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SUPPLEMENTAL INVESTIGATION WORK PLAN
FORMER CARTER SPRAY FINISHING CORP.
BCP SITE C224218
65 ECKFORD STREET
BLOCK 2698 LOT 26
BROOKLYN, NEW YORK

by Haley & Aldrich of New York
New York, New York

for 65-73 Eckford Realty LLC
266 Broadway, Suite 301
Brooklyn, New York

File No. 0202156-002
December 2021

HALEY ALDRICH

HALEY & ALDRICH OF NEW YORK
237 West 35th Street
16th Floor
New York, NY 10123
646-277-5688

15 December 2021
File No. 0202156-002

New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, New York 12233

Attention: Mr. Bob Corcoran

Subject: Supplemental Investigation Work Plan
NYSDEC BCP Site C224218- Former Carter Spray Finishing Corp.
65 Eckford Street
Brooklyn, New York

Dear Mr. Corcoran,

On behalf of 65-73 Eckford Realty LLC, Haley & Aldrich of New York is submitting for the review and approval of the New York State Department of Environmental Conservation (NYSDEC) this draft Supplemental Investigation Work Plan (SIWP) for the Former Carter Spray Finishing Corp. Site (Brownfield Cleanup Program Site C224218), located at 65 Eckford Street in the Greenpoint neighborhood of Brooklyn, NY (Site). This SIWP has been developed based on the NYSDEC's "Technical Guidance for Site Investigation and Remediation" (DER-10 dated May 2010).

Please do not hesitate to contact us if there are any questions regarding this submittal or any other aspects of the project.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

James M. Belle

James M. Bellew
Senior Associate

Mari Cate Conlon

Mari C. Conlon, P.G.
Project Manager

Cc:

Abraham Posner (65-73 Eckford Realty LLC)	Email: abe6991 @gmail.com
Jon Schuyler Brooks (Freeborn & Peters LLP)	Email: jbrooks@freeborn.com
Jane O'Connell (NYSDEC)	Email: jane.oconnell@dec.ny.gov
Scarlett McLaughlin (NYSDOH)	Email: scarlett.mclaughlin@halth.ny.gov

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Certification

This report details proposed supplemental investigation activities to be conducted at the Former Carter Spray Finishing Corp. BCP Site C224218.

I, Mari C. Conlon, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Supplemental Investigation Work Plan was prepared in accordance with all statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan(s) and any DER-approved modifications.

Mari Cate Conlon

15 December 2021

Mari C. Conlon, P.G.

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1. Introduction

On behalf of 65-73 Eckford Realty LLC, Haley & Aldrich of New York (Haley & Aldrich) has prepared this Supplemental Investigation Work Plan (SIWP) for the Former Carter Spray Finishing Corp Site located at 65 Eckford Street (see Figure 1) in the Greenpoint neighborhood of Brooklyn NY (Site). This SIWP was prepared in accordance with the regulations and guidance applicable to the Brownfield Cleanup Program (BCP), including DER-10 which is entitled “Technical Guidance for Site Investigation and Remediation” and dated May 2010.

The Site, identified as Section 3, Block 2698, Lot 26 on the New York City tax map, is approximately 10,200-square feet and is bounded by a four-story residential building to the north, Eckford Street to the east, a residential apartment building currently in construction (enrolled in the New York State Department of Environmental Conservation (NYSDEC) BCP Program as Site Number C224218) to the south, and a four-story residential and one-story industrial building to the west. The Site location is shown on Figure 1 and existing site features on Figure 2.

The lot is within a MX-8 Special Mixed-Use District (MX) and currently zoned M1-2/R6A. The MX was established in 1997 to encourage investment in, and enhance the vitality of, existing neighborhoods with mixed residential and industrial uses in close proximity and create expanded opportunities for new mixed-use communities. New residential and nonresidential uses (commercial, community facility and light industrial) can be developed as-of right and be located side by-side or within the same building. Pairing an M1 district with an R3 through R10 district (e.g., M1-2/R6) ensures a balanced variety of uses.

1.1 PURPOSE

A Remedial Investigation (RI) was performed at the Site in December 2015 by Environmental Business Consultants (EBC) to investigate the contaminants of concern identified based on the Site’s current and former uses and identified in the previous Phase II Investigation, also performed by EBC. The RI partially determined the nature and extent of volatile organic compound (VOC), semi-volatile organic compound (SVOC), polychlorinated biphenyl (PCB), pesticide, and metal contamination at the Site. Results of previous Site characterization activities are summarized in Tables 1 through 13.

The Site characterization did not comprehensively delineate the extent of contamination on the Site; therefore, additional targeted soil, groundwater, and soil vapor sampling is proposed. Additionally, since construction was halted leaving an open excavation, standing water accumulated in the excavation area and dense vegetation grew across the entire Site. It is necessary to analyze soil conditions below the previous excavation to evaluate whether soil conditions have changed. Additionally, sampling locations will help further delineate the groundwater plume and extent of soil vapor contamination. Sampling for emerging contaminants will also be conducted.

The SI will be performed upon completion of the activities included in the approved Corrective Action Work Plan (CAWP) and upon approval of this SIWP. Results of the additional sample analyses will be used to confirm the results of the previous Site characterization activities, potentially identify an on-Site source, and determine a course for remedial action.

2. Background

2.1 CURRENT LAND USE

The Site is currently an undeveloped lot and is enrolled in the NYSDEC Brownfield Cleanup Program as NYSBCP Site Number C224218. Historically, the Site was utilized by several industrial operations including the former Carter Spray Finishing Corporation, which occupied the Site from approximately 1960 to 2008.

2.2 SITE HISTORY

The Site was developed between 1905 and 1916 and improved with several one-story manufacturing buildings occupied by the Meisel Danowitz & Co. woodworking operation. The Site was redeveloped by 1916 with a 1-2 story building and had been utilized by several industrial operations including a machine shop, wood box manufacturing facility, automobile parking garage, and metal finishing facility. Records indicate that former operations utilized underground gasoline storage tanks that were located in the northeast portion of the Site. The Site was occupied by the Carter Spray Finishing Corporation from 1960 to 2008 which used the building for metal finishing and spraying. The building was razed in 2015. The Site was subject to multiple subsurface investigations and construction of a five-story hotel on the Site began in 2018. Construction included excavation, transportation of soil for off-site disposal, and the installation of a secant pile wall along the perimeter of the Site. Construction of the hotel was not completed. Currently, the Site is excavated to approximately 5 to 6 feet below grade Site wide and remains vacant.

2.3 SURROUNDING LAND USE

The Site is located in a mixed-use residential, commercial, and industrial area. The Site is bounded by a four-story residential building to the north, Eckford Street followed by residential apartment buildings to the east, a residential apartment building currently in construction (enrolled in the NYSDEC BCP Program as Site Number C224218) to the south, and a four-story residential and one-story industrial building to the west. The properties adjacent to the Site to the north, west, and south are zoned M1-2/R6B and the properties to the east of the Site across Eckford Street are zoned R6B. The closest public park, McCarren Park, is approximately 300 feet west of the Site. No other sensitive receptors were identified down gradient of the Site.

2.4 SURROUNDING LAND USE HISTORY

The area surrounding the Site was historically used for dwellings and manufacturing/industrial purposes from the late 1800s through 1980s. The area to the west of the Site was historically characterized by heavy industry and manufacturing. The area was subject to a steady decline of industrial operations and manufacturing from the late 1960s through the 1980s and is now predominantly commercial and residential.

2.5 PREVIOUS INVESTIGATIONS AND REMEDIAL MEASURES

To date the following investigations and remedial measures have been performed at the subject Site:

- Phase I Environmental Site Assessment (Environmental Business Solutions [EBC], May 2015)
- Phase II Site Assessment (EBC, February and April 2015)
- Remedial Investigation (EBC, December 2015)
- Summary of Construction Activities and Remedial Measures (May to December 2018)

May 2015 – Phase I Environmental Site Assessment (EBC)

The Phase I Environmental Site Assessment (ESA) identified the following Recognized Environmental Conditions (RECs) for the Site:

- The 1916 and 1942 Sanborn maps show a parking garage building with an underground gasoline storage tank in the northeast portion of the building. A Site inspection performed in 2015 noted a fill port indicative of an underground gasoline storage tank within the same area of the gasoline tank drawn on the Sanborn maps indicating the tank(s) has not been removed. No information regarding the current status of this tank and/or soil quality in its vicinity was available for review. As such, there is a potential for spills or release from gasoline underground storage tank to have impacted the subsurface.

- New York City Department of Building records indicated fuel oil was used for heating the building. Based on the age and size of the building, it is assumed that an underground storage tank of at least 550 gallons was used. No information/records were obtained indicating proper removal/abandonment of a No. 2 fuel oil underground storage tank had occurred. As such, there is potential for spills or release from the No. 2 fuel oil underground storage tank to have impacted the subsurface.

- City Directory Listings, Sanborn maps and internet search results indicate the building has been historically utilized for industrial purposes, including a machine shop, parking garage, wood box manufacturing and metal finishing. From approximately 1959 to 1998, Carter Spray Finishing Corporation utilized two 275-gallon aboveground storage tanks that contained trichloroethene (TCE) and the Toxic Chemical Release Inventory System (TRIS) database indicates Carter Spray Finishing Corporation emitted greater than 8,000 pounds per year of TCE into the air. As such, there is a potential for historic site operations to have impacted soil, groundwater, and/or soil vapor quality beneath the Site.

Based on its findings, EBC recommended a Phase II Investigation be conducted to document subsurface conditions and determine the nature and extent of contamination, if any.

February and April 2015 – Limited Phase II Environmental Site Assessment (EBC)

An initial Limited Phase II Environmental Site Assessment performed by EBC in February 2015 and included the following scope of work:

1. Installed two soil borings and collected soil samples for chemical analysis from the soil borings to evaluate soil quality; and,

2. Collected one groundwater sample for chemical analysis to evaluate groundwater quality.

Additional sampling was performed by EBC in April 2015 and included the following scope of work:

1. Installed three soil borings and collected soil samples for chemical analysis from the soil borings to evaluate soil quality; and,

2. Collected three groundwater samples for chemical analysis to evaluate groundwater quality.

Shallow soil samples representing the depth interval 0 to 2 feet below grade were collected from the historic fill layer and were analyzed for polychlorinated biphenyls (PCBs) and Target Analyte List (TAL) metals. Soil samples representing the depth interval 11 to 13 feet below grade were collected from the water table interface and analyzed for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). The laboratory results identified petroleum related VOCs above Unrestricted Use SCOs and Protection of Groundwater SCOs within the samples collected from the water table interface, including n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene, and Toluene. Trichloroethene (TCE) (1,100 ug/kg) was detected within one of the samples at the water table interface.

Petroleum-related VOCs were detected in the groundwater samples above groundwater quality standards (GQS). Petroleum-related VOCs detected above GQS includes 2-Isopropyltoluene, Isopropylbenzene, n-Butylbenzene, n-Propyl-benzene, sec-Butylbenzene, and tert-Butylbenzene.

SVOCs including Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, and Indeno(1,2,3-cd)pyrene were reported above Restricted Residential Use SCOs within the soil sample from soil boring B2 (11-13 ft).

December 2015 – Remedial Investigation (EBC)

A Remedial Investigation (RI) performed by EBC included the following scope of work:

1. Installed ten soil borings (15SB1 – 15SB10) and collected 31 soil samples for chemical analysis to evaluate soil quality;

2. Installed eight groundwater monitoring wells (15MW1 – 15MW8) and collected eight groundwater samples for chemical analysis to evaluate groundwater quality; and,

3. Installed seven soil vapor probes and collected 7 samples for chemical analysis to evaluate the potential for vapor intrusion.

Soil samples collected at both 0 to 2 and 2 to 4 feet below grade were analyzed for VOCs, SVOCs, pesticides, PCBs, and TAL metals. Soil samples collected at 11 to 13 feet below grade (groundwater interface) were analyzed for VOCs and SVOCs. Soil samples collected at 18 to 20 feet below grade (native soil layer) were analyzed for VOCs, SVOCs, pesticides, PCBs, and TAL metals. Groundwater samples were analyzed for VOCs, SVOCs, pesticides, PCBs, and TAL metals and dissolved metals. Soil vapor samples were analyzed for VOCs by EPA Method TO-15.

A summary of the environmental findings of the Remedial Investigation includes the following:

1. A 5- to 6-foot thick zone of petroleum VOC contamination was identified at the groundwater interface across the Site.

2. TCE impacted soil with the highest concentrations was detected in the shallow soil samples collected from the western portion of the Site.

3. A historic fill material layer extending to depths as deep as 13 feet below grade contained SVOCs and metals exceeding the commercial SCOs.

4. A native soil layer approximately 18 to 20 feet below grade contained elevated concentrations of both arsenic and mercury.

5. Petroleum related VOCs were detected above GQS in six of the eight groundwater samples.

6. Low levels of petroleum related VOCs were detected in soil vapor samples in addition to elevated concentrations of the chlorinated VOCs, TCE and PCE.

May to December 2018 – Summary of Construction Activities

Construction activities and remedial measures took place on the Site from May to December 2018. Construction work was completed under the final Interim Remedial Measures Work Plan (IRMWP) submitted to NYSDEC in January 2016 by AMC Engineering. According to available records, intrusive work began on the Site in late May 2018 and commenced with the excavation and offsite disposal of soil from 0 to 5 feet below grade site wide. This interval was documented as the historic fill layer. Executed manifests and logs indicated that a total of 6,458.53 tons of soil were excavated and transported offsite to Bayshore Soil Management Facility (Bayshore) located in Keasbey, NJ. Soil excavation and offsite disposal was temporarily concluded on 13 December 2018.

Beginning on 12 June 2018, a secant pile wall was installed on the perimeter of the Site as part of the support-of-excavation (SOE) design and was overseen by Mueser Rutledge Consulting Engineers (Mueser). A review of daily field reports prepared by Mueser revealed that a total of 292 secant piles (each grouted) were installed. An unknown number of tiebacks were also installed as part of the SOE.

On 20 June 2018, a 550-gallon underground storage tank located in the southeast corner of the Site was removed according to a tank removal affidavit provided by Eastern Environmental Solutions, Inc. The affidavit indicates that the tank was purged, cut open, cleaned of all contents, and disposed of at a permitted disposal facility. The associated piping was also removed and disposed of at a permitted scrap metal facility.

Dewatering efforts were required on-site during excavation. Dewatering permits were authorized by the NYC Department of Environmental Protection on 9 December 2018, to discharge up to 20,000 gallons per day (gpd) of groundwater during construction. Although the permits were authorized, no records indicate that a dewatering system was implemented. The permits have since expired.

