or ankles. Lead exposure also causes small increases in blood pressure, particularly in middle-aged and older people and can cause anemia. Exposure to high lead levels can severely damage the brain and kidneys in adults or children and ultimately cause death. In pregnant women, high levels of exposure to lead may cause miscarriage. High-level exposure in men can damage the organs responsible for sperm production.

How likely is lead to cause cancer?

We have no conclusive proof that lead causes cancer in humans. Kidney tumors have developed in rats and mice that had been given large doses of some kind of lead compounds. The Department of Health and Human Services

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(DHHS) has determined that lead and lead compounds are reasonably anticipated to be human carcinogens and the EPA has determined that lead is a probable human carcinogen. The International Agency for Research on Cancer (IARC) has determined that inorganic lead is probably carcinogenic to humans and that there is insufficient information to determine whether organic lead compounds will cause cancer in humans.

How can lead affect children?

Small children can be exposed by eating lead-based paint chips, chewing on objects painted with lead-based paint, or swallowing house dust or soil that contains lead.

Children are more vulnerable to lead poisoning than adults. A child who swallows large amounts of lead may develop blood anemia, severe stomachache, muscle weakness, and brain damage. If a child swallows smaller amounts of lead, much less severe effects on blood and brain function may occur. Even at much lower levels of exposure, lead can affect a child's mental and physical growth.

Exposure to lead is more dangerous for young and unborn children. Unborn children can be exposed to lead through their mothers. Harmful effects include premature births, smaller babies, decreased mental ability in the infant, learning difficulties, and reduced growth in young children. These effects are more common if the mother or baby was exposed to high levels of lead. Some of these effects may persist beyond childhood.

How can families reduce the risks of exposure to lead?

- Avoid exposure to sources of lead.
- Do not allow children to chew on mouth surfaces that may have been painted with lead-based paint.
- If you have a water lead problem, run or flush water that has been standing overnight before drinking or cooking with it.
- Some types of paints and pigments that are used as make-up or hair coloring contain lead. Keep these kinds of products away from children
- If your home contains lead-based paint or you live in an area contaminated with lead, wash children's hands and faces

often to remove lead dusts and soil, and regularly clean the house of dust and tracked in soil.

Is there a medical test to determine whether I've been exposed to lead?

A blood test is available to measure the amount of lead in your blood and to estimate the amount of your recent exposure to lead. Blood tests are commonly used to screen children for lead poisoning. Lead in teeth or bones can be measured by X-ray techniques, but these methods are not widely available. Exposure to lead also can be evaluated by measuring erythrocyte protoporphyrin (EP) in blood samples. EP is a part of red blood cells known to increase when the amount of lead in the blood is high. However, the EP level is not sensitive enough to identify children with elevated blood lead levels below about 25 micrograms per deciliter ($\mu\text{g}/\text{dL}$). These tests usually require special analytical equipment that is not available in a doctor's office. However, your doctor can draw blood samples and send them to appropriate laboratories for analysis.

Has the federal government made recommendations to protect human health?

The Centers for Disease Control and Prevention (CDC) recommends that states test children at ages 1 and 2 years. Children should be tested at ages 3–6 years if they have never been tested for lead, if they receive services from public assistance programs for the poor such as Medicaid or the Supplemental Food Program for Women, Infants, and Children, if they live in a building or frequently visit a house built before 1950; if they visit a home (house or apartment) built before 1978 that has been recently remodeled; and/or if they have a brother, sister, or playmate who has had lead poisoning. CDC considers a blood lead level of 10 $\mu\text{g}/\text{dL}$ to be a level of concern for children.

EPA limits lead in drinking water to 15 μg per liter.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 2007. Toxicological Profile for lead (Update). Atlanta, GA: U.S. Department of Public Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology and Environmental Medicine, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-800-232-4636, FAX: 770-488-4178. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html>. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



This fact sheet answers the most frequently asked health questions (FAQs) about mercury. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Exposure to mercury occurs from breathing contaminated air, ingesting contaminated water and food, and having dental and medical treatments. Mercury, at high levels, may damage the brain, kidneys, and developing fetus. This chemical has been found in at least 714 of 1,467 National Priorities List sites identified by the Environmental Protection Agency.

What is mercury?

(Pronounced mŭr/kyə-rē)

Mercury is a naturally occurring metal which has several forms. The metallic mercury is a shiny, silver-white, odorless liquid. If heated, it is a colorless, odorless gas.

Mercury combines with other elements, such as chlorine, sulfur, or oxygen, to form inorganic mercury compounds or "salts," which are usually white powders or crystals. Mercury also combines with carbon to make organic mercury compounds. The most common one, methylmercury, is produced mainly by microscopic organisms in the water and soil. More mercury in the environment can increase the amounts of methylmercury that these small organisms make.

Metallic mercury is used to produce chlorine gas and caustic soda, and is also used in thermometers, dental fillings, and batteries. Mercury salts are sometimes used in skin lightening creams and as antiseptic creams and ointments.

What happens to mercury when it enters the environment?

- Inorganic mercury (metallic mercury and inorganic mercury compounds) enters the air from mining ore deposits, burning coal and waste, and from manufacturing plants.
- It enters the water or soil from natural deposits, disposal of wastes, and volcanic activity.

- Methylmercury may be formed in water and soil by small organisms called bacteria.
- Methylmercury builds up in the tissues of fish. Larger and older fish tend to have the highest levels of mercury.

How might I be exposed to mercury?