Construction and IRM activities have left an open excavation area approximately 5 to 6 feet below grade. The excavation is heavily vegetated and contains approximately 1- to 2-ft of standing water. Garbage, debris, and construction materials are scattered throughout the excavation depression.

October 2021- Corrective Action Work Plan (Haley & Aldrich)

A Corrective Action Work Plan (CAWP) was submitted and approved by NYSDEC on 12 October 2021. The CAWP is ongoing and designed to address the deficiencies in Site progression through the BCP and remedy non-compliant conditions at the Site. Corrective Action activities required equipment mobilization, dewatering, installation of a demarcation layer, backfilling, and documentation sampling. Based on initial observations, the soil appears to be saturated to the point where collection of endpoint samples may not be feasible until the material is stabilized or backfill is installed.

3. Supplemental Investigation

This section describes the field activities to be conducted during the SI and provides the sampling scope, objectives, methods, anticipated number of samples, and sample locations. A summary of the sampling and analysis plan is provided in Table 14 and Figure 3. The following activities will be conducted to fill data gaps and determine the nature and extent of contamination at the site.

3.1 UTILITY MARKOUT AND SURVEY

Field personnel will mobilize to the site to stake (with flagging or paint) the proposed soil sample locations. Once the sample locations are marked, Dig Safely New York will be contacted to mark underground utilities. If necessary, the adjacent property owners and private vendors will be contacted for assistance with a mark out of utilities. Once the utilities are marked, field equipment and personnel will be mobilized to the site. A current elevation survey will also be conducted at the Site.

3.2 SOIL SAMPLING

To further characterize subsurface soil conditions and analyze for additional parameters (i.e., per- and polyfluoroalkyl substances [PFAS] and 1,4-dioxane) on-Site soil samples will be collected to meet NYSDEC DER-10 requirements for remedial investigations.

The sampling and analysis plan is summarized in Table 14. Twelve soil borings will be installed to 20 feet below sidewalk grade (ft bgs) by a track-mounted direct-push drill rig (Geoprobe®) operated by a licensed operator. Soil samples will be collected from acetate liners using a stainless-steel trowel or sampling spoon. Samples will be collected using laboratory provided clean bottle ware. VOC grab samples will be collected using terra cores.

Soils will be logged continuously by a geologist or engineer using the Unified Soil Classification System. The presence of staining, odors, and photoionization detector (PID) response will be noted. Samples will be collected using laboratory-provided clean bottle ware. VOC grab samples will be collected using terra cores. Sampling methods are described in the Field Sampling Plan (FSP) provided as Appendix B. A Quality Assurance Project Plan (QAPP) is provided as Appendix C. Laboratory data will be reported in ASP Category B deliverable format.

Soil samples representative of Site conditions will be collected at twelve locations widely distributed across the site, as shown in Figure 3. Samples will be collected from 0 to 2 inches below current grade (variable throughout the Site) and from 18 to 20 feet below sidewalk grade. Additional samples will be collected from any interval exhibiting elevated PID readings or visual and olfactory impacts. Soil samples will be analyzed for:

- Target Compound List (TCL) VOCs using EPA method 8260B
- TCL SVOCs using EPA method 8270C
- Total Analyte List (TAL) Metals using EPA method 6010
- Per- and polyfluoroalkyl substances (PFAS) by Modified EPA Method 537.1
- 1,4-dioxane by EPA Method 8270 SIM

Samples to be analyzed for PFAS and 1,4-dioxane will be collected and analyzed in accordance with the NYSDEC issued June 2021 “Guidelines for sampling and Analysis of PFAS” and the June 2019 Sampling for “1,4-dioxane and Per- and Polyfluoroalkyl Substances (PFAS) Under DECs Part 375 Remedial Programs,” respectively.

Endpoint sample locations to be collected during the Corrective Action are detailed in Figure 3. If Site conditions do not allow for all of the endpoint samples to be collected during the Corrective Action, they will be collected during this Supplemental Investigation by the updated Sample nomenclature reflected in Figure 3.

3.3 GROUNDWATER SAMPLING

The purpose of the groundwater sampling is to obtain current groundwater data and analyze for additional parameters (i.e., per- and polyfluoroalkyl substances [PFAS] and 1,4-dioxane) to meet NYSDEC DER-10 requirements for remedial investigations.

Five two-inch permanent monitoring wells will be installed to 20 ft bgs. Monitoring wells will have a 2-inch annular space and will be installed using either #0 or #00 certified clean sand fill. Wells will be screened from 10 to 20 ft bgs. Groundwater was encountered at approximately 12 to 13 ft bgs during the RI completed in 2015. Monitoring wells will be developed at least one week after installation by surging a pump in the well several times to pull fine-grained material from the well. Development will be completed until the water turbidity is 50 nephelometric turbidity units (NTU) or less or ten well volumes are removed, if possible. The well casings will be surveyed by a New York State licensed surveyor to facilitate the preparation of a groundwater contour map and to determine the direction of groundwater flow.

The sampling and analysis plan is summarized in Table 14. Well locations are provided in Figure 3.

Monitoring wells MW-01 through MW-05 will be sampled and analyzed for:

- TCL VOCs using EPA method 8260B;
- TCL SVOCs using EPA method 8270C;
- Total Metals using EPA methods 6010/7471;
- PFAS using Modified EPA method 537; and
- 1,4-Dioxane using EPA method 8260B.

Samples to be analyzed for PFAS and 1,4-dioxane will be collected and analyzed in accordance with the NYSDEC issued January 2020 “Guidelines for sampling and Analysis of PFAS” and the June 2019 Sampling for “1,4-dioxane and Per- and Polyfluoroalkyl Substances (PFAS) Under DECs Part 375 Remedial Programs,” respectively.

Groundwater wells will be sampled using low-flow sampling methods described in the Field Sampling Plan (FSP). Following the low-flow purge, samples will be collected from monitoring wells for analysis of the analytes mentioned above.

The FSP presented in Appendix B details field procedures and protocols that will be followed during field activities. The Quality Assurance Project Plan (QAPP) presented in Appendix C details the analytical methods and procedures that will be used to analyze samples collected during field activities. Wells to be sampled for PFAS will be done following the purge and sampling method detailed in the NYSDEC guidance documents (see Appendix D).

3.4 INVESTIGATION DERIVED WASTE

Following sample collection, boreholes that are not converted to monitoring wells will be backfilled with soil cutting and an upper bentonite plug. Boreholes will be restored to grade with the surrounding area. If soil is identified as grossly contaminated, it will be separated and placed into a sealed and labeled Department of Transportation (DOT) approved 55-gallon drum pending characterization and offsite disposal. Groundwater purged from the monitoring wells during development and sample collected will be placed into a DOT approved 55-gallon drum pending offsite disposal.

3.5 SOIL VAPOR SAMPLING

Samples will be collected in accordance with the Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH October 2006). Five soil vapor probes will be installed to approximately 10 to 11 ft bgs, approximately one and two feet above the groundwater interface (previously encountered at approximately 12 to 13 ft bgs). The vapor implants will be installed with a direct-push drilling rig (e.g., Geoprobe®) to advance a stainless-steel probe to the desired sample depth. Sampling will occur for the duration of two (2) hours.

Samples will be collected in appropriately sized Summa canisters that have been certified clean by the laboratory, and samples will be analyzed by using USEPA Method TO-15. Flow rate for both purging and sampling will not exceed 0.2 L/min. Sampling methods are described in the Field Sampling Plan (FSP) provided as Appendix B.

3.6 PROPOSED SAMPLING RATIONALE

Haley & Aldrich has proposed the sample plan described herein and as shown in Figure 3, in consideration of the data generated during the Remedial Investigation performed in 2015. Proposed sampling locations will address data gaps from the RI to further delineate soil and soil vapor contamination as well as obtain additional samples of the groundwater plume. Sampling locations will also help characterize soil conditions post-corrective action. Since the Site was idle since late 2018, with standing water accumulating in the excavation and dense vegetation growing across the Site, soil will be sampled directly below the previous excavation at 0 to 2 inches below current grade to test if soil conditions have changed. A deeper soil sample will be collected at each soil boring from 18 to 20 ft below current grade to examine the extent of contamination in deeper soils above Restricted-residential criteria previously identified in the RI.

SB-01/MW-01/SV-01 will be installed proximal to the location where a 550-gallon fuel oil underground storage tank (UST) was removed during construction activities in June 2018 to analyze whether subsurface impacts have occurred from the tank.

Lastly, soil and groundwater samples will be analyzed for emerging contaminants, not previously analyzed in the RI.

4. Quality Assurance and Quality Control

Quality Assurance/Quality Control (QA/QC) procedures will be used to provide performance information with regard to the accuracy, precision, sensitivity, representation, completeness, and comparability associated with the sampling and analysis for this investigation. Field QA/QC procedures will be used (1) to document that samples are representative of actual conditions at the site and (2) identify possible cross-contamination from field activities or sample transit. Laboratory QA/QC procedures and analyses will be used to demonstrate whether analytical results have been biased either by interfering compounds in the sample matrix or by laboratory techniques that may have introduced systematic or random errors to the analytical process.

QA/QC procedures are defined in the Quality Assurance Project Plan included in Appendix C.

5. Data Use

5.1 DATA SUBMITTAL

Analytical data will be supplied in ASP Category B Data Packages if more stringent than those suggested by the United States Environmental Protection Agency, the laboratory's in-house QA/QC limits will be utilized. Validated data will be submitted to the NYSDEC EQuIS database in an EDD package.

5.2 DATA VALIDATION

Data packages will be sent to a qualified data validation specialist to evaluate the accuracy and precision of the analytical results. A Data Usability Summary Report (DUSR) will be created to confirm the compliance of methods with the protocols described in the NYSDEC Analytical service Protocol (ASP). DUSRs will summarize and confirm the usability of the data for project-related decisions. Data validation will be completed in accordance with the DUSR guidelines from the NYSDEC Division of Environmental Remediation. DUSRs will be included with the submittal of a Supplemental Investigation Report (SIR), further discussed in Section 8.

6. Project Organization

A project team for the site has been created based on qualifications and experience with personnel suited for successfully completing the project.

The NYSDEC Case Manager will be Caroline Jalanti. The Case Manager will be responsible for overseeing the successful completion of the project work and adherence to the work plan on behalf of NYSDEC.

The NYSDOH Case Manager will be Scarlett McLaughlin. The Case Manager will be responsible for overseeing the successful completion of the project work and adherence to the work plan on behalf of NYSDEC.

James Bellew will be the Qualified Environmental Professional (QEP) and Principal in Charge for this work. Mr. Bellew has 15 years of experience in investigation and remediation in New York and throughout the eastern United States. In this role, Mr. Bellew will be responsible for the overall completion of each task as per requirements outlined in this work plan and in accordance with the DER-10 guidance.

Mari Conlon P.G. will be the Project Manager for this work. In this role, Ms. Conlon will manage the day-to-day tasks including coordination and supervision of field engineers and scientists, adherence to the work plan and oversight of project schedule. As the Project Manager, Ms. Conlon will also be responsible for communications with the NYSDEC Case Manager regarding project status, schedule, issues, and updates for project work.

Die Fu will be the Assistant Project Manager for this work as well as the Quality Assurance Officer (QAO). The QAO will assure the application and effectiveness of the QAPP by the analytical laboratory and the project staff, provide input to field team as to corrective actions that may be required as a result of the above-mentioned evaluations and prepare and/or review data validation and audit reports.

Sarah Commisso will be the field geologist responsible for implementing the field effort for this work. Ms. Commisso's responsibilities will include implementing the work plan activities and directing the subcontractors to ensure successful completion of all field activities.

The drilling subcontractor will be Eastern Environmental Solutions and/or Coastal Environmental. Eastern Environmental Solutions and/or Coastal Environmental will provide a geoprobe operator to implement the scope of work in this SIWP.

The analytical laboratory will be Alpha Analytical of Westborough, MA, a New York Environmental Laboratory Approval Program (ELAP) certified laboratory. Alpha Analytical will be responsible for analyzing samples as per the analyses and methods identified in Section 2.

7. Health and Safety

7.1 HEALTH AND SAFETY PLAN

A Site-specific Health and Safety Plan (HASP) has been prepared in accordance with NYSDEC and NYSDOH guidelines and is provided as Appendix E of this work plan. The HASP includes a description of health and safety protocols to be followed by Haley & Aldrich field staff during implementation of the remedy, including monitoring within the work area, along with response actions should impacts be observed. The HASP has been developed in accordance with Occupational Health and Safety Administration (OSHA) 40 CFR Part 1910.120 regulatory requirements for use by Haley & Aldrich field staff that will work at the site during planned activities. Contractors or other personnel who perform work at the site are required to develop their own health and safety plan and procedures of comparable or higher content for their respective personnel in accordance with relevant OSHA regulatory requirements for work at hazardous waste sites as well as the general industry as applicable based on the nature of work being performed.

7.2 COMMUNITY AIR MONITORING PLAN

The proposed investigation/remediation work will be completed outdoors at the Site. Where intrusive operations are planned, community air monitoring will be implemented to protect the downwind receptors. A Haley & Aldrich representative will continually monitor the breathing air in the vicinity of the immediate work area using a PID to measure total VOCs in air at concentrations as low as 1 part per million (ppm). The air in the work zone also will be monitored for visible dust generation.

If visible dust generation is observed, the intrusive work will be temporarily halted, and a more rigorous monitoring of dust particulates using recordable meters will be implemented in accordance with the NYSDOH Generic Community Air Monitoring Plan (CAMP).

The following actions will be taken based on VOC monitoring:

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 ppm above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less, but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shut down.

CAMP data will be provided to NYSDEC in the daily reports, further detailed in Section 8.

8. Reporting

Daily reports will be submitted to NYSDEC and NYSDOH summarizing the Site activities completed during the remedial investigation. Daily reports will include a Site figure, a description of Site activities, a photo log, and CAMP data. Daily reports will be submitted the following morning after Site work is completed.

Following the completion of the work, a summary of the SI will be provided to NYSDEC in a Supplemental Investigation Report (SIR) to support the implementation of proposed remedial action. The report will include:

- Summary of the SRI activities;
- Figure showing sampling locations;
- Tables summarizing laboratory analytical results;
- Laboratory analytical data reports;
- Field sampling data sheets;
- Findings regarding the nature and extent of contamination at the site; and
- Conclusions and recommendations.

The SIR may be combined with the Remedial Action Work Plan (RAWP) as an SIR/RAWP. The SIR/RAWP will include all data collected during the RI and adhere to the technical requirements of DER-10.

9. Schedule

The Site owner plans to implement this SIWP promptly upon approval

Anticipated SI Schedule	
NYSDEC Approval of SIWP	November-December 2021
Supplemental Investigation Implementation	December 2021
Supplemental Investigation Report Submittal	January 2022
NYSDEC Review of Supplemental Investigation Report	January-February 2022

References

1. Phase I Screening. 65 Eckford Street, Brooklyn, New York. Prepared by Environmental Business Consultants, May 2015.

2. Phase II Investigation Data Summary. 65 Eckford Street, Brooklyn, New York. Prepared by Environmental Business Consultants, May 2015.

3. Remedial Investigation Report. 65 Eckford Street, Brooklyn, New York. Prepared by Environmental Business Consultants, Prepared for Z65 Realty LLC and New York State Department of Environmental Conservation, June 2016.

4. Corrective Action Work Plan. 65 Eckford Street, Brooklyn, New York. Prepared by Haley & Aldrich of New York, Prepared for 65-73 Eckford Realty LLC, August 2021.

5. Program Policy DER-10, “Technical Guidance for Site Investigation and Remediation,” New York State Department of Environmental Conservation, May 2010.

\\haleyaldrich.com\share\CF\Projects\0202156\Deliverables\3. Supplemental Investigation Work Plan\Text\2021-1102-HANY-65 Eckford St-SIWP-F2.docx

TABLES

65 Eckford Street
Brooklyn, New York

TABLE 1
Soil Analytical Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB1						15SB2						15SB3						15SB4						15SB5					
			(2-4')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')		(2-4')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')		(2-4')		(11-13')		(22-24')	
			12/16/2015		12/16/2015		12/16/2015		12/17/2015		12/17/2015		12/17/2015		12/16/2015		12/16/2015		12/16/2015		12/17/2015		12/17/2015		12/17/2015		12/16/2015		12/16/2015		12/16/2015	
			µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachlorothane			< 14	14	< 8900	8,900	< 5.5	5.5	< 16	16	< 14000	14,000	< 90	90	< 19	19	< 6.2	6.2	< 8.8	8.8	< 8.7	8.7	< 4700	4,700	< 21	21	< 20	20	< 6900	6,900	< 16	16
1,1,1-Trichloroethane	680	100,000	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 680	680	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 680	680	< 5.2	5.2	< 5.1	5.1	< 680	680	< 4.0	4.0
1,1,2,2-Tetrachloroethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
1,1,2-Trichloroethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
1,1-Dichloroethane	270	26,000	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
1,1-Dichloroethene	330	100,000	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
1,1-Dichloropropene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
1,2,3-Trichlorobenzene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
1,2,3-Trichloropropane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
1,2,4-Trichlorobenzene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
1,2,4-Trimethylbenzene	3,600	52,000	< 3.5	3.5	< 3500	3,500	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	**530**	3,600	< 5.2	5.2	< 220	220	**1,500**	3,500	< 4.0	4.0
1,2-Dibromo-3-chloropropane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
1,2-Dibromomethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
1,2-Dichlorobenzene	1,100	100,000	< 3.5	3.5	< 1000	1,000	< 5.5	5.5	< 3.9	3.9	< 1100	1,100	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 1100	1,100	< 5.2	5.2	< 220	220	< 1000	1,000	< 4.0	4.0
1,2-Dichloroethane	20	3,100	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 20	20	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
1,2-Dichloropropane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
1,3,5-Trimethylbenzene	8,400	52,000	< 3.5	3.5	< 8000	8,000	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
1,3-Dichlorobenzene	2,400	4,900	< 3.5	3.5	< 2000	2,000	< 5.5	5.5	< 3.9	3.9	< 2400	2,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 2400	2,400	< 5.2	5.2	< 220	220	< 1000	1,000	< 4.0	4.0
1,3-Dichloropropane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
1,4-Dichlorobenzene	1,800	13,000	< 3.5	3.5	< 1800	1,800	< 5.5	5.5	< 3.9	3.9	< 1800	1,800	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 1800	1,800	< 5.2	5.2	< 220	220	< 1000	1,000	< 4.0	4.0
1,4-dioxane	100	13,000	< 70	70	< 180000	######	< 98	98	< 79	79	< 69000	69,000	< 450	450	< 96	96	< 100	100	< 100	100	< 43	43	< 93000	93,000	< 100	100	< 100	100	< 140000	######	< 80	80
2,2-Dichloropropane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
2-Chlorotoluene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
2-Hexanone (Methyl Butyl Ketone)			< 18	18	< 45000	45,000	< 27	27	< 20	20	< 17000	17,000	< 110	110	< 24	24	< 31	31	< 44	44	< 11	11	< 23000	23,000	< 26	26	< 25	25	< 35000	35,000	< 20	20
2-Isopropyltoluene			< 3.5	3.5	**6,300**	8,900	< 5.5	5.5	< 3.9	3.9	**7,800**	6,900	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	**7,100**	4,700	< 5.2	5.2	< 220	220	**11,000**	6,900	**0.92**	4.0
4-Chlorotoluene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
4-Methyl-2-Pentanone			< 18	18	< 45000	45,000	< 27	27	< 20	20	< 17000	17,000	< 110	110	< 24	24	< 31	31	< 44	44	< 11	11	< 23000	23,000	< 26	26	< 25	25	< 35000	35,000	< 20	20
Acetone	50	100,000	**9.3**	35	**10,000**	89,000	**210**	55	< 39	39	< 34000	34,000	**630**	230	**14**	48	**29**	50	**170**	88	**3.9**	22	< 47000	47,000	**32**	50	< 50	50	< 69000	69,000	**47**	40
Acrolein			< 14	14	< 36000	36,000	< 22	22	< 16	16	< 14000	14,000	< 90	90	< 19	19	< 25	25	< 35	35	< 8.7	8.7	< 19000	19,000	< 21	21	< 20	20	< 28000	28,000	< 16	16
Acrylonitrile			< 7.0	7.0	< 36000	36,000	< 11	11	< 16	16	< 14000	14,000	< 90	90	< 19	19	< 12	12	< 35	35	< 8.7	8.7	< 9300	9,300	< 21	21	< 20	20	< 14000	14,000	< 16	16
Benzene	60	4,800	**0.45**	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Bromobenzene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
Bromochloromethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Bromodichloromethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Bromoform			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Bromomethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Carbon Disulfide			< 3.5	3.5	< 8900	8,900	**2.8**	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	**1.2**	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	**3.1**	4.0
Carbon tetrachloride	760	2,400	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 760	760	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 690	690	< 4.0	4.0
Chlorobenzene	1,100	100,000	< 3.5	3.5	**8,000**	8,900	< 5.5	5.5	< 3.9	3.9	< 1100	1,100	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 1100	1,100	< 5.2	5.2	< 5.1	5.1	< 1000	1,000	< 4.0	4.0
Chloroethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	**3,300**	6,900	< 4.0	4.0
Chloroform	370	49,000	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 370	370	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	**0.63**	5.1	< 6900	6,900	< 4.0	4.0
Chloromethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
cis-1,2-Dichloroethene	250	100,000	**430**	300	**1,900**	8,900	**4.1**	5.5	**450**	360	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
cis-1,3-Dichloropropene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Dibromochloromethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Dibromomethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Dichlorodifluoromethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Ethylbenzene	1,000	41,000	< 3.5	3.5	**2,900**	8,900	< 5.5	5.5	< 3.9	3.9	< 1000	1,000	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 1000	1,000	< 5.2	5.2	< 5.1	5.1	< 1000	1,000	< 4.0	4.0
Hexachlorobutadiene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
Isopropylbenzene			< 3.5	3.5	**4,800**	8,900	< 5.5	5.5	< 3.9	3.9	**570**	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	**6,600**	4,700	< 5.2	5.2	< 220	220	**1,700**	6,900	< 4.0	4.0
m&p-Xylenes	260	100,000	< 3.5	3.5	**5,700**	8,900	< 5.5	5.5	**110**	360	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Methyl Ethyl Ketone (2-Butanone)	120	100,000	< 21	21	< 54000	54,000	**55**	33	< 24	24	< 21000	21,000	**200**	140	< 29	29	< 37	37	**37**	53	< 13	13	< 28000	28,000	**8.7**	31	< 30	30	< 42000	42,000	**11**	24
Methyl t-butyl ether (MTBE)	930	100,000	< 7.0	7.0	< 18000	18,000	**1.4**	11	< 7.9	7.9	< 930	930	< 45	45	< 9.6	9.6	**1.2**	12	**1.9**	18	< 4.3	4.3	< 930	930	< 10	10	< 10	10	< 830	830	< 8.0	8.0
Methylene chloride	50	100,000	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Naphthalene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	**1,600**	6,900	< 4.0	4.0
n-Butylbenzene	12,000	100,000	< 3.5	3.5	**10,000**	8,900	< 5.5	5.5	< 3.9	3.9	**5,900**	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	**2,000**	4,700	< 5.2	5.2	< 220	220	**6,300**	6,900	< 4.0	4.0
n-Propylbenzene	3,900	100,000	< 3.5	3.5	**4,800**	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	**12,000**	4,700	< 5.2	5.2	< 220	220	**2,600**	3,900	< 4.0	4.0
o-Xylene	260	100,000	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
p-Isopropyltoluene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	**0.63**	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	**79**	340	< 220	220	< 6900	6,900	< 4.0	4.0
sec-Butylbenzene	11,000	100,000	< 3.5	3.5	**18,000**	8,900	< 5.5	5.5	< 3.9	3.9	**15,000**	6,900	< 23	23	< 370	370	**0.83**	6.2	< 570	570	< 2.2	2.2	**19,000**	4,700	< 5.2	5.2	< 220	220	**26,000**	6,900	**2**	4.0
Styrene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
tert-butyl alcohol			< 70	70	< 180000	######	< 110	110	< 79	79	< 69000	69,000	< 450	450	< 96	96	< 120	120	< 180	180	< 43	43	< 93000	93,000	< 100	100	< 100	100	< 140000	######	< 80	80
tert-Butylbenzene	5,900	100,000	< 3.5	3.5	**3,400**	5,000	< 5.5	5.5	< 3.9	3.9	**3,200**	3,000	< 23	23	< 370	370	**2.6**	6.2	< 570	570	< 2.2	2.2	**3,400**	4,700	< 5.2	5.2	< 220	220	**6,100**	6,900	**0.6**	4.0
Tetrachloroethene	1,300	19,000	**120**	300	< 1300	1,300	< 5.5	5.5	**350**	360	< 1300	1,300	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	**70**	190	< 1300	1,300	< 5.2	5.2	**90**	220	< 1200	1,200	< 4.0	4.0
Tetrahydrofuran (THF)			< 7.0	7.0	< 18000	18,000	< 11	11	< 7.9	7.9	< 6900	6,900	< 45	45	< 9.6	9.6	< 12	12	< 18	18	< 4.3	4.3	< 9300	9,300	< 10	10	< 10	10	< 14000	14,000	< 8.0	8.0
Toluene	700	100,000	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	**360**	360	< 700	700	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	**23**	190	< 700	700	< 5.2	5.2	< 5.1	5.1	< 700	700	< 4.0	4.0
trans-1,2-Dichloroethene	190	100,000	**1.2**	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
trans-1,3-Dichloropropene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
trabs-1,4-dichloro-2-butene			< 7.0	7.0	< 18000	18,000	< 11	11	< 7.9	7.9	< 6900	6,900	< 45	45	< 750	750	< 12	12	< 1100	1,100	< 4.3	4.3	< 9300	9,300	< 10	10	< 430	430	< 14000	14,000	< 8.0	8.0
Trichloroethene	470	21,000	**6,600**	300	< 8900	8,900	< 5.5	5.5	**4,000**	360	< 470	470	**3.8**	23	**1.1**	4.8	< 6.2	6.2	< 8.8	8.8	**140**	190	< 470	470	< 5.2	5.2	**780**	220	< 470	470	< 4.0	4.0
Trichlorofluoromethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Trichlorotrifluoroethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Vinyl Chloride	20	900	**1**	3.5	< 8900	8,900	**1.4**	5.5	< 3.9	3.9	< 3400	3,400	< 20	20	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Total BTEX Concentration			**0.45**		**8600**		**0**		**470**		**0**		**0**		**0**		**0**		**0**		**23**		**0**		**0**		**0**		**0**		**0**	
Total VOCs Concentration			**7161.95**		**75800**		**274.7**		**5270**		**32470**		**833.8**		**236.9**		**35.46**		**208.9**		**236.9**		**50630**		**119.7**		**870.63**		**60100**		**64.62**	