- Eating fish or shellfish contaminated with methylmercury.
- Breathing vapors in air from spills, incinerators, and industries that burn mercury-containing fuels.
- Release of mercury from dental work and medical treatments.
- Breathing contaminated workplace air or skin contact during use in the workplace (dental, health services, chemical, and other industries that use mercury).
- Practicing rituals that include mercury.

How can mercury affect my health?

The nervous system is very sensitive to all forms of mercury. Methylmercury and metallic mercury vapors are more harmful than other forms, because more mercury in these forms reaches the brain. Exposure to high levels of metallic, inorganic, or organic mercury can permanently damage the brain, kidneys, and developing fetus. Effects on brain functioning may result in irritability, shyness, tremors, changes in vision or hearing, and memory problems.

Short-term exposure to high levels of metallic mercury vapors may cause effects including lung damage, nausea,

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vomiting, diarrhea, increases in blood pressure or heart rate, skin rashes, and eye irritation.

How likely is mercury to cause cancer?

There are inadequate human cancer data available for all forms of mercury. Mercuric chloride has caused increases in several types of tumors in rats and mice, and methylmercury has caused kidney tumors in male mice. The EPA has determined that mercuric chloride and methylmercury are possible human carcinogens.

How can mercury affect children?

Very young children are more sensitive to mercury than adults. Mercury in the mother's body passes to the fetus and may accumulate there. It can also pass to a nursing infant through breast milk. However, the benefits of breast feeding may be greater than the possible adverse effects of mercury in breast milk.

Mercury's harmful effects that may be passed from the mother to the fetus include brain damage, mental retardation, incoordination, blindness, seizures, and inability to speak. Children poisoned by mercury may develop problems of their nervous and digestive systems, and kidney damage.

How can families reduce the risk of exposure to mercury?

Carefully handle and dispose of products that contain mercury, such as thermometers or fluorescent light bulbs. Do not vacuum up spilled mercury, because it will vaporize and increase exposure. If a large amount of mercury has been spilled, contact your health department. Teach children not to play with shiny, silver liquids.

Properly dispose of older medicines that contain mercury. Keep all mercury-containing medicines away from children.

Pregnant women and children should keep away from

rooms where liquid mercury has been used.

Learn about wildlife and fish advisories in your area from your public health or natural resources department.

Is there a medical test to show whether I've been exposed to mercury?

Tests are available to measure mercury levels in the body. Blood or urine samples are used to test for exposure to metallic mercury and to inorganic forms of mercury. Mercury in whole blood or in scalp hair is measured to determine exposure to methylmercury. Your doctor can take samples and send them to a testing laboratory.

Has the federal government made recommendations to protect human health?

The EPA has set a limit of 2 parts of mercury per billion parts of drinking water (2 ppb).

The Food and Drug Administration (FDA) has set a maximum permissible level of 1 part of methylmercury in a million parts of seafood (1 ppm).

The Occupational Safety and Health Administration (OSHA) has set limits of 0.1 milligram of organic mercury per cubic meter of workplace air (0.1 mg/m³) and 0.05 mg/m³ of metallic mercury vapor for 8-hour shifts and 40-hour work weeks.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 1999. Toxicological profile for mercury. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html> ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



This fact sheet answers the most frequently asked health questions (FAQs) about polycyclic aromatic hydrocarbons (PAHs). For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. This information is important because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

SUMMARY: Exposure to polycyclic aromatic hydrocarbons usually occurs by breathing air contaminated by wild fires or coal tar, or by eating foods that have been grilled. PAHs have been found in at least 600 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What are polycyclic aromatic hydrocarbons?

(Pronounced pŏl'ī-sī'klīk ār'ə-măt'īk hī'drə-kar'bənz)

Polycyclic aromatic hydrocarbons (PAHs) are a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like tobacco or charbroiled meat. PAHs are usually found as a mixture containing two or more of these compounds, such as soot.

Some PAHs are manufactured. These pure PAHs usually exist as colorless, white, or pale yellow-green solids. PAHs are found in coal tar, crude oil, creosote, and roofing tar, but a few are used in medicines or to make dyes, plastics, and pesticides.

What happens to PAHs when they enter the environment?

- PAHs enter the air mostly as releases from volcanoes, forest fires, burning coal, and automobile exhaust.
- PAHs can occur in air attached to dust particles.
- Some PAH particles can readily evaporate into the air from soil or surface waters.
- PAHs can break down by reacting with sunlight and other chemicals in the air, over a period of days to weeks.

- PAHs enter water through discharges from industrial and wastewater treatment plants.
- Most PAHs do not dissolve easily in water. They stick to solid particles and settle to the bottoms of lakes or rivers.
- Microorganisms can break down PAHs in soil or water after a period of weeks to months.
- In soils, PAHs are most likely to stick tightly to particles; certain PAHs move through soil to contaminate underground water.
- PAH contents of plants and animals may be much higher than PAH contents of soil or water in which they live.

How might I be exposed to PAHs?

- Breathing air containing PAHs in the workplace of coking, coal-tar, and asphalt production plants; smoke-houses; and municipal trash incineration facilities.
- Breathing air containing PAHs from cigarette smoke, wood smoke, vehicle exhausts, asphalt roads, or agricultural burn smoke.
- Coming in contact with air, water, or soil near hazardous waste sites.
- Eating grilled or charred meats; contaminated cereals, flour, bread, vegetables, fruits, meats; and processed or pickled foods.
- Drinking contaminated water or cow's milk.

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- ❑ Nursing infants of mothers living near hazardous waste sites may be exposed to PAHs through their mother's milk.

How can PAHs affect my health?

Mice that were fed high levels of one PAH during pregnancy had difficulty reproducing and so did their offspring. These offspring also had higher rates of birth defects and lower body weights. It is not known whether these effects occur in people.