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

TABLE 1
Soil Analytical Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB6						15SB7						15SB8						15SB9						15SB10						Duplicate	
			(0-2')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')			
			12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015	
			µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachlorothane			< 32	32	< 9700	9,700	< 26	26	< 16	16	< 7900	7,900	< 1000	1,000	< 13	13	< 19000	19,000	< 24	24	< 1100	1,100	< 10	10	< 7.6	7.6	< 13	13	< 1700	1,700	< 55	55	< 9.9	9.9
1,1,1-Trichloroethane	680	100,000	< 8.1	8.1	< 680	680	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	**34**	180	< 680	680	< 5.9	5.9	**56**	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
1,1,2,2-Tetrachloroethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,1,2-Trichloroethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
1,1-Dichloroethane	270	26,000	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 270	270	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 270	270	< 14	14	< 2.5	2.5
1,1-Dichloroethene	330	100,000	< 8.1	8.1	< 330	330	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 330	330	< 14	14	< 2.5	2.5
1,1-Dichloropropene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
1,2,3-Trichlorobenzene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,2,3-Trichloropropane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,2,4-Trichlorobenzene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,2,4-Trimethylbenzene	3,600	52,000	< 8.1	8.1	< 2400	2,400	**0.81**	6.5	< 4.0	4.0	< 3600	3,600	< 250	250	**0.48**	3.2	**6,500**	5,900	**46**	290	**64**	280	**510**	330	< 220	220	< 320	320	**410**	420	< 1000	1,000	< 2.5	2.5
1,2-Dibromo-3-chloropropane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,2-Dibromomethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
1,2-Dichlorobenzene	1,100	100,000	< 8.1	8.1	< 1100	1,100	< 6.5	6.5	< 4.0	4.0	< 1100	1,100	< 250	250	< 3.2	3.2	< 1100	1,100	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,2-Dichloroethane	20	3,100	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
1,2-Dichloropropane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
1,3,5-Trimethylbenzene	8,400	52,000	< 8.1	8.1	< 2400	2,400	**0.99**	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	**0.76**	5.9	< 280	280	**200**	330	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,3-Dichlorobenzene	2,400	4,900	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 2400	2,400	< 250	250	< 3.2	3.2	< 2400	2,400	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,3-Dichloropropane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
1,4-Dichlorobenzene	1,800	13,000	< 8.1	8.1	< 1800	1,800	< 6.5	6.5	< 4.0	4.0	< 1800	1,800	< 250	250	< 3.2	3.2	< 1800	1,800	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,4-dioxane	100	13,000	< 100	100	< 48000	48,000	< 100	100	< 80	80	< 160000	160,000	< 5000	5,000	< 63	63	< 97000	97,000	< 100	100	< 5600	5,600	< 51	51	< 100	100	< 67	67	< 8300	8,300	< 100	100	< 49	49
2,2-Dichloropropane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
2-Chlorotoluene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
2-Hexanone (Methyl Butyl Ketone)			< 40	40	< 12000	12,000	< 32	32	< 20	20	< 40000	40,000	< 1200	1,200	< 16	16	< 24000	24,000	< 30	30	< 1400	1,400	< 13	13	< 38	38	< 17	17	< 2100	2,100	< 69	69	< 12	12
2-Isopropyltoluene			< 8.1	8.1	**1,800**	2,400	**17**	6.5	**2.7**	4.0	**10,000**	5,900	< 250	250	**6.7**	3.2	**11,000**	9,700	**39**	290	**50**	280	**51**	330	**24**	220	< 320	320	**1,600**	420	< 1000	1,000	< 2.5	2.5
4-Chlorotoluene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
4-Methyl-2-Pentanone			< 40	40	< 12000	12,000	< 32	32	< 20	20	< 40000	40,000	< 1200	1,200	< 16	16	< 24000	24,000	< 30	30	< 1400	1,400	< 13	13	< 38	38	< 17	17	< 2100	2,100	< 69	69	< 12	12
Acetone	50	100,000	< 50	50	< 24000	24,000	**70**	50	< 40	40	< 79000	79,000	< 2500	2,500	**8.2**	32	< 49000	49,000	< 50	50	< 2800	2,800	**3.1**	26	**16**	50	< 33	33	< 4200	4,200	**230**	50	< 25	25
Acrolein			< 32	32	< 9700	9,700	< 26	26	< 16	16	< 32000	32,000	< 1000	1,000	< 13	13	< 19000	19,000	< 24	24	< 1100	1,100	< 10	10	< 31	31	< 13	13	< 1700	1,700	< 55	55	< 9.9	9.9
Acrylonitrile			< 32	32	< 9700	9,700	< 26	26	< 16	16	< 16000	16,000	< 1000	1,000	< 13	13	< 19000	19,000	< 24	24	< 1100	1,100	< 10	10	< 15	15	< 13	13	< 1700	1,700	< 55	55	< 9.9	9.9
Benzene	60	4,800	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 60	60	**0.63**	3.2	< 4900	4,900	< 5.9	5.9	< 60	60	< 2.6	2.6	**34**	60	< 3.3	3.3	< 60	60	< 14	14	**0.34**	2.5
Bromobenzene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
Bromochloromethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Bromodichloromethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Bromoform			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Bromomethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Carbon Disulfide			< 8.1	8.1	< 2400	2,400	**1.8**	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	**3.6**	14	< 2.5	2.5
Carbon tetrachloride	760	2,400	< 8.1	8.1	< 760	760	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Chlorobenzene	1,100	100,000	< 8.1	8.1	< 1100	1,100	< 6.5	6.5	< 4.0	4.0	< 1100	1,100	< 250	250	< 3.2	3.2	< 1100	1,100	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Chloroethane			< 8.1	8.1	< 2400	2,400	**17**	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	**2.3**	14	< 2.5	2.5
Chloroform	370	49,000	< 8.1	8.1	< 370	370	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 370	370	< 14	14	< 2.5	2.5
Chloromethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
cis-1,2-Dichloroethene	250	100,000	< 8.1	8.1	< 250	250	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 250	250	< 2.6	2.6	< 7.6	7.6	**33**	250	**170**	250	< 14	14	< 2.5	2.5
cis-1,3-Dichloropropene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Dibromochloromethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Dibromomethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Dichlorodifluoromethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Ethylbenzene	1,000	41,000	< 8.1	8.1	< 1000	1,000	< 6.5	6.5	< 4.0	4.0	< 1000	1,000	< 250	250	**22**	180	< 1000	1,000	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	**98**	420	< 14	14	**31**	190
Hexachlorobutadiene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
Isopropylbenzene			< 8.1	8.1	**590**	2,400	**3.1**	6.5	**1.2**	4.0	**4,600**	2,000	< 250	250	**2**	3.2	**17,000**	9,700	**76**	290	**60**	280	**55**	330	< 220	220	< 320	320	**120**	420	< 1000	1,000	< 2.5	2.5
m&p-Xylenes	260	100,000	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	**120**	180	< 4900	4,900	< 5.9	5.9	**78**	280	**230**	330	< 7.6	7.6	< 3.3	3.3	**270**	420	< 14	14	**190**	190
Methyl Ethyl Ketone (2-Butanone)	120	100,000	< 48	48	< 15000	15,000	**22**	39	< 24	24	< 48000	48,000	< 1500	1,500	< 19	19	< 29000	29,000	< 36	36	< 1700	1,700	< 15	15	< 46	46	< 20	20	< 2500	2,500	**63**	83	< 15	15
Methyl t-butyl ether (MTBE)	930	100,000	< 16	16	< 930	930	**1.4**	13	< 8.0	8.0	< 16000	16,000	< 500	500	< 6.3	6.3	< 9700	9,700	< 12	12	< 560	560	< 5.1	5.1	< 15	15	< 6.7	6.7	< 830	830	< 28	28	< 4.9	4.9
Methylene chloride	50	100,000	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Naphthalene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	**110**	280	< 7900	7,900	**410**	250	**93**	180	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	**610**	420	< 1000	1,000	< 2.5	2.5
n-Butylbenzene	12,000	100,000	< 8.1	8.1	**710**	2,400	< 6.5	6.5	< 4.0	4.0	**7,700**	5,900	< 250	250	**19**	180	**16,000**	9,700	**31**	290	**86**	280	**71**	330	< 220	220	< 320	320	**1,100**	420	< 1000	1,000	< 2.5	2.5
n-Propylbenzene	3,900	100,000	< 8.1	8.1	**1,200**	2,400	< 6.5	6.5	**0.94**	4.0	**4,700**	3,900	< 250	250	**1.3**	3.2	**31,000**	9,700	**73**	290	**140**	280	**130**	330	< 220	220	< 320	320	**540**	420	< 1000	1,000	< 2.5	2.5
o-Xylene	260	100,000	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	**91**	180	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	**71**	190
p-Isopropyltoluene			< 8.1	8.1	< 2400	2,400	**2.4**	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	**0.3**	2.6	**130**	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
sec-Butylbenzene	11,000	100,000	< 8.1	8.1	**3,400**	2,400	**13**	6.5	**5.8**	4.0	**27,000**	16,000	< 250	250	**40**	180	**31,000**	9,700	**80**	290	**140**	280	**130**	330	**49**	220	< 320	320	**2,700**	420	< 1000	1,000	< 2.5	2.5
Styrene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
tert-butyl alcohol			< 160	160	< 48000	48,000	< 130	130	< 80	80	< 160000	160,000	< 5000	5,000	< 63	63	< 97000	97,000	< 120	120	< 5600	5,600	< 51	51	< 150	150	< 67	67	< 8300	8,300	< 280	280	< 49	49
tert-Butylbenzene	5,900	100,000	< 8.1	8.1	**650**	2,400	**39**	6.5	**1.7**	4.0	**5,100**	5,900	< 250	250	**4**	3.2	**4,700**	2,900	**68**	290	< 280	280	**0.51**	2.6	< 220	220	< 320	320	**630**	420	< 1000	1,000	< 2.5	2.5
Tetrachloroethene	1,300	19,000	**76**	250	< 1300	1,300	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 1300	1,300	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	**1.5**	3.3	< 420	420	< 14	14	**180**	190
Tetrahydrofuran (THF)			< 16	16	< 4800	4,800	< 13	13	< 8.0	8.0	< 16000	16,000	< 500	500	< 6.3	6.3	< 9700	9,700	< 12	12	< 560	560	< 5.1	5.1	< 15	15	< 6.7	6.7	< 830	830	< 28	28	< 4.9	4.9
Toluene	700	100,000	< 8.1	8.1	< 700	700	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	**35**	250	**220**	180	< 700	700	**32**	290	< 280	280	< 2.6	2.6	**79**	220	< 3.3	3.3	< 420	420	< 14	14	**29**	190
trans-1,2-Dichloroethene	190	100,000	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 190	190	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 190	190	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 190	190	< 14	14	< 2.5	2.5
trans-1,3-Dichloropropene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
trabs-1,4-dichloro-2-butene			< 16	16	< 4800	4,800	< 13	13	< 8.0	8.0	< 16000	16,000	< 500	500	< 6.3	6.3	< 9700	9,700	< 12	12	< 560	560	< 5.1	5.1	< 430	430	< 630	630	< 830	830	< 2000	2,000	< 4.9	4.9
Trichloroethene	470	21,000	**630**	250	< 470	470	< 6.5	6.5	**510**	280	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	**2,100**	320	< 420	420	< 14	14	**94**	190
Trichlorofluoromethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Trichlorotrifluoroethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Vinyl Chloride	20	900	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	**350**	420	< 14	14	< 2.5	2.5
Total BTEX Concentration			**0**		**0**		**0**		**0**		**0**		**35**		**453.63**		**0**		**0**		**78**		**230**		**113**		**0**		**368**		**0**		**321.34**	
Total VOCs Concentration			**706**		**8350**		**188.5**		**632.34**		**59100**		**445**		**662.31**		**117200**		**445.76**		**674**		**1380.91**		**332**		**2134.5**		**8598**		**298.9**		**595.34**	

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

TABLE 2
Soil Analytical Results
Volatile Organic TICs

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB5 (22-24') 12/17/2015 µg/Kg	
			Result	RL
Cyclohexane, 1-ethyl-4-methyl-, trans- (RT 4.930)			4.1	5
Cyclohexane, butyl- (RT 6.049)			10	5
unknown (RT 5.071)			5	5
unknown (RT 5.123)			7.8	5