Animal studies have also shown that PAHs can cause harmful effects on the skin, body fluids, and ability to fight disease after both short- and long-term exposure. But these effects have not been seen in people.

How likely are PAHs to cause cancer?

The Department of Health and Human Services (DHHS) has determined that some PAHs may reasonably be expected to be carcinogens.

Some people who have breathed or touched mixtures of PAHs and other chemicals for long periods of time have developed cancer. Some PAHs have caused cancer in laboratory animals when they breathed air containing them (lung cancer), ingested them in food (stomach cancer), or had them applied to their skin (skin cancer).

Is there a medical test to show whether I've been exposed to PAHs?

In the body, PAHs are changed into chemicals that can attach to substances within the body. There are special tests that can detect PAHs attached to these substances in body tissues or blood. However, these tests cannot tell whether any

health effects will occur or find out the extent or source of your exposure to the PAHs. The tests aren't usually available in your doctor's office because special equipment is needed to conduct them.

Has the federal government made recommendations to protect human health?

The Occupational Safety and Health Administration (OSHA) has set a limit of 0.2 milligrams of PAHs per cubic meter of air (0.2 mg/m^3). The OSHA Permissible Exposure Limit (PEL) for mineral oil mist that contains PAHs is 5 mg/m^3 averaged over an 8-hour exposure period.

The National Institute for Occupational Safety and Health (NIOSH) recommends that the average workplace air levels for coal tar products not exceed 0.1 mg/m^3 for a 10-hour workday, within a 40-hour workweek. There are other limits for workplace exposure for things that contain PAHs, such as coal, coal tar, and mineral oil.

Glossary

Carcinogen: A substance that can cause cancer.

Ingest: Take food or drink into your body.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 1995. Toxicological profile for polycyclic aromatic hydrocarbons. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop E-29, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 404-498-0093. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html> ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



This fact sheet answers the most frequently asked health questions (FAQs) about trichloroethylene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. This information is important because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Trichloroethylene is a colorless liquid which is used as a solvent for cleaning metal parts. Drinking or breathing high levels of trichloroethylene may cause nervous system effects, liver and lung damage, abnormal heartbeat, coma, and possibly death. Trichloroethylene has been found in at least 852 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What is trichloroethylene?

Trichloroethylene (TCE) is a nonflammable, colorless liquid with a somewhat sweet odor and a sweet, burning taste. It is used mainly as a solvent to remove grease from metal parts, but it is also an ingredient in adhesives, paint removers, typewriter correction fluids, and spot removers.

Trichloroethylene is not thought to occur naturally in the environment. However, it has been found in underground water sources and many surface waters as a result of the manufacture, use, and disposal of the chemical.

What happens to trichloroethylene when it enters the environment?

- ❑ Trichloroethylene dissolves a little in water, but it can remain in ground water for a long time.
- ❑ Trichloroethylene quickly evaporates from surface water, so it is commonly found as a vapor in the air.
- ❑ Trichloroethylene evaporates less easily from the soil than from surface water. It may stick to particles and remain for a long time.
- ❑ Trichloroethylene may stick to particles in water, which will cause it to eventually settle to the bottom sediment.
- ❑ Trichloroethylene does not build up significantly in

plants and animals.

How might I be exposed to trichloroethylene?

- ❑ Breathing air in and around the home which has been contaminated with trichloroethylene vapors from shower water or household products such as spot removers and typewriter correction fluid.
- ❑ Drinking, swimming, or showering in water that has been contaminated with trichloroethylene.
- ❑ Contact with soil contaminated with trichloroethylene, such as near a hazardous waste site.
- ❑ Contact with the skin or breathing contaminated air while manufacturing trichloroethylene or using it at work to wash paint or grease from skin or equipment.

How can trichloroethylene affect my health?

Breathing small amounts may cause headaches, lung irritation, dizziness, poor coordination, and difficulty concentrating.

Breathing large amounts of trichloroethylene may cause impaired heart function, unconsciousness, and death. Breathing it for long periods may cause nerve, kidney, and liver damage.

ToxFAQs™ Internet address is <http://www.atsdr.cdc.gov/toxfaq.html>

Drinking large amounts of trichloroethylene may cause nausea, liver damage, unconsciousness, impaired heart function, or death.

Drinking small amounts of trichloroethylene for long periods may cause liver and kidney damage, impaired immune system function, and impaired fetal development in pregnant women, although the extent of some of these effects is not yet clear.

Skin contact with trichloroethylene for short periods may cause skin rashes.

How likely is trichloroethylene to cause cancer?

Some studies with mice and rats have suggested that high levels of trichloroethylene may cause liver, kidney, or lung cancer. Some studies of people exposed over long periods to high levels of trichloroethylene in drinking water or in workplace air have found evidence of increased cancer. Although, there are some concerns about the studies of people who were exposed to trichloroethylene, some of the effects found in people were similar to effects in animals.

In its 9th Report on Carcinogens, the National Toxicology Program (NTP) determined that trichloroethylene is “reasonably anticipated to be a human carcinogen.” The International Agency for Research on Cancer (IARC) has determined that trichloroethylene is “probably carcinogenic to humans.”

Is there a medical test to show whether I've been exposed to trichloroethylene?

If you have recently been exposed to trichloroethylene, it can be detected in your breath, blood, or urine. The breath test, if it is performed soon after exposure, can tell if you have been exposed to even a small amount of trichloroethylene.