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

TABLE 3
Soil Analytical Results
Semi-Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYSDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB1						15SB2						15SB3						15SB4						15SB5					
			(2-4') 12/16/2015 µg/Kg		(11-13') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(11-13') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(11-13') 12/16/2015 µg/Kg		(22-24') 12/16/2015 µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,2,4,5-Tetrachlorobenzene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
1,2,4-Trichlorobenzene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
1,2-Dichlorobenzene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
1,2-Diphenylhydrazine			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
1,3-Dichlorobenzene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
1,4-Dichlorobenzene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2,4,5-Trichlorophenol			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2,4,6-Trichlorophenol			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2,4-Dichlorophenol			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2,4-Dimethylphenol			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2,4-Dinitrophenol			< 660	660	< 820	820	< 980	980	< 780	780	< 930	930	< 2400	2,400	< 660	660	< 860	860	< 990	990	< 740	740	< 850	850	< 920	920	< 650	650	< 860	860	< 650	650
2,4-Dinitrotoluene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2,6-Dinitrotoluene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2-Chloronaphthalene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2-Chlorophenol			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2-Methylnaphthalene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	**300**	230	< 300	300	< 230	230
2-Methylphenol (o-cresol)	330	100,000	< 230	230	< 290	290	< 330	330	< 270	270	< 320	320	< 330	330	< 230	230	< 300	300	< 330	330	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2-Nitroaniline			< 660	660	< 820	820	< 980	980	< 780	780	< 930	930	< 2400	2,400	< 660	660	< 860	860	< 990	990	< 740	740	< 850	850	< 920	920	< 650	650	< 860	860	< 650	650
2-Nitrophenol			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
3&4-Methylphenol (m&p-cresol)	330	100,000	< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
3,3'-Dichlorobenzidine			< 660	660	< 820	820	< 980	980	< 780	780	< 930	930	< 2400	2,400	< 660	660	< 860	860	< 990	990	< 740	740	< 850	850	< 920	920	< 650	650	< 860	860	< 650	650
3-Nitroaniline			< 660	660	< 820	820	< 980	980	< 780	780	< 930	930	< 2400	2,400	< 660	660	< 860	860	< 990	990	< 740	740	< 850	850	< 920	920	< 650	650	< 860	860	< 650	650
4,6-Dinitro-2-methylphenol			< 1600	1,600	< 2100	2,100	< 2500	2,500	< 2000	2,000	< 2300	2,300	< 6000	6,000	< 1600	1,600	< 2200	2,200	< 2500	2,500	< 1800	1,800	< 2100	2,100	< 2300	2,300	< 1600	1,600	< 2200	2,200	< 1600	1,600
4-Bromophenyl phenyl ether			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
4-Chloro-3-methylphenol			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
4-Chloroaniline			< 260	260	< 330	330	< 390	390	< 310	310	< 370	370	< 960	960	< 260	260	< 340	340	< 390	390	< 290	290	< 340	340	< 370	370	< 260	260	< 350	350	< 260	260
4-Chlorophenyl phenyl ether			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
4-Nitroaniline			< 660	660	< 820	820	< 980	980	< 780	780	< 930	930	< 2400	2,400	< 660	660	< 860	860	< 990	990	< 740	740	< 850	850	< 920	920	< 650	650	< 860	860	< 650	650
4-Nitrophenol			< 330	330	< 410	410	< 490	490	< 390	390	< 460	460	< 1200	1,200	< 330	330	< 430	430	< 490	490	< 370	370	< 420	420	< 460	460	< 330	330	< 430	430	< 330	330
Acenaphthene	20,000	100,000	< 230	230	**380**	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	**210**	300	< 320	320	**620**	230	**1,400**	300	< 230	230
Acenaphthylene	100,000	100,000	**96**	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	**230**	230	**180**	300	< 230	230
Acetophenone			< 230	230	< 1200	1,200	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Aniline			< 260	260	< 330	330	< 390	390	< 310	310	< 370	370	< 960	960	< 260	260	< 340	340	< 390	390	< 290	290	< 340	340	< 370	370	< 260	260	< 350	350	< 260	260
Anthracene	100,000	100,000	< 230	230	**180**	290	< 340	340	< 270	270	< 320	320	< 840	840	**170**	230	< 300	300	< 340	340	< 260	260	**150**	300	< 320	320	**1,500**	230	**780**	300	< 230	230
Benz(a)anthracene	1,000	1,000	**170**	230	**410**	290	< 340	340	**140**	270	< 320	320	< 840	840	**490**	230	**220**	300	< 340	340	**400**	260	**580**	300	**300**	320	**4,300**	230	**1,100**	300	< 230	230
Benzidine			< 660	660	< 820	820	< 980	980	< 780	780	< 930	930	< 2400	2,400	< 660	660	< 860	860	< 990	990	< 740	740	< 850	850	< 920	920	< 650	650	< 860	860	< 650	650
Benzo(a)pyrene	1,000	1,000	**230**	230	**610**	290	< 340	340	**160**	270	< 320	320	< 840	840	**540**	230	**230**	300	< 340	340	**380**	260	**780**	300	**300**	320	**4,500**	230	**1,200**	300	< 230	230
Benzo(b)fluoranthene	1,000	1,000	**480**	230	**530**	290	< 340	340	< 270	270	< 320	320	< 840	840	**430**	230	**200**	300	< 340	340	**320**	260	**610**	300	**260**	320	**3,900**	230	**880**	300	< 230	230
Benzo(ghi)perylene	100,000	100,000	**610**	230	**510**	290	< 340	340	< 270	270	< 320	320	< 840	840	**310**	230	< 300	300	< 340	340	**240**	260	**430**	300	< 320	320	**1,800**	230	**670**	300	< 230	230
Benzo(k)fluoranthene	800	3,900	**400**	230	**580**	290	< 340	340	**140**	270	< 320	320	< 800	800	**460**	230	**180**	300	< 340	340	**360**	260	**590**	300	**260**	320	**3,300**	230	**840**	300	< 230	230
Benzoic acid			< 1600	1,600	< 2100	2,100	< 2500	2,500	< 2000	2,000	< 2300	2,300	< 6000	6,000	< 1600	1,600	< 2200	2,200	< 2500	2,500	< 1800	1,800	< 2100	2,100	< 2300	2,300	< 1600	1,600	< 2200	2,200	< 1600	1,600
Benzyl butyl phthalate			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Bis(2-chloroethoxy)methane			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Bis(2-chloroethyl)ether			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Bis(2-chloroisopropyl)ether			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Bis(2-ethylhexyl)phthalate			< 230	230	**510**	290	< 340	340	**150**	270	**570**	320	< 840	840	< 230	230	< 300	300	< 340	340	**1,400**	260	**160**	300	< 320	320	< 230	230	**770**	300	< 230	230
Carbazole			< 1600	1,600	< 2100	2,100	< 2500	2,500	< 2000	2,000	< 2300	2,300	< 6000	6,000	< 1600	1,600	< 2200	2,200	< 2500	2,500	< 1800	1,800	< 2100	2,100	< 2300	2,300	**550**	1,600	< 2200	2,200	< 1600	1,600
Chrysene	1,000	3,900	**310**	230	**510**	290	< 340	340	**160**	270	< 320	320	< 840	840	**520**	230	**260**	300	< 340	340	**460**	260	**680**	300	**320**	320	**4,400**	230	**1,200**	300	< 230	230
Dibenz(a,h)anthracene	330	330	**130**	230	< 290	290	< 330	330	< 270	270	< 320	320	< 330	330	< 230	230	< 300	300	< 330	330	< 260	260	< 300	300	< 320	320	**450**	230	**170**	300	< 230	230
Dibenzofuran	7,000	59,000	< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	**480**	230	< 300	300	< 230	230
Diethyl phthalate			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Dimethylphthalate			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Di-n-butylphthalate			< 230	230	< 290	290	< 340	340	**160**	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	**110**	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Di-n-octylphthalate			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Fluoranthene	100,000	100,000	**250**	230	**760**	290	< 340	340	**210**	270	< 320	320	< 840	840	**910**	230	**460**	300	< 340	340	**740**	260	**770**	300	**630**	320	**6,900**	1,100	**2,200**	300	< 230	230
Fluorene	30,000	100,000	< 230	230	**240**	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	**160**	300	< 320	320	**630**	230	**1,000**	300	< 230	230
Hexachlorobenzene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Hexachlorobutadiene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Hexachlorocyclopentadiene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Hexachloroethane			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Indeno(1,2,3-cd)pyrene	500	500	**630**	230	**510**	290	< 340	340	< 270	270	< 320	320	< 500	500	**350**	230	**150**	300	< 340	340	**230**	260	**480**	300	**180**	320	**2,400**	230	**550**	300	< 230	230
Isophorone			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Naphthalene	12,000	100,000	< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	**7,900**	300	< 230	230
Nitrobenzene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
N-Nitrosodimethylamine			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
N-Nitrosodi-n-propylamine			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
N-Nitrosodiphenylamine			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Pentachloronitrobenzene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Pentachlorophenol	800	6,700	< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 800	800	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Phenanthrene	100,000	100,000	**120**	230	**190**	290	< 340	340	**120**	270	< 320	320	< 840	840	**770**	230	**420**	300	< 340	340	**600**	260	**750**	300	**570**	320	**6,100**	230	**3,900**	300	< 230	230
Phenol	330	100,000	< 230	230	< 290	290	< 330	330	< 270	270	< 320	320	< 330	330	< 230	230	< 300	300	< 330	330	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Pyrene	100,000	100,000	**190**	230	**770**	290	< 340	340	**210**	270	< 320	320	< 840	840	**840**	230	**440**	300	< 340	340	**750**	260	**760**	300	**550**	320	**6,700**	1,100	**3,400**	300	< 230	230
Pyridine			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230

Notes:
* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives
RL- Reporting Limit
Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value
Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

TABLE 3
Soil Analytical Results
Semi-Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB6						15SB7						15SB8						15SB9						15SB10						Duplicate	
			(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		12/17/2015 µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,2,4,5-Tetrachlorobenzene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
1,2,4-Trichlorobenzene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
1,2-Dichlorobenzene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
1,2-Diphenylhydrazine			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
1,3-Dichlorobenzene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
1,4-Dichlorobenzene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2,4,5-Trichlorophenol			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2,4,6-Trichlorophenol			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2,4-Dichlorophenol			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2,4-Dimethylphenol			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2,4-Dinitrophenol			< 760	760	< 990	990	< 1000	1,000	< 750	750	< 820	820	< 880	880	< 750	750	< 860	860	< 940	940	< 770	770	< 810	810	< 750	750	< 720	720	< 960	960	< 1300	1,300	< 810	810
2,4-Dinitrotoluene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2,6-Dinitrotoluene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2-Chloronaphthalene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2-Chlorophenol			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2-Methylnaphthalene			< 270	270	< 350	350	< 360	360	**770**	260	< 290	290	< 310	310	**160**	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2-Methylphenol (o-cresol)	330	100,000	< 270	270	< 330	330	< 330	330	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 330	330	< 330	330	< 280	280
2-Nitroaniline			< 760	760	< 990	990	< 1000	1,000	< 750	750	< 820	820	< 880	880	< 750	750	< 860	860	< 940	940	< 770	770	< 810	810	< 750	750	< 720	720	< 960	960	< 1300	1,300	< 810	810
2-Nitrophenol			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
3&4-Methylphenol (m&p-cresol)	330	100,000	< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	**260**	310	< 260	260	< 300	300	**330**	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
3,3'-Dichlorobenzidine			< 760	760	< 990	990	< 1000	1,000	< 750	750	< 820	820	< 880	880	< 750	750	< 860	860	< 940	940	< 770	770	< 810	810	< 750	750	< 720	720	< 960	960	< 1300	1,300	< 810	810
3-Nitroaniline			< 760	760	< 990	990	< 1000	1,000	< 750	750	< 820	820	< 880	880	< 750	750	< 860	860	< 940	940	< 770	770	< 810	810	< 750	750	< 720	720	< 960	960	< 1300	1,300	< 810	810
4,6-Dinitro-2-methylphenol			< 1900	1,900	< 2500	2,500	< 2600	2,600	< 1900	1,900	< 2100	2,100	< 2200	2,200	< 1900	1,900	< 2200	2,200	< 2300	2,300	< 1900	1,900	< 2000	2,000	< 1900	1,900	< 1800	1,800	< 2400	2,400	< 3200	3,200	< 2000	2,000
4-Bromophenyl phenyl ether			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
4-Chloro-3-methylphenol			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
4-Chloroaniline			< 300	300	< 400	400	< 410	410	< 300	300	< 330	330	< 350	350	< 300	300	< 350	350	< 380	380	< 310	310	< 320	320	< 300	300	< 290	290	< 380	380	< 510	510	< 320	320
4-Chlorophenyl phenyl ether			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
4-Nitroaniline			< 760	760	< 990	990	< 1000	1,000	< 750	750	< 820	820	< 880	880	< 750	750	< 860	860	< 940	940	< 770	770	< 810	810	< 750	750	< 720	720	< 960	960	< 1300	1,300	< 810	810
4-Nitrophenol			< 380	380	< 490	490	< 520	520	< 370	370	< 410	410	< 440	440	< 370	370	< 430	430	< 470	470	< 380	380	< 400	400	< 380	380	< 360	360	< 480	480	< 630	630	< 410	410
Acenaphthene	20,000	100,000	< 270	270	< 350	350	< 360	360	**2,300**	260	< 290	290	< 310	310	**420**	260	< 300	300	**190**	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Acenaphthylene	100,000	100,000	< 270	270	< 350	350	< 360	360	**210**	260	< 290	290	< 310	310	**120**	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Acetophenone			< 270	270	< 350	350	< 360	360	< 260	260	< 4500	4,500	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Aniline			< 300	300	< 400	400	< 410	410	< 300	300	< 330	330	< 350	350	< 300	300	< 350	350	< 380	380	< 310	310	< 320	320	< 300	300	< 290	290	< 380	380	< 510	510	< 320	320
Anthracene	100,000	100,000	< 270	270	< 350	350	< 360	360	**3,900**	260	< 290	290	**270**	310	**840**	260	< 300	300	**490**	330	**240**	270	**140**	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Benz(a)anthracene	1,000	1,000	< 270	270	< 350	350	< 360	360	**6,400**	260	< 290	290	**560**	310	**2,000**	260	**150**	300	**770**	330	**1,800**	270	**610**	280	< 260	260	< 250	250	**210**	340	**260**	440	**370**	280
Benzidine			< 760	760	< 990	990	< 1000	1,000	< 750	750	< 820	820	< 880	880	< 750	750	< 860	860	< 940	940	< 770	770	< 810	810	< 750	750	< 720	720	< 960	960	< 1300	1,300	< 810	810
Benzo(a)pyrene	1,000	1,000	**130**	270	**190**	350	< 360	360	**5,000**	260	**130**	290	**490**	310	**1,900**	260	**150**	300	**720**	330	**1,800**	270	**660**	280	< 260	260	< 250	250	**210**	340	**250**	440	**380**	280
Benzo(b)fluoranthene	1,000	1,000	< 270	270	**180**	350	< 360	360	**4,100**	260	< 290	290	**420**	310	**1,600**	260	< 300	300	**560**	330	**1,700**	270	**560**	280	< 260	260	< 250	250	**210**	340	**240**	440	**320**	280
Benzo(ghi)perylene	100,000	100,000	< 270	270	**160**	350	< 360	360	**2,500**	260	< 290	290	**250**	310	**920**	260	< 300	300	**390**	330	**1,000**	270	**320**	280	< 260	260	< 250	250	**180**	340	< 440	440	**240**	280
Benzo(k)fluoranthene	800	3,900	< 270	270	< 350	350	< 360	360	**3,800**	260	< 290	290	**410**	310	**1,600**	260	< 300	300	**600**	330	**1,700**	270	**580**	280	< 260	260	< 250	250	**190**	340	**250**	440	**370**	280
Benzoic acid			< 1900	1,900	< 2500	2,500	< 2600	2,600	< 1900	1,900	< 2100	2,100	< 2200	2,200	< 1900	1,900	< 2200	2,200	< 2300	2,300	< 1900	1,900	< 2000	2,000	< 1900	1,900	< 1800	1,800	< 2400	2,400	< 3200	3,200	< 2000	2,000
Benzyl butyl phthalate			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Bis(2-chloroethoxy)methane			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Bis(2-chloroethyl)ether			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Bis(2-chloroisopropyl)ether			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Bis(2-ethylhexyl)phthalate			< 270	270	**310**	350	< 360	360	**470**	260	**360**	290	< 310	310	**200**	260	**840**	300	< 330	330	**1,000**	270	**120**	280	< 260	260	< 250	250	**630**	340	< 440	440	**170**	280
Carbazole			< 1900	1,900	< 2500	2,500	< 2600	2,600	**880**	1,900	< 2100	2,100	< 2200	2,200	**320**	1,900	< 2200	2,200	< 2300	2,300	< 1900	1,900	< 2000	2,000	< 1900	1,900	< 1800	1,800	< 2400	2,400	< 3200	3,200	< 2000	2,000
Chrysene	1,000	3,900	**150**	270	< 350	350	< 360	360	**6,600**	260	< 290	290	**570**	310	**2,300**	260	**150**	300	**790**	330	**2,100**	270	**700**	280	< 260	260	< 250	250	**240**	340	**290**	440	**430**	280
Dibenz(a,h)anthracene	330	330	< 270	270	< 330	330	< 330	330	**660**	260	< 290	290	< 310	310	**250**	260	< 300	300	< 330	330	**270**	270	< 280	280	< 260	260	< 250	250	< 330	330	< 330	330	< 280	280
Dibenzofuran	7,000	59,000	< 270	270	< 350	350	< 360	360	**1,400**	260	< 290	290	< 310	310	**300**	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Diethyl phthalate			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Dimethylphthalate			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Di-n-butylphthalate			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Di-n-octylphthalate			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Fluoranthene	100,000	100,000	**200**	270	**290**	350	< 360	360	**14,000**	2,600	**210**	290	**1,200**	310	**4,800**	260	**260**	300	**1,800**	330	**2,500**	270	**1,200**	280	< 260	260	< 250	250	**500**	340	**460**	440	**750**	280
Fluorene	30,000	100,000	< 270	270	< 350	350	< 360	360	**1,600**	260	< 290	290	< 310	310	**270**	260	< 300	300	**210**	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Hexachlorobenzene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Hexachlorobutadiene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Hexachlorocyclopentadiene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Hexachloroethane			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Indeno(1,2,3-cd)pyrene	500	500	< 270	270	< 350	350	< 360	360	**3,200**	260	< 290	290	**290**	310	**990**	260	< 300	300	**430**	330	**1,100**	270	**400**	280	< 260	260	< 250	250	**180**	340	< 440	440	**270**	280
Isophorone			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Naphthalene	12,000	100,000	< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Nitrobenzene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
N-Nitrosodimethylamine			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
N-Nitrosodi-n-propylamine			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
N-Nitrosodiphenylamine			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Pentachloronitrobenzene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Pentachlorophenol	800	6,700	< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Phenanthrene	100,000	100,000	< 270	270	**160**	350	< 360	360	**18,000**	2,600	**230**	290	**1,100**	310	**5,200**	260	**260**	300	**1,900**	330	**1,100**	270	**720**	280	< 260	260	< 250	250	**400**	340	**480**	440	**600**	280
Phenol	330	100,000	< 270	270	< 330	330	< 330	330	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 330	330	< 330	330	< 280	280
Pyrene	100,000	100,000	**230**	270	**290**	350	< 360	360	**12,000**	2,600	**200**	290	**960**	310	**4,300**	260	**250**	300	**1,600**	330	**2,200**	270	**1,100**	280	< 260	260	< 250	250	**470**	340	**440**	440	**730**	280
Pyridine			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