Exposure to larger amounts is assessed by blood

and urine tests, which can detect trichloroethylene and many of its breakdown products for up to a week after exposure. However, exposure to other similar chemicals can produce the same breakdown products, so their detection is not absolute proof of exposure to trichloroethylene. This test isn't available at most doctors' offices, but can be done at special laboratories that have the right equipment.

Has the federal government made recommendations to protect human health?

The EPA has set a maximum contaminant level for trichloroethylene in drinking water at 0.005 milligrams per liter (0.005 mg/L) or 5 parts of TCE per billion parts water.

The EPA has also developed regulations for the handling and disposal of trichloroethylene.

The Occupational Safety and Health Administration (OSHA) has set an exposure limit of 100 parts of trichloroethylene per million parts of air (100 ppm) for an 8-hour workday, 40-hour workweek.

Glossary

Carcinogenicity: The ability of a substance to cause cancer.

CAS: Chemical Abstracts Service.

Evaporate: To change into a vapor or gas.

Milligram (mg): One thousandth of a gram.

Nonflammable: Will not burn.

ppm: Parts per million.

Sediment: Mud and debris that have settled to the bottom of a body of water.

Solvent: A chemical that dissolves other substances.

References

This ToxFAQs information is taken from the 1997 Toxicological Profile for Trichloroethylene (update) produced by the Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services, Public Health Service in Atlanta, GA.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs™ Internet address is <http://www.atsdr.cdc.gov/toxfaq.html>. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

This fact sheet answers the most frequently asked health questions (FAQs) about toluene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Exposure to toluene occurs from breathing contaminated workplace air, in automobile exhaust, some consumer products paints, paint thinners, fingernail polish, lacquers, and adhesives. Toluene affects the nervous system. Toluene has been found at 959 of the 1,591 National Priority List sites identified by the Environmental Protection Agency

What is toluene?

Toluene is a clear, colorless liquid with a distinctive smell. Toluene occurs naturally in crude oil and in the tolu tree. It is also produced in the process of making gasoline and other fuels from crude oil and making coke from coal.

Toluene is used in making paints, paint thinners, fingernail polish, lacquers, adhesives, and rubber and in some printing and leather tanning processes.

What happens to toluene when it enters the environment?

Toluene enters the environment when you use materials that contain it. It can also enter surface water and groundwater from spills of solvents and petroleum products as well as from leaking underground storage tanks at gasoline stations and other facilities.

When toluene-containing products are placed in landfills or waste disposal sites, the toluene can enter the soil or water near the waste site.

Toluene does not usually stay in the environment long.

Toluene does not concentrate or buildup to high levels in animals.

How might I be exposed to toluene?

Breathing contaminated workplace air or automobile exhaust.

Working with gasoline, kerosene, heating oil, paints, and lacquers.

Drinking contaminated well-water.

Living near uncontrolled hazardous waste sites containing toluene products.

How can toluene affect my health?

Toluene may affect the nervous system. Low to moderate levels can cause tiredness, confusion, weakness, drunken-type actions, memory loss, nausea, loss of appetite, and

ToxFAQs™ Internet address is <http://www.atsdr.cdc.gov/toxfaq.html>

hearing and color vision loss. These symptoms usually disappear when exposure is stopped.

Inhaling High levels of toluene in a short time can make you feel light-headed, dizzy, or sleepy. It can also cause unconsciousness, and even death.

High levels of toluene may affect your kidneys.

How likely is toluene to cause cancer?

Studies in humans and animals generally indicate that toluene does not cause cancer.

The EPA has determined that the carcinogenicity of toluene can not be classified.

How can toluene affect children?

It is likely that health effects seen in children exposed to toluene will be similar to the effects seen in adults. Some studies in animals suggest that babies may be more sensitive than adults.

Breathing very high levels of toluene during pregnancy can result in children with birth defects and retard mental abilities, and growth. We do not know if toluene harms the unborn child if the mother is exposed to low levels of toluene during pregnancy.

How can families reduce the risk of exposure to toluene?

- Use toluene-containing products in well-ventilated areas.

- When not in use, toluene-containing products should be tightly covered to prevent evaporation into the air.

Is there a medical test to show whether I've been exposed to toluene?

There are tests to measure the level of toluene or its breakdown products in exhaled air, urine, and blood. To determine if you have been exposed to toluene, your urine or blood must be checked within 12 hours of exposure. Several other chemicals are also changed into the same breakdown products as toluene, so some of these tests are not specific for toluene.

Has the federal government made recommendations to protect human health?

EPA has set a limit of 1 milligram per liter of drinking water (1 mg/L).

Discharges, releases, or spills of more than 1,000 pounds of toluene must be reported to the National Response Center.

The Occupational Safety and Health Administration has set a limit of 200 parts toluene per million of workplace air (200 ppm).

References

Agency for Toxic Substances and Disease Registry (ATSDR). 2000. Toxicological Profile for Toluene. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs™ Internet address is <http://www.atsdr.cdc.gov/toxfaq.html>. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



This fact sheet answers the most frequently asked health questions (FAQs) about xylene. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

SUMMARY: Exposure to xylene occurs in the workplace and when you use paint, gasoline, paint thinners and other products that contain it. People who breathe high levels may have dizziness, confusion, and a change in their sense of balance. This substance has been found in at least 658 of the 1,430 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What is xylene?

(Pronounced zī'lēn)

Xylene is a colorless, sweet-smelling liquid that catches on fire easily. It occurs naturally in petroleum and coal tar and is formed during forest fires. You can smell xylene in air at 0.08–3.7 parts of xylene per million parts of air (ppm) and begin to taste it in water at 0.53–1.8 ppm.

Chemical industries produce xylene from petroleum. It's one of the top 30 chemicals produced in the United States in terms of volume.

Xylene is used as a solvent and in the printing, rubber, and leather industries. It is also used as a cleaning agent, a thinner for paint, and in paints and varnishes. It is found in small amounts in airplane fuel and gasoline.

What happens to xylene when it enters the environment?

- Xylene has been found in waste sites and landfills when discarded as used solvent, or in varnish, paint, or paint thinners.
- It evaporates quickly from the soil and surface water into the air.

- In the air, it is broken down by sunlight into other less harmful chemicals.
- It is broken down by microorganisms in soil and water.
- Only a small amount of it builds up in fish, shellfish, plants, and animals living in xylene-contaminated water.

How might I be exposed to xylene?

- Breathing xylene in workplace air or in automobile exhaust.
- Breathing contaminated air.
- Touching gasoline, paint, paint removers, varnish, shellac, and rust preventatives that contain it.
- Breathing cigarette smoke that has small amounts of xylene in it.
- Drinking contaminated water or breathing air near waste sites and landfills that contain xylene.
- The amount of xylene in food is likely to be low.

How can xylene affect my health?

Xylene affects the brain. High levels from exposure for short periods (14 days or less) or long periods (more than 1 year) can cause headaches, lack of muscle coordination, dizziness, confusion, and changes in one's sense of balance. Exposure of

ToxFAQs Internet home page via WWW is <http://www.atsdr.cdc.gov/toxfaq.html>

people to high levels of xylene for short periods can also cause irritation of the skin, eyes, nose, and throat; difficulty in breathing; problems with the lungs; delayed reaction time; memory difficulties; stomach discomfort; and possibly changes in the liver and kidneys. It can cause unconsciousness and even death at very high levels.

Studies of unborn animals indicate that high concentrations of xylene may cause increased numbers of deaths, and delayed growth and development. In many instances, these same concentrations also cause damage to the mothers. We do not know if xylene harms the unborn child if the mother is exposed to low levels of xylene during pregnancy.

How likely is xylene to cause cancer?

The International Agency for Research on Cancer (IARC) has determined that xylene is not classifiable as to its carcinogenicity in humans.

Human and animal studies have not shown xylene to be carcinogenic, but these studies are not conclusive and do not provide enough information to conclude that xylene does not cause cancer.

Is there a medical test to show whether I've been exposed to xylene?

Laboratory tests can detect xylene or its breakdown products in exhaled air, blood, or urine. There is a high degree of agreement between the levels of exposure to xylene and the levels of xylene breakdown products in the urine. However, a urine sample must be provided very soon after exposure ends because xylene quickly leaves the body. These tests are not routinely available at your doctor's office.

Has the federal government made recommendations to protect human health?

The EPA has set a limit of 10 ppm of xylene in drinking water.

The EPA requires that spills or accidental releases of xylenes into the environment of 1,000 pounds or more must be reported.

The Occupational Safety and Health Administration (OSHA) has set a maximum level of 100 ppm xylene in workplace air for an 8-hour workday, 40-hour workweek.

The National Institute for Occupational Safety and Health (NIOSH) and the American Conference of Governmental Industrial Hygienists (ACGIH) also recommend exposure limits of 100 ppm in workplace air.

NIOSH has recommended that 900 ppm of xylene be considered immediately dangerous to life or health. This is the exposure level of a chemical that is likely to cause permanent health problems or death.

Glossary

Evaporate: To change from a liquid into a vapor or a gas.

Carcinogenic: Having the ability to cause cancer.

CAS: Chemical Abstracts Service.

ppm: Parts per million.

Solvent: A liquid that can dissolve other substances.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 1995. Toxicological profile for xylenes (update). Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop E-29, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 404-498-0093. ToxFAQs Internet address via WWW is <http://www.atsdr.cdc.gov/toxfaq.html> ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.



APPENDIX B
REPORT FORMS

WEEKLY SAFETY REPORT FORM

Week Ending: _____ Project Name/Number: _____

Report Date: _____ Project Manager Name: _____

Summary of any violations of procedures occurring that week:

Summary of any job related injuries, illnesses, or near misses that week:

Summary of air monitoring data that week (include and sample analyses, action levels exceeded, and actions taken):

Comments:

Name: _____ Company: _____

Signature: _____ Title: _____

INJURED - ILL:

Name: _____ SSN: _____

Address: _____ Age: _____

Length of Service: _____ Time on Present Job: _____

Time/Classification: _____

SEVERITY OF INJURY OR ILLNESS:

___ Disabling ___ Non-disabling ___ Fatality

___ Medical Treatment ___ First Aid Only

ESTIMATED NUMBER OF DAYS AWAY FROM JOB: _____

NATURE OF INJURY OR ILLNESS: _____

CLASSIFICATION OF INJURY:

- | | | |
|--------------------|-----------------------|----------------------------|
| ___ Abrasions | _____ Dislocations | _____ Punctures |
| ___ Bites | _____ Faint/Dizziness | _____ Radiation Burns |
| ___ Blisters | _____ Fractures | _____ Respiratory Allergy |
| ___ Bruises | _____ Frostbite | _____ Sprains |
| ___ Chemical Burns | _____ Heat Burns | _____ Toxic Resp. Exposure |
| ___ Cold Exposure | _____ Heat Exhaustion | _____ Toxic Ingestion |
| ___ Concussion | _____ Heat Stroke | _____ Dermal Allergy |
| ___ Lacerations | | |

Part of Body Affected: _____

Degree of Disability: _____

Date Medical Care was Received: _____

Where Medical Care was Received: _____

Address (if off-site): _____

(If two or more injuries, record on separate sheets)

PROPERTY DAMAGE:

Description of Damage: _____

Cost of Damage: \$ _____

ACCIDENT/INCIDENT LOCATION: _____

ACCIDENT/INCIDENT ANALYSIS: Causative agent most directly related to accident/incident
(Object, substance, material, machinery, equipment, conditions)

Was weather a factor?: _____

Unsafe mechanical/physical/environmental condition at time of accident/incident (Be specific):

Personal factors (Attitude, knowledge or skill, reaction time, fatigue):

ON-SITE ACCIDENTS/INCIDENTS:

Level of personal protection equipment required in Site Safety Plan:

Modifications:

Was injured using required equipment?:

If not, how did actual equipment use differ from plan?:

ACTION TAKEN TO PREVENT RECURRENCE: (Be specific. What has or will be done? When will it be done? Who is the responsible party to insure that the correction is made?)