TABLE 4
Soil Analytical Results
Semi-Volatile Organic
TICs (15SB1-15SB5)

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB1				15SB2				15SB3				15SB4						15SB5			
			(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(22-24') 12/16/2015 µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
11H-Benzo[b]fluorene (RT 8.281)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	810	4	-	-
11H-Benzo[b]fluorene (RT 8.398)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11H-Benzo[b]fluorene (RT 8.404)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,800	4	-	-
11H-Benzo[b]fluorene Isomer (RT 8.281)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11H-Benzo[b]fluorene Isomer (RT 8.469)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	970	4	-	-
1H-Indene, 1-ethylidene- (RT 4.669)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1H-Indene, 2,3-dihydro-1,1-dimethy (RT 3.546)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,600	4	-	-	-	-	-	-
1H-Indene, 2-phenyl- (RT 7.239)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 1.981)			-	-	4,100	4	-	-	-	-	-	-	3,600	4	-	-	-	-	-	-	-	-	5,300	4
2-Pentanone, 4-hydroxy-4-methyl- (RT 1.981)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 1.987)			-	-	-	-	-	-	-	-	15,000	4	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.010)			120,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.063)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,900	4	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.063)			-	-	-	-	2,600	4	-	-	16,000	4	-	-	1,300	4	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.069)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,700	4	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.075)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.081)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.087)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.704)			-	-	-	-	-	-	19,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentene, 2,3-dimethyl- (RT 1.781)			2,800	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentene, 3-ethyl-4,4-dimethyl- (RT 2.904)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Phenylnaphthalene (RT 7.475)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,4-Dihydrocyclopenta(cd)pyrene (a (RT 9.716)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	840	4	-	-
3-Hexene, 3-ethyl-2,5-dimethyl- (RT 2.834)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene, 1-methyl- (RT 7.239)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene, 2-(1,1-dimethylethyl)- (RT 8.369)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	580	4	-	-	-	-
Anthracene, 2-methyl- (RT 7.216)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene, 2-methyl- (RT 7.240)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	670	4	-	-
Benz[e]acephenanthrylene (RT 11.792)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,200	4	-	-
Benzene, (2-methyl-1-butenyl)- (RT 3.540)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, (2-methyl-1-butenyl)- (RT 3.546)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2,3,4-tetramethyl- (RT 3.793)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2,3,4-tetramethyl- (RT 3.810)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,000	4	-	-	-	-	-	-
Benzene, 1,2,3,5-tetramethyl- (RT 3.581)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2,3-trimethyl- (RT 2.893)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2,4-trimethyl- (RT 2.893)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2-diethyl- (RT 3.193)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2-diethyl- (RT 3.204)			-	-	-	-	-	-	16,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1-methyl-3-(1-methylethyl (RT 3.599)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	21,000	4	-	-	-	-	-	-
Benzene, 1-methyl-4-(1-methylethyl)- (RT 3.057)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1-methyl-4-(1-methylethyl)- (RT 3.698)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1-methyl-4-(1-methylethyl)- (RT 3.810)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 2-ethyl-1,4-dimethyl- (RT 3.575)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, methyl(1-methylethyl)- (RT 3.575)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 11.786)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 11.886)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 11.898)			-	-	-	-	-	-	-	-	300	4	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 12.180)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 12.192)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 12.198)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,700	4	-	-
Benzo[e]pyrene Isomer (RT 11.780)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene Isomer (RT 12.510)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene Isomer (RT 12.522)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,100	4	-	-
Cyclohexane, (bromomethyl)- (RT 3.381)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, 1,1-dimethyl- (RT 2.904)			-	-	-	-	-	-	15,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, 1,3,5-trimethyl- (RT 2.704)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, 1-ethyl-1-methyl- (RT 2.828)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, eicosyl- (RT 3.675)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,900	4	-	-	-	-	-	-
Cyclohexane, octyl- (RT 2.845)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, pentyl- (RT 3.669)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, pentyl- (RT 3.675)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, propyl- (RT 2.540)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eicosane (RT 13.498)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexadecanoic acid (RT 7.228)			-	-	-	-	330	4	-	-	-	-	-	-	340	4	-	-	-	-	-	-	-	-
Hexadecanoic acid (RT 7.257)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene, 1,5-dimethyl- (RT 5.187)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene, decahydro-, trans- (RT 3.281)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene, decahydro-, trans- (RT 3.287)			-	-	-	-	-	-	32,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene, decahydro-, trans- (RT 3.299)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,300	4	-	-	-	-	-	-
Octadecane, 1-(ethenyloxy)- (RT 9.369)			-	-	-	-	-	-	-	-	1,500	4	-	-	-	-	-	-	-	-	-	-	-	-
Pentatriacontane (RT 11.645)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	330	4
Pentatriacontane (RT 11.651)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene, 2,5-dimethyl- (RT 7.710)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene, 2-methyl- (RT 7.216)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene, 3,4,5,6-tetramethyl- (RT 8.239)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfur dioxide (RT 5.575)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetracontane, 3,5,24-trimethyl- (RT 3.069)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tricyclo[4.3.1.13,8]undecane, 1-bromo (RT 3.640)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,500	4	-	-	-	-	-	-
Triphenylene, 2-methyl- (RT 10.210)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	940	4	-	-

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

TABLE 4
Soil Analytical Results
Semi-Volatile Organic
TICs (15SB1-15SB5)

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB1				15SB2				15SB3				15SB4						15SB5			
			(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(22-24') 12/16/2015 µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Unknown (RT 1.869)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 10.045)			-	-	-	-	-	-	-	-	8,200	4	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 10.351)			-	-	3,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 10.822)			-	-	840	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 11.216)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 11.457)			-	-	-	-	-	-	-	-	4,000	4	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 11.863)			-	-	1,100	4	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.128)			-	-	-	-	-	-	-	-	2,800	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.174)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.198)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.615)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.645)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	860	4	-	-	-	-
Unknown (RT 12.980)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 14.804)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 14.992)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 15.768)			-	-	-	-	-	-	-	-	-	-	1,100	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 15.768)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 15.886)			-	-	-	-	-	-	-	-	-	-	840	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 15.886)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 15.892)			-	-	1,500	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 15.980)			-	-	-	-	-	-	-	-	8,000	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.051)			-	-	-	-	-	-	-	-	2,700	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.074)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.098)			-	-	-	-	-	-	-	-	4,600	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.145)			-	-	-	-	-	-	-	-	-	-	640	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.145)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.186)			-	-	-	-	-	-	-	-	10,000	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.286)			-	-	760	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.345)			-	-	-	-	-	-	-	-	4,600	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.480)			-	-	-	-	-	-	-	-	1,700	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 17.033)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	560	4
Unknown (RT 17.033)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.075)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.445)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.546)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.552)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.610)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.699)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.704)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.734)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.751)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.810)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.816)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.828)			-	-	-	-	-	-	7,700	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.840)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.851)			-	-	-	-	-	-	18,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.893)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.904)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.957)			-	-	-	-	-	-	7,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.975)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.010)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.063)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.075)			-	-	-	-	-	-	25,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.081)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.093)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.104)			-	-	-	-	-	-	25,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.110)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.116)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,900	4	-	-	-	-	-	-
Unknown (RT 3.128)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.157)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.169)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.181)			-	-	-	-	-	-	7,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.193)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.198)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.234)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.275)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.287)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.310)			-	-	-	-	-	-	8,700	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.375)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.387)			-	-	-	-	-	-	21,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.410)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.487)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.522)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.540)			-	-	-	-	-	-	6,600	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.569)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,000	4	-	-	-	-	-	-
Unknown (RT 3.581)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.587)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

TABLE 4
Soil Analytical Results
Semi-Volatile Organic
TICs (15SB1-15SB5)

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB1				15SB2				15SB3				15SB4						15SB5			
			(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(22-24') 12/16/2015 µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Unknown (RT 3.593)			-	-	-	-	-	-	24,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.599)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.687)			-	-	-	-	-	-	21,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.693)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,000	4	-	-	-	-	-	-
Unknown (RT 3.722)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.728)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,200	4	-	-	-	-	-	-
Unknown (RT 3.792)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.793)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.798)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.834)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,200	4	-	-	-	-	-	-
Unknown (RT 3.869)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,000	4	-	-	-	-	-	-
Unknown (RT 3.893)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.899)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,900	4	-	-	-	-	-	-
Unknown (RT 3.934)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,900	4	-	-	-	-	-	-
Unknown (RT 4.669)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 4.675)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 5.210)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 5.622)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 5.686)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	950	4	-	-	-	-
Unknown (RT 5.687)			-	-	-	-	-	-	-	-	8,100	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 5.834)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 6.498)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.210)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.322)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,700	4	-	-
Unknown (RT 7.322)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.410)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	450	4	-	-	-	-
Unknown (RT 7.475)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.504)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.698)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.786)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.892)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.898)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.945)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.016)			-	-	-	-	-	-	-	-	290	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.022)			800	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.133)			-	-	-	-	1,300	4	-	-	-	-	-	-	-	-	-	-	400	4	-	-	-	-
Unknown (RT 8.134)			-	-	-	-	-	-	-	-	1,300	4	-	-	1,500	4	-	-	-	-	-	-	-	-
Unknown (RT 8.139)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.140)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	660	4	-	-
Unknown (RT 8.151)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.369)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.398)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 8.833)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.981)			-	-	-	-	-	-	-	-	14,000	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.016)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.022)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.028)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.210)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	710	4	-	-
Unknown (RT 9.234)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	710	4	-	-
Unknown (RT 9.298)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.304)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	680	4	-	-
Unknown (RT 9.304)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.398)			-	-	-	-	-	-	-	-	2,000	4	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 9.504)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 9.510)			-	-	1,500	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.516)			-	-	-	-	-	-	-	-	-	-	540	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.551)			-	-	-	-	-	-	-	-	-	-	880	4	-	-	-	-	-	-	-	-	-	-
unknown (RT 9.557)			-	-	2,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 9.851)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 10.351)			-	-	-	-	-	-	-	-	-	-	1,100	4	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 10.822)			-	-	-	-	-	-	-	-	-	-	420	4	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 11.210)			-	-	-	-	-	-	-	-	-	-	430	4	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 11.857)			-	-	-	-	-	-	-	-	-	-	550	4	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 12.251)			-	-	740	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 14.163)			-	-	-	-	-	-	-	-	-	-	2,300	4	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 14.174)			-	-	3,600	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 15.774)			-	-	850	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 8.416)			-	-	940	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 8.833)			-	-	-	-	-	-	-	-	-	-	6,900	4	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 8.845)			-	-	25,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 9.210)			-	-	3,900	4	-	-	-	-	-	-	1,500	4	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 9.857)			-	-	4,800	4	-	-	-	-	-	-	2,400	4	-	-	-	-	-	-	-	-	-	-
Vinylcyclooctane (RT 3.622)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,000	4	-	-	-	-	-	-

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

TABLE 5
Soil Analytical Results
Semi-Volatile Organic
TICS (15SB6-15SB10, Duplicate)