ACCIDENT/INCIDENT REPORT REVIEWED BY:

SSO Name Printed

SSO Signature

OTHERS PARTICIPATING IN INVESTIGATION:

Signature

Title

Signature

Title

Signature

Title

ACCIDENT/INCIDENT FOLLOW-UP: Date: _____

Outcome of accident/incident: _____

Physician's recommendations: _____

Date injured returned to work: _____
Follow-up performed by: _____

Signature

Title

ATTACH ANY ADDITIONAL INFORMATION TO THIS FORM

APPENDIX C
EMERGENCY HAND SIGNALS

EMERGENCY SIGNALS

In most cases, field personnel will carry portable radios for communication. If this is the case, a transmission that indicates an emergency will take priority over all other transmissions. All other site radios will yield the frequency to the emergency transmissions.

Where radio communications is not available, the following air-horn and/or hand signals will be used:

EMERGENCY HAND SIGNALS

OUT OF AIR, CAN'T BREATHE!



Hand gripping throat

**LEAVE AREA IMMEDIATELY,
NO DEBATE!**

(No Picture) Grip partner's wrist or place both hands around waist

NEED ASSISTANCE!



Hands on top of head

OKAY! – I'M ALL RIGHT!

- I UNDERSTAND!



Thumbs up

NO! - NEGATIVE!



Thumbs down

**APPENDIX E-5:
AMNH Asbestos Management Plan**

THE AMERICAN MUSEUM OF NATURAL HISTORY

ASBESTOS MANAGEMENT

Purpose

The purpose of this plan is to facilitate the proper management of asbestos containing building materials present within the Museum, to minimize employee exposure to asbestos containing material and to ensure that the Museum is in compliance with all applicable regulations pertaining to asbestos.

1. SCOPE

- a. This standard operating procedure provides a structured approach to managing asbestos-containing building materials during renovations, improvements, and general maintenance that will be conducted at the Museum.

2. DEFINITIONS

- a. Asbestos containing materials - Refers to products that contain greater than one percent by weight and volume asbestos. These may include, but are not limited to, pipe insulation, floor and ceiling tiles, spray applied fireproofing, etc.
- b. Demolition - The wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.
- c. Renovation – The altering a facility or one or more facility components in any way, including the stripping or removal of regulated asbestos-containing material (RACM) from a facility component.
- d. Construction - Work for erection, alteration, and/or repair, including painting and decorating.

3. GENERAL

- a. Management of Asbestos Program:
 - i. No employee of the Museum should impact or conduct removal of asbestos. An asbestos licensed contractor must conduct all asbestos abatements or encapsulations.
 - ii. The handling of asbestos shall be in accordance with 29 CFR 1910.1001 and 1926.1101 (OSHA), 12 NYCRR Part 56 (New York State) and 15 NYCRR Chapter 1 (New York City).
 - iii. Only New York State/New York City licensed personnel may handle ACM or suspect ACM.
 - iv. The EHS (Safety) Director is responsible for managing the Asbestos Management Program at the Museum. The EHS Director should be notified in the following situations:
 1. Prior to planned renovations where asbestos removal or encapsulation is necessary.
 2. Prior to “Large”, “Small” or “Minor” Projects conducted by an asbestos contractor.
 3. In the event of an emergency that may involve ACM (water pipe break, fire, etc.)

4. If there are any questions as to the presence of ACM
5. If there are any questions pertaining to asbestos

4. TRAINING

- a. Asbestos awareness training will be conducted with the applicable departments.

5. NOTIFICATION

- a. Notifications for asbestos containing material will occur in the form of postings which outline all known asbestos locations within the Museum. This listing will be posted in all Facilities departments as well as the Lamping department.
- b. Postings for employees and contractors will be on a bulletin board near the employee cafeteria located in Section 3, Lower Level.
- c. A posting will also occur in or near the actual abatement in accordance with regulations.
- d. Notifications of planned asbestos removal as early as possible but no later than 10 days prior to the project and include the following information:
 - i. Contractor, project location, size, amount, type of ACM, abatement procedure, dates of expected occurrence, and Call Center "311" for government information and services.
- e. Notifications of an emergency asbestos removal will occur as soon as practicable after identification of the project

6. HANDLING

- a. The handling of asbestos shall be in accordance with 29 CFR 1925.1101 (OSHA), 12 NYCRR Part 56 (New York State) and 15 NYCRR Chapter 1 (New York City). Please note where the city and state have varying regulations, the Museum contractors will be advised to follow the more stringent of the two.
- b. Asbestos projects managed by the Facilities Department will:
 - i. Arrange for abatement activities with a licensed contractor.
 - ii. Review the planned work with the EHS Director.
 - iii. Arrange for a licensed "Project Monitor" if required
 1. The "Project Monitor" will be a third party consulting firm licensed to conduct air monitoring and visual inspections.
 2. The "Project Monitor" will air sample for all "Large", "Small" and "Minor" Projects in accordance with the above regulations.