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB6						15SB7						15SB8						15SB9						15SB10						Duplicate	
			(0-2')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')			
			12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015	
			µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
11H-Benzo[b]fluorene (RT 8.398)			-	-	-	-	-	-	2,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11H-Benzo[b]fluorene Isomer (RT 8.281)			-	-	-	-	-	-	1,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1H-Indene, 1-ethylidene- (RT 4.669)			-	-	-	-	-	-	-	-	-	-	-	-	330	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1H-Indene, 2,3-dihydro-1,1-dimethy (RT 3.546)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1H-Indene, 2-phenyl- (RT 7.239)			-	-	-	-	-	-	2,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 1.981)			-	-	-	-	-	-	-	-	-	-	8,700	4	-	-	-	-	7,700	4	-	-	-	-	-	-	-	-	-	-	3,200	4	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.063)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,300	4
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.069)			-	-	-	-	14,000	4	-	-	-	-	-	-	13,000	4	-	-	-	-	-	-	7,100	4	11,000	4	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.075)			-	-	-	-	-	-	31,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23,000	4	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.081)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49,000	4	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.087)			45,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.704)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentene, 3-ethyl-4,4-dimethyl- (RT 2.904)			-	-	9,400	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Phenylnaphthalene (RT 7.475)			-	-	-	-	-	-	1,500	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Hexene, 3-ethyl-2,5-dimethyl- (RT 2.834)			-	-	-	-	-	-	-	-	3,600	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene, 1-methyl- (RT 7.239)			-	-	-	-	-	-	-	-	-	-	-	-	750	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene, 2-(1,1-dimethylethyl)- (RT 8.369)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene, 2-methyl- (RT 7.216)			-	-	-	-	-	-	2,300	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, (2-methyl-1-butenyl)- (RT 3.540)			-	-	-	-	-	-	-	-	2,600	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, (2-methyl-1-butenyl)- (RT 3.546)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,700	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2,3,4-tetramethyl- (RT 3.793)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	840	4	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2,3,4-tetramethyl- (RT 3.810)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2,3,5-tetramethyl- (RT 3.581)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	850	4	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2,3-trimethyl- (RT 2.893)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	510	4	-	-	470	4	-	-	-	-	-	-	-	-
Benzene, 1,2,4-trimethyl- (RT 2.893)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	950	4	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2-diethyl- (RT 3.193)			-	-	-	-	570	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	350	4	-	-	-	-	-	-	-	-
Benzene, 1,2-diethyl- (RT 3.204)			-	-	-	-	-	-	-	-	2,500	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1-methyl-3-(1-methylethyl (RT 3.599)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1-methyl-4-(1-methylethyl)- (RT 3.057)			-	-	-	-	710	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1-methyl-4-(1-methylethyl)- (RT 3.698)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,700	4	-	-	-	-
Benzene, 1-methyl-4-(1-methylethyl)- (RT 3.810)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 2-ethyl-1,4-dimethyl- (RT 3.575)			-	-	-	-	1,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, methyl(1-methylethyl)- (RT 3.575)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	4	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 11.786)			-	-	-	-	-	-	1,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 11.886)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 12.180)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,200	4	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 12.192)			-	-	-	-	-	-	3,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene Isomer (RT 11.780)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	460	4	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene Isomer (RT 12.510)			-	-	-	-	-	-	1,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, (bromomethyl)- (RT 3.381)			-	-	16,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, 1,1-dimethyl- (RT 2.904)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, 1,3,5-trimethyl- (RT 2.704)			-	-	12,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, 1-ethyl-1-methyl- (RT 2.828)			-	-	11,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, eicosyl- (RT 3.675)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, octyl- (RT 2.845)			-	-	13,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, pentyl- (RT 3.669)			-	-	-	-	-	-	-	-	6,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, pentyl- (RT 3.675)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, propyl- (RT 2.540)			-	-	11,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eicosane (RT 13.498)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,400	4	-	-
Hexadecanoic acid (RT 7.228)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexadecanoic acid (RT 7.257)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,000	4	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene, 1,5-dimethyl- (RT 5.187)			-	-	-	-	-	-	-	-	-	-	-	-	380	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene, decahydro-, trans- (RT 3.281)			-	-	18,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene, decahydro-, trans- (RT 3.287)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene, decahydro-, trans- (RT 3.299)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Octadecane, 1-(ethenyloxy)- (RT 9.369)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentatriacontane (RT 11.651)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	4	-	-
Phenanthrene, 2,5-dimethyl- (RT 7.710)			-	-	-	-	-	-	1,300	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene, 2-methyl- (RT 7.216)			-	-	-	-	-	-	-	-	-	-	-	-	400	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene, 3,4,5,6-tetramethyl- (RT 8.239)			-	-	-	-	-	-	-	-	-	-	440	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfur dioxide (RT 5.575)			-	-	-	-	-	-	-	-	-	-	500	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetracontane, 3,5,24-trimethyl- (RT 3.069)			-	-	16,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tricyclo[4.3.1.13,8]undecane, 1-bromo (RT 3.640)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 1.869)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,600	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 10.045)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 11.216)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,600	4	-	-
Unknown (RT 11.457)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.128)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.174)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	460	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.198)			-	-	-	-	-	-	-	-	-	-	-	-	1,500	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.615)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,100	4	-	-
Unknown (RT 12.645)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.980)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	650	4	-	-
Unknown (RT 14.804)			-	-	-	-	-	-	-	-	-	-	-	-	710	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 14.992)			-	-	-	-	-	-	1,200	4	-	-	-	-	-	-	-	-	-	-	430	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 15.768)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,500	4	-	-
Unknown (RT 15.886)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,800	4	-	-
Unknown (RT 15.980)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.051)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.074)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	700	4	-	-
Unknown (RT 16.098)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.145)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	550	4	-	-
Unknown (RT 16.186)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.345)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.480)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 17.033)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.075)			-	-	12,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.445)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,200	4	-	-	-	-
Unknown (RT 2.546)			-	-	-	-	-	-	-	-	4,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.552)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.610)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,200	4	-	-	-	-
Unknown (RT 2.699)			-	-	-	-	610	4	-	-	-	-	-	-	-	-	-	-	-	-	510	4	-	-	320	4	-	-	-	-	-	-	-	-
Unknown (RT 2.704)			-	-	-	-	-	-	-	-	3,600	4	-	-	-	-	-	-	-	-	-	-	850	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.734)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,400	4	-	-	-	-
Unknown (RT 2.751)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,300	4	-	-	-	-
Unknown (RT 2.810)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,000	4	-	-	-	-
Unknown (RT 2.816)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	460	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.828)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.840)			-	-	-	-	520	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.851)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.893)			-	-	-	-	560	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.904)			-	-	-	-	-	-	-	-	2,500	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.957)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.975)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,100	4	-	-	-	-
Unknown (RT 3.010)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,500	4	-	-	-	-
Unknown (RT 3.063)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	640	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.075)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,300	4	-	-	-	-
Unknown (RT 3.081)			-	-	-	-	-	-	-	-	4,600	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.093)			-	-	-	-	430	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.104)			-	-	19,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,900	4	-	-	-	-
Unknown (RT 3.110)			-	-	-	-	-	-	-	-	7,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.116)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.128)			-	-	6,300	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.157)			-	-	-	-	450	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	450	4	-	-	-	-	-	-	-	-
Unknown (RT 3.169)			-	-	7,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.181)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.193)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	450	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.198)			-	-	9,300	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.234)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.275)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	650	4	370	4	-	-	-	-	-	-	-	-
Unknown (RT 3.287)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,100	4	-	-	-	-
Unknown (RT 3.310)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.375)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	420	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.387)			-	-	-	-	-	-	-	-	4,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.410)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,500	4	-	-	-	-
Unknown (RT 3.487)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,800	4	-	-	-	-
Unknown (RT 3.522)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,700	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.540)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.569)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.581)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,100	4	-	-	-	-
Unknown (RT 3.587)			-	-	14,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.593)			-	-	-	-	-	-	-	-	14,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.599)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	24,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.687)			-	-	-	-	-	-	-	-	6,700	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.693)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.722)			-	-	-	-	-	-	-	-	2,600	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.728)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,900	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.792)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,600	4	-	-	-	-
Unknown (RT 3.793)			-	-	-	-	960	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500	4	-	-	-	-	-	-	-	-
Unknown (RT 3.798)			-	-	7,700	4	-	-	-	-	7,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.834)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.869)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.893)			-	-	-	-	-	-	-	-	2,400	4	-	-	-	-	4,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.899)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.934)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,300	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 4.669)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	620	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 4.675)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	340	4	-	-	-	-	-	-	-	-
Unknown (RT 5.210)			-	-	-	-	-	-	-	-	-	-	-	-	500	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 5.622)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,300	4	-	-
Unknown (RT 5.686)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,200	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 5.687)			-	-	-	-	1,900	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,600	4	-	-	-	-	-	-	-	-
Unknown (RT 5.834)			-	-	-	-	-	-	-	-	-	-	-	-	300	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 6.498)			-	-	-	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	780	4	-	-
Unknown (RT 7.210)			-	-	-	-			-	-	-	-	-	-	-	-	-	-	550	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.322)			-	-	-	-			3,900	4	-	-	-	-	400	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.410)			-	-	-	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.475)			-	-	-	-			-	-	-	-	-	-	350	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.504)			-	-	-	-			1,200	4	-	-	-	-	640	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.698)			-	-	-	-	630	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.786)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.892)			-	-	-	-	440	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.898)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,700	4	-	-	-	-	390	4	480	4	-	-	-	-	-	-	-	-
Unknown (RT 7.945)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,000	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.133)			470	4	-	-	880	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	730	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.134)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,200	4	-	-	-	-	-	-	1,300	4
Unknown (RT 8.139)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,500	4	-	-	-	-	760	4	-	-	-	-	-	-
Unknown (RT 8.151)			-	-	-	-	-	-	-	-	-	-	-	-	800	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.369)			-	-	-	-	1,700	4	-	-	-	-	-	-	-	-	2,800	4	-	-	-	-	-	-	400	4	-	-	-	-	-	-	-	-
Unknown (RT 8.398)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	510	4	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 8.833)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	620	4	-	-
Unknown (RT 8.981)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.016)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	440	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.022)			-	-	-	-	-	-	1,300	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.028)			-	-	-	-	-	-	-	-	-	-	-	-	600	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.298)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	430	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.304)			-	-	-	-	-	-	1,300	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.398)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 9.504)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,100	4	-	-
unknown (RT 9.851)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	570	4	-	-
Vinylcyclooctane (RT 3.622)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

TABLE 6
Soil Analytical Results
Pesticides PCBs

	COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB1				15SB2				15SB3				15SB4				15SB5			
				(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(22-24') 12/16/2015 µg/Kg	
				Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Pesticides	4,4' -DDD	3.3	13,000	< 2.0	2.0	< 2.9	2.9	< 2.3	2.3	< 4.1	4.1	< 1.9	1.9	< 2.9	2.9	< 2.2	2.2	< 2.8	2.8	< 2.0	2.0	< 2.0	2.0
	4,4' -DDE	3.3	8,900	< 2.0	2.0	< 2.9	2.9	< 2.3	2.3	< 4.1	4.1	< 1.9	1.9	< 2.9	2.9	< 2.2	2.2	< 2.8	2.8	< 2.0	2.0	< 2.0	2.0
	4,4' -DDT	3.3	7,900	< 2.0	2.0	< 2.9	2.9	< 2.3	2.3	< 4.1	4.1	< 1.9	1.9	< 2.9	2.9	< 2.2	2.2	< 2.8	2.8	< 2.0	2.0	< 2.0	2.0
	a-BHC	20	480	< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	a-Chlordane	94	4,200	< 3.3	3.3	< 4.9	4.9	< 3.9	3.9	< 8.1	8.1	< 3.2	3.2	< 4.9	4.9	< 3.6	3.6	< 4.7	4.7	< 3.3	3.3	< 3.3	3.3
	Aldrin	5	97	< 3.3	3.3	< 4.9	4.9	< 3.9	3.9	< 4.1	4.1	< 3.2	3.2	< 4.9	4.9	< 3.6	3.6	< 4.7	4.7	< 3.3	3.3	< 3.3	3.3
	b-BHC	36	360	< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Chlordane	94	4,200	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	d-BHC	40	100,000	< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Dieldrin	5	200	< 3.3	3.3	< 4.9	4.9	< 3.9	3.9	< 2.4	2.4	< 3.2	3.2	< 4.9	4.9	< 3.6	3.6	< 4.7	4.7	< 3.3	3.3	< 3.3	3.3
	Endosulfan I	2,400	24,000	< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Endosulfan II	2,400	24,000	< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Endosulfan sulfate	2,400	24,000	< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Endrin	14	11,000	< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 8.1	8.1	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Endrin aldehyde			< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Endrin ketone			< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	g-BHC			< 1.3	1.3	< 2.0	2.0	< 1.6	1.6	< 3.2	3.2	< 1.3	1.3	< 2.0	2.0	< 1.5	1.5	< 1.9	1.9	< 1.3	1.3	< 1.3	1.3
	g-Chlordane			< 3.3	3.3	< 4.9	4.9	< 3.9	3.9	< 8.1	8.1	< 3.2	3.2	< 4.9	4.9	< 3.6	3.6	< 4.7	4.7	< 3.3	3.3	< 3.3	3.3
	Heptachlor	42	2,100	< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Heptachlor epoxide			< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Methoxychlor			< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	Toxaphene			< 130	130	< 200	200	< 160	160	< 320	320	< 130	130	< 200	200	< 150	150	< 190	190	< 130	130	< 130	130
Chlorinated Herbicides	2,4,5-T			< 41	41	< 120	120	-	-	-	-	< 41	41	< 120	120	-	-	-	-	< 42	42	< 82	82
	2,4,5-TP (Silvex)			< 41	41	< 120	120	-	-	-	-	< 41	41	< 120	120	-	-	-	-	< 42	42	< 82	82
	2,4-D			< 41	41	< 120	120	-	-	-	-	< 41	41	< 120	120	-	-	-	-	< 42	42	< 82	82
	2,4-DB			< 410	410	< 1200	1,200	-	-	-	-	< 410	410	< 1200	1,200	-	-	-	-	< 420	420	< 820	820
	Dalapon			< 41	41	< 120	120	-	-	-	-	< 41	41	< 120	120	-	-	-	-	< 42	42	< 82	82
	Dicamba			< 82	82	< 230	230	-	-	-	-	< 82	82	< 250	250	-	-	-	-	< 83	83	< 160	160
	Dichloroprop			< 41	41	< 120	120	-	-	-	-	< 41	41	< 120	120	-	-	-	-	< 42	42	< 82	82
	Dinoseb			< 82	82	< 230	230	-	-	-	-	< 82	82	< 250	250	-	-	-	-	< 83	83	< 160	160
Organphosphate Pesticides	Alachlor			< 33	33	< 49	49	-	-	-	-	< 33	33	< 50	50	-	-	-	-		33	< 32	32
	Atrazine			< 33	33	< 49	49	-	-	-	-	< 33	33	< 50	50	-	-	-	-	< 33	33	< 32	32
	Azinphos methyl			< 40	40	< 49	49	-	-	-	-	< 33	33	< 50	50	-	-	-	-	< 33	33	< 32	32
	Diazinon			< 33	33	< 49	49	-	-	-	-	< 33	33	< 50	50	-	-	-	-	< 33	33	< 32	32
	Disulfoton			< 33	33	< 49	49	-	-	-	-	< 33	33	< 50	50	-	-	-	-	< 33	33	< 32	32
	Malathion			< 33	33	< 49	49	-	-	-	-	< 33	33	< 50	50	-	-	-	-	< 33	33	< 32	32
	Simazine			< 33	33	< 49	49	-	-	-	-	< 33	33	< 50	50	-	-	-	-	< 33	33	< 32	32
PCBs	PCB-1016	100	1,000	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	PCB-1221	100	1,000	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	PCB-1232	100	1,000	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	PCB-1242	100	1,000	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	PCB-1248	100	1,000	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	PCB-1254	100	1,000	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	PCB-1260	100	1,000	**58**	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	PCB-1262	100	1,000	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	PCB-1268	100	1,000	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