7. MONITORING

- a. Air sampling will occur during "Large", "Small" and "Minor" projects in accordance with city and state regulations by a third party consultant who holds a "Project Monitor" License.
- b. After clearance air samples are received from the third party consultant, staff can re-enter the work area.

8. WASTE

- a. Disposal of asbestos waste shall be properly disposed of in accordance with NYC, NYS and Federal regulations and overseen by the EHS Director.

9. EMERGENCY RESPONSE PROCEDURE

a. Contact Information

- i. For “Large”, “Small” and “Minor” Projects, questions about the project should first be posed to the on-site Project Monitor. If there are any additional questions the Senior EHS Director can be notified at the below numbers for any asbestos questions:
 1. 212-769-5226 - Monday-Friday 9:00 AM –5:00 PM
 2. 212-769-5222 – Off Hours – Control Room can reach Senior EHS Director

b. Response Actions

- i. Once the response by the Senior EHS Director is made, the following decisions will be made:
 1. Does the office/area need to be vacated?
 2. Do signs need to be posted?
 3. Does a contractor need to be hired for clean up?
 4. Does a consultant need to be hired to conduct air sampling?
- ii. If an asbestos contractor needs to be hired for clean-up, EHS and Facilities Departments will make every effort to have the contractor on-site as soon as possible. If required, appropriate agencies will be notified.
- iii. Follow-Up
 1. After an emergency situation is deemed to be over, an evaluation will occur on why the incident occurred and to prevent further incidents.

**APPENDIX E-6:
Correspondence**



February 27, 2017

Owen Wells
Director of Environmental Review
New York City Department of Parks and Recreation
The Arsenal, Central Park, 830 Fifth Avenue
New York, New York 10065

Vincent Sapienza, P.E.
Acting Commissioner

**Re: American Museum of Natural History Expansion
Block 1130, p/o Lot 1
CEQR # 16DPR004M
New York, NY**

Angela Licata
Deputy Commissioner of
Sustainability

Dear Mr. Wells:

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
Fax (718) 595-4479
alicata@dep.nyc.gov

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the November 2016 Phase I Environmental Site Assessment (Phase I) and the January 2017 Subsurface Phase II Investigation Sampling Protocol (Phase II Work Plan) and Health and Safety Plan (HASP) prepared by AKRF Inc., on behalf of the American Museum of Natural History (applicant/Museum) for the above referenced project. It is our understanding that the applicant is proposing the development of a new five-story building on the Columbus Avenue side of the Museum campus. The new building, The Gilder Center, will be approximately 180,000 gross square feet (gsf) and will require approximately 38,000 gsf of existing space to be renovated to accommodate the expansion. Alterations would also be made to adjacent portions of the Theodore Roosevelt Park. The Museum is located in Theodore Roosevelt Park, which is City-owned parkland under the jurisdiction of the New York City Department of Parks and Recreation (DPR). The project site, Block 1130 p/o Lot 1, is bounded by Columbus Avenue, Central Park West, West 77th Street and West 81st Street in the Upper West Side neighborhood of Manhattan Community District 7.

The November 2016 Phase I report revealed that historical on-site and surrounding area land uses consists of residential, commercial and parkland uses including a museum, a park, public schools, a shooting range, a storage facility, an auto house, a power house, a boiler house, a coal-fired electric power plant as well as residential buildings. Regulatory databases such as the New York State Department of Environmental Conservation (NYSDEC) SPILLS, Leaking Underground Storage Tanks (LUST), Leaking Storage Tanks (LTANKS), Resource Conservation and Recovery Act Generators, and Petroleum Bulk Storage (PBS) Underground Storage Tanks (USTs) and PBS Aboveground Storage Tanks (ASTs) identified several sites in close proximity to the project site. The SPILLS databases reported 590 spills within a 1/2-mile radius of the project site, the PBS USTs and ASTs databases reported a total of 71 sites within a 1/8-mile radius of the project site. Based on the age of the buildings that currently occupies the project site, as well as the electrical equipment observed onsite, polychlorinated biphenyls containing materials, asbestos containing materials and lead based paint could be present in the structures.

The January 2017 Phase II Work Plan proposes to install ten soil borings (SB-1 through SB-10), up to five temporary groundwater wells (GW-1 through GW-5) and seven soil vapor probes (SV-1 through SV-7) at the project site. Soil borings SB-1 through SB-8 will be advanced to approximately 20 feet (ft) below grade (the anticipated maximum depth of excavation for the Gilder Center) or refusal, whichever is encountered first. Soil borings SB-9 and SB-10 will be advanced to approximately 4 ft below grade (the anticipated maximum depth of excavation for the park improvements). If refusal occurs, an additional boring will be advanced in the vicinity of the initial boring to achieve the intended final boring depth. Soil samples will be collected from each boring based on any field observations (e.g., odor and staining) and/or photoionization detector (PID) readings. If no evidence of contamination (visual, odor or PID readings) is apparent, the samples will be collected as follows:

- For deep borings, SB-1 to SB-8, one soil sample will be collected from a 2-foot interval within a historic fill layer and one sample from the 2-foot interval just above the water table or 2-foot interval at the bottom of the soil boring, whichever is encountered first.
- For shallow borings SB-9 and SB-10, advanced in the park, only one soil sample will be collected from the 2-foot interval within a historic fill layer.

Soil and groundwater samples will be collected and analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) by United States Environmental Protection Agency (EPA) Method 8260, TCL semi-volatile organic compounds via EPA Method 8270, pesticides via EPA Method 8081, polychlorinated biphenyls via EPA Method 8082 and Target Analyte List metals (filtered and unfiltered for groundwater samples). Soil vapor samples will also be collected and analyzed for VOCs via EPA Method TO-15.

Based upon our review of the submitted documentation, we have the following comments and recommendations to DPR:

Work Plan

- DPR should instruct the applicant that a minimum of two soil samples should be collected from each deep soil boring (SB-1 to SB-8). One surface soil sample should be collected from 0-2 feet below grade surface (bgs) and one subsurface soil sample should be collected between 2 feet bgs and the maximum proposed excavation depth (based on visual/olfactory evidence of impacts and/or elevated soil screening readings obtained using accepted field instruments). If no evidence or elevated readings are noted during borehole advancement, the subsurface soil sample should be collected from the two foot interval below the proposed maximum excavation depth(s) and/or the groundwater interface (whichever is encountered first).

HASP

- DPR should instruct the applicant to include the name and phone number of an alternate Site Health and Safety Officer in the HASP.
- DPR should instruct the applicant to include a list of other relevant emergency telephone numbers in the HASP (e.g. Local poison control, NYCDEP Hotline).

DEP finds the January 2017 Phase II Work Plan and HASP for the proposed investigation acceptable, as long as the aforementioned information is incorporated into the Work Plan and HASP. DPR should inform the applicant that upon completion of the investigation activities, the applicant should submit a detailed Phase II report to DEP for review and approval. The report should include, at a minimum, an executive summary, narrative of the field activities, laboratory data and conclusions, comparison of soil, groundwater and soil vapor analytical results (i.e., NYSDEC 6NYCRR Part 375, NYSDEC Water Quality Regulations, and New York State Department of Health's October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York), updated site plans depicting sample locations, boring logs, and remedial recommendations, if warranted.

Future correspondence related to this project should include the following CEQR number **16DPR004M**. If you have any questions, you may contact Ms. Cassandra Scantlebury at (718) 595-6756.

Sincerely,



Wei Yu
Acting Deputy Director, Hazardous Materials

cc: R. Weissbard
T. Estes
M. Wimbish
C. Scantlebury



October 19, 2017

Owen Wells
Director of Environmental Review
New York City Department of Parks and Recreation
The Arsenal, Central Park, 830 Fifth Avenue
New York, New York 10065

**Re: American Museum of Natural History Expansion
Block 1130, p/o Lot 1
CEQR # 16DPR004M**

Vincent Sapienza, P.E.
Commissioner

Angela Licata
*Deputy Commissioner of
Sustainability*

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
Fax (718) 595-4422
alicata@dep.nyc.gov

Dear Mr. Wells:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the September 2017 Revised Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP) prepared by AKRF Inc., on behalf of the American Museum of Natural History (applicant/Museum) for the above referenced project. It is our understanding that the applicant is proposing the development of a new five-story building on the Columbus Avenue side of the Museum campus. The new building, The Gilder Center, will be approximately 203,000 gross square feet (gsf) and will require approximately 42,000 gsf of existing space to be renovated to accommodate the expansion. Alterations would also be made to adjacent portions of the Theodore Roosevelt Park. The Museum is located in Theodore Roosevelt Park, which is City-owned parkland under the jurisdiction of the New York City Department of Parks and Recreation (DPR). The project site is bounded by Columbus Avenue, Central Park West, West 77th Street and West 81st Street in the Upper West Side neighborhood of Manhattan Community District 7.

The September 2017 Revised RAP proposes proper handling, transportation and disposal of excavated materials from the site in accordance with applicable New York State Department of Environmental Conservation (NYSDEC) regulations; dust control procedures; air monitoring procedures; excavated soils that are temporarily stockpiled will be placed on polyethylene sheeting, covered with similar polyethylene sheeting; all found underground and aboveground storage tanks will be properly removed and closed in accordance with applicable NYSDEC regulations; soils displaying petroleum odor and/or staining will be removed and disposed of in accordance with applicable NYSDEC regulations; if dewatering is necessary, a discharge permit will be obtained from the New York City Department of Environmental Protection; capping disturbed areas with concrete, pavement or other impervious layers; the installation of a demarcation layer; the installation of a waterproofing membrane as part of the building's foundation, as well as the installation of two feet of certified clean fill/top soil across portions of the site in any landscaped/grass covered areas of the site not capped with concrete/asphalt.

Based upon our review of the submitted documentation, we have the following comments and recommendations to DPR:

RAP

- DPR should instruct the applicant that the manufacturer's specifications of the proposed waterproofing membrane should be included in the RAP and submitted to DEP for review and approval prior to installation.

DEP finds the September 2017 Revised RAP and CHASP acceptable, as long as the manufacturer's specifications of the proposed waterproofing membrane is submitted to DEP for review and approval. DPR should instruct the applicant that at the completion of the project, a Professional Engineer (P.E.) certified Remedial Closure Report should be submitted to DEP for review and approval for the proposed project. The P.E. certified Remedial Closure Report should indicate that all remedial requirements have been properly implemented (i.e., proper transportation/disposal manifests and certificates from impacted soils removed and properly disposed of in accordance with all NYSDEC regulations; proof of installation of engineering control system, etc.).

Future correspondence related to this project should include the following CEQR number **16DPR004M**. If you have any questions, you may contact Ms. Cassandra Scantlebury at (718) 595-6756.

Sincerely,



Wei Yu
Deputy Director, Hazardous Materials

cc: R. Weissbard
T. Estes
M. Wimbish
C. Scantlebury