TABLE 6
Soil Analytical Results
Pesticides PCBs

	COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB6				15SB7				15SB8				15SB9				15SB10				Duplicate	
				(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		12/17/2015 µg/Kg	
				Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Pesticides	4,4' -DDD	3.3	13,000	< 2.3	2.3	< 3.1	3.1	< 2.2	2.2	< 2.7	2.7	< 3.3	3.3	< 2.9	2.9	< 2.3	2.3	< 2.2	2.2	< 2.2	2.2	< 3.2	3.2	< 2.4	2.4
	4,4' -DDE	3.3	8,900	< 2.3	2.3	< 3.1	3.1	< 2.2	2.2	< 2.7	2.7	< 2.2	2.2	< 2.9	2.9	< 2.3	2.3	< 2.2	2.2	< 2.2	2.2	< 3.2	3.2	< 2.4	2.4
	4,4' -DDT	3.3	7,900	< 2.3	2.3	< 3.1	3.1	< 2.2	2.2	< 2.7	2.7	< 2.2	2.2	< 2.9	2.9	< 3.0	3.0	< 2.2	2.2	< 2.2	2.2	< 3.2	3.2	**7.1**	2.4
	a-BHC	20	480	< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	a-Chlordane	94	4,200	< 3.9	3.9	< 5.1	5.1	< 3.7	3.7	< 4.5	4.5	< 3.7	3.7	< 4.8	4.8	< 3.8	3.8	< 3.7	3.7	< 3.7	3.7	< 6.4	6.4	**10**	4.1
	Aldrin	5	97	< 3.9	3.9	< 5.1	5.1	< 3.7	3.7	< 4.5	4.5	< 3.7	3.7	< 4.8	4.8	< 3.8	3.8	< 3.7	3.7	< 3.7	3.7	< 3.2	3.2	< 4.1	4.1
	b-BHC	36	360	< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Chlordane	94	4,200	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	**55**	41
	d-BHC	40	100,000	< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Dieldrin	5	200	< 3.9	3.9	< 5.1	5.1	< 3.7	3.7	< 4.5	4.5	< 3.7	3.7	< 4.8	4.8	< 3.8	3.8	< 3.7	3.7	< 3.7	3.7	< 1.9	1.9	< 4.1	4.1
	Endosulfan I	2,400	24,000	< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Endosulfan II	2,400	24,000	< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Endosulfan sulfate	2,400	24,000	< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Endrin	14	11,000	< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Endrin aldehyde			< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Endrin ketone			< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	g-BHC			< 1.6	1.6	< 2.1	2.1	< 1.5	1.5	< 1.8	1.8	< 1.5	1.5	< 1.9	1.9	< 1.5	1.5	< 1.5	1.5	< 1.5	1.5	< 2.5	2.5	< 1.6	1.6
	g-Chlordane			< 3.9	3.9	< 5.1	5.1	< 3.7	3.7	< 4.5	4.5	< 3.7	3.7	< 4.8	4.8	< 3.8	3.8	< 3.7	3.7	< 3.7	3.7	< 6.4	6.4	**6.8**	4.1
	Heptachlor	42	2,100	< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Heptachlor epoxide			< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Methoxychlor			< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	Toxaphene			< 160	160	< 210	210	< 150	150	< 180	180	< 150	150	< 190	190	< 150	150	< 150	150	< 150	150	< 250	250	< 160	160
PCBs	PCB-1016	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	PCB-1221	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	PCB-1232	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	PCB-1242	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	PCB-1248	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	PCB-1254	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	PCB-1260	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	PCB-1262	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	PCB-1268	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

TABLE 7
Soil Analytical Results
Metals

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB1				15SB2				15SB3				15SB4				15SB5			
			(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(22-24') 12/16/2015 µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Aluminum			5,830	31	857	3.2	8,420	41	18,300	72	6,170	34	1,650	3.5	7,470	35	7,150	48	7,140	31	6,360	30
Antimony			< 1.5	1.5	< 1.6	1.6	2	2.0	< 3.6	3.6	2.5	1.7	< 1.7	1.7	10.1	1.8	< 2.4	2.4	< 1.5	1.5	< 1.5	1.5
Arsenic	13	16	4.5	0.6	1.4	0.6	8.7	8.2	17.7	1.4	13.4	0.7	1.5	0.7	8.8	0.7	18.1	1.0	6.9	0.6	5.3	0.6
Barium	350	350	93	0.6	12.7	0.6	303	0.8	96.2	1.4	743	0.7	16.1	0.7	111	0.7	183	1.0	136	0.6	50.3	0.6
Beryllium	7.2	14	0.25	0.25	0.24	0.26	0.43	0.33	0.67	0.57	0.53	0.27	0.22	0.28	0.19	0.28	0.44	0.39	0.55	0.25	0.45	0.24
Cadmium	2.5	2.5	0.85	0.31	0.21	0.32	1.56	0.41	< 0.72	0.72	1.28	0.34	0.22	0.35	1.19	0.35	0.63	0.48	0.71	0.31	0.42	0.30
Calcium			11,200	31	3,210	3.2	49,300	41	5,690	7.2	14,100	34	3,730	3.5	8,300	3.5	7,480	4.8	2,270	3.1	1,190	3.0
Chromium	30	180	87.7	0.31	2.76	0.32	23.7	4.1	26.3	0.72	19	0.34	2.83	0.35	20.8	0.35	18.5	0.48	16.9	0.31	16.2	0.30
Cobalt			6.31	0.31	0.94	0.32	7.3	4.1	10.7	0.72	7.15	0.34	1.83	0.35	9.03	0.35	9.21	0.48	7.73	0.31	7.95	0.30
Copper	50	270	52.4	0.31	5.75	0.32	97.9	4.1	28.7	0.72	938	3.4	3.78	0.35	63.9	0.35	89.6	0.48	50.4	0.31	13.5	0.30
Iron			14,200	31	2,380	3.2	16,900	41	28,300	72	26,800	34	3,880	3.5	43,000	35	19,300	48	29,400	31	21,900	30
Lead	63	400	228	6.2	11.8	0.6	776	8.2	103	1.4	2,790	63	16.4	0.7	162	7.0	512	9.7	190	6.2	8.8	0.6
Magnesium			1,650	3.1	1,540	3.2	3,120	41	3,570	7.2	686	3.4	1,300	3.5	1,760	3.5	1,480	4.8	1,730	3.1	2,960	3.0
Manganese	1,600	2,000	285	3.1	30.2	0.32	285	4.1	223	0.72	249	3.4	59.8	0.35	323	3.5	284	4.8	337	3.1	72.7	0.30
Mercury	0.18	0.81	0.72	0.03	0.03	0.03	1	0.03	0.4	0.06	2.75	0.24	0.55	0.03	0.16	0.03	3.35	0.36	0.92	0.02	< 0.02	0.02
Nickel	30	140	138	3.1	1.56	0.32	16.6	4.1	18.8	0.72	15.5	0.34	2.8	0.35	14.3	0.35	17.8	0.48	14.1	0.31	14.1	0.30
Potassium			1,070	6	138	6	1,870	8	1,930	140	903	7	327	7	1,780	70	1,190	10	1,160	6	1,610	6
Selenium	3.9	36	< 1.2	1.2	< 1.3	1.3	< 1.6	1.6	< 2.9	2.9	< 1.4	1.4	< 1.4	1.4	< 1.4	1.4	< 1.9	1.9	< 1.2	1.2	< 1.2	1.2
Silver	2	36	< 0.31	0.31	< 0.32	0.32	< 0.41	0.41	< 0.72	0.72	< 0.34	0.34	< 0.35	0.35	< 0.35	0.35	< 0.48	0.48	< 0.31	0.31	< 0.30	0.30
Sodium			296	6	297	6	931	8	1,180	14	362	68	474	7	788	7	416	10	200	6	142	6
Thallium			< 1.2	1.2	< 1.3	1.3	< 1.6	1.6	< 2.9	2.9	< 1.4	1.4	< 1.4	1.4	< 1.4	1.4	< 1.9	1.9	< 1.2	1.2	< 1.2	1.2
Vanadium			21.3	0.3	2.5	0.3	23.5	4.1	35.9	0.7	27.4	0.3	4.8	0.3	23.9	0.4	30.6	0.5	23.6	0.3	24.6	0.3
Zinc	109	2,200	577	6.2	8	0.6	300	8.2	114	1.4	995	6.8	8.9	0.7	184	7.0	359	9.7	177	6.2	42.5	0.6

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

TABLE 7
Soil Analytical Results
Metals

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB6				15SB7				15SB8				15SB9				15SB10				Duplicate	
			(0-2') 12/17/2015 mg/Kg		(18-20') 12/17/2015 mg/Kg		(0-2') 12/17/2015 mg/Kg		(18-20') 12/17/2015 mg/Kg		(0-2') 12/17/2015 mg/Kg		(18-20') 12/17/2015 mg/Kg		(0-2') 12/17/2015 mg/Kg		(18-20') 12/17/2015 mg/Kg		(0-2') 12/17/2015 mg/Kg		(18-20') 12/17/2015 mg/Kg		12/17/2015 mg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Aluminum			4,460	40	3,110	51	2,830	35	4,440	40	3,600	35	5,620	50	4,170	36	2,340	36	2,210	38	7,730	63	4,800	39
Antimony			15.6	2.0	< 2.5	2.5	8.3	1.8	2.8	2.0	7.1	1.8	< 2.5	2.5	3.4	1.8	< 1.8	1.8	6.9	1.9	< 3.2	3.2	4.7	1.9
Arsenic	13	16	14.1	0.8	31.5	1.0	10	0.7	17.9	0.8	11.1	0.7	4.1	1.0	15.2	0.7	27	0.7	10	0.8	35.8	1.3	51.7	0.8
Barium	350	350	256	0.8	818	1.0	134	0.7	259	0.8	206	0.7	88.9	1.0	179	0.7	62.3	0.7	74.1	0.8	151	1.3	333	0.8
Beryllium	7.2	14	0.25	0.32	0.42	0.41	0.15	0.28	0.39	0.32	0.16	0.28	0.49	0.40	0.26	0.29	0.25	0.29	< 0.30	0.30	0.43	0.51	0.38	0.31
Cadmium	2.5	2.5	1.55	0.40	0.57	0.51	1.68	0.35	0.57	0.40	1.8	0.35	0.5	0.50	1.46	0.36	1.39	0.36	2.95	0.38	1.22	0.63	1.07	0.39
Calcium			11,400	40	3,660	5.1	8,180	3.5	8,600	4.0	3,100	3.5	2,980	5.0	11,800	36	7,440	3.6	3,290	3.8	21,800	63	12,100	39
Chromium	30	180	15.2	0.40	27.4	0.51	10.7	0.35	20.1	0.40	19.3	0.35	29.1	0.50	20.7	0.36	12.3	0.36	10	0.38	24.7	0.63	75.4	0.39
Cobalt			9.9	0.40	11.2	0.51	9.64	0.35	7.14	0.40	12.4	0.35	11.5	0.50	8.92	0.36	6.89	0.36	14.9	0.38	7.98	0.63	8.09	0.39
Copper	50	270	95.2	0.40	44.7	0.51	62.4	0.35	119	0.40	59.2	0.35	31.4	0.50	66.8	0.36	18.4	0.36	60	0.38	77	0.63	327	3.9
Iron			35,100	40	6,780	51	37,500	35	10,700	40	42,800	35	15,900	50	31,700	36	31,300	36	74,400	38	18,400	63	14,600	39
Lead	63	400	733	7.9	122	10	172	7.0	529	7.9	317	7.0	134	1.0	612	7.3	106	0.7	213	7.6	268	13	2,470	77
Magnesium			2,240	4.0	1,190	5.1	1,370	3.5	1,310	4.0	1,150	3.5	3,130	5.0	1,550	3.6	856	3.6	645	3.8	2,120	6.3	1,070	3.9
Manganese	1,600	2,000	364	4.0	92.3	5.1	193	3.5	149	4.0	468	3.5	261	5.0	189	3.6	282	3.6	290	3.8	184	0.63	175	3.9
Mercury	0.18	0.81	0.45	0.03	14	0.41	3.04	0.27	11.3	0.35	0.21	0.03	0.92	0.04	4.47	0.30	0.14	0.03	0.12	0.03	12.1	0.48	5.3	0.31
Nickel	30	140	17.6	0.40	65	0.51	14.8	0.35	13.6	0.40	20.5	0.35	17.5	0.50	17.8	0.36	9.12	0.36	22.1	0.38	17.1	0.63	18.8	0.39
Potassium			1,510	8	1,300	10	1,550	7	1,300	8	1,230	7	3,050	10	1,210	7	638	7	1,490	8	1,310	13	1,200	8
Selenium	3.9	36	< 1.6	1.6	< 2.0	2.0	< 1.4	1.4	< 1.6	1.6	< 1.4	1.4	< 2.0	2.0	< 1.5	1.5	< 1.4	1.4	< 1.5	1.5	< 2.5	2.5	< 1.5	1.5
Silver	2	36	< 0.40	0.40	< 0.51	0.51	< 0.35	0.35	< 0.40	0.40	< 0.35	0.35	< 0.50	0.50	< 0.36	0.36	< 0.36	0.36	< 0.38	0.38	< 0.63	0.63	< 0.39	0.39
Sodium			826	8	474	10	833	7	406	8	500	7	192	10	907	7	242	7	759	8	809	13	643	8
Thallium			< 1.6	1.6	< 2.0	2.0	< 1.4	1.4	< 1.6	1.6	< 1.4	1.4	< 2.0	2.0	< 1.5	1.5	< 1.4	1.4	< 1.5	1.5	< 2.5	2.5	< 1.5	1.5
Vanadium			19.4	0.4	28.6	0.5	17	0.4	25.1	0.4	24.4	0.4	40	0.5	15.8	0.4	63.9	0.4	16.6	0.4	30.2	0.6	30.3	0.4
Zinc	109	2,200	768	7.9	197	1.0	150	7.0	217	7.9	222	7.0	136	1.0	170	7.3	21.3	0.7	112	0.8	277	13	424	7.7

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

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Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

Table 8
Ground Water Analytical Results
Volatile Organic Compounds

Compound	NYSDEC Groundwater Quality Standards µg/L	15MW1 12/22/2015 µg/L		15MW2 12/22/2015 µg/L		15MW3 12/22/2015 µg/L		15MW4 12/22/2015 µg/L		15MW5 12/22/2015 µg/L		15MW6 12/23/2015 µg/L		15MW7 12/23/2015 µg/L		15MW8 12/23/2015 µg/L		Duplicate 12/22/2015 µg/L	
		Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
1,1,1,2-Tetrachlorothane	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,1,1-Trichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
1,1,2,2-Tetrachloroethane	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,1,2-Trichloroethane	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
1,1-Dichloroethene	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,1-Dichloropropene		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,2,3-Trichlorobenzene		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 20	20	< 2.0	2.0	< 1.0	1.0
1,2,3-Trichloropropane	0.04	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,2,4-Trichlorobenzene		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 20	20	< 2.0	2.0	< 1.0	1.0
1,2,4-Trimethylbenzene	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	**39**	20	< 2.0	2.0	< 1.0	1.0
1,2-Dibromo-3-chloropropane	0.04	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 2.5	2.5	< 2.0	2.0	< 10	10	< 2.0	2.0	< 1.0	1.0
1,2-Dibromoethane		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,2-Dichlorobenzene	5	**0.99**	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 2.5	2.5	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,2-Dichloroethane	0.6	< 0.60	0.60	< 0.5	0.5	< 0.60	0.60	< 0.5	0.5	< 1.0	1.0	< 0.5	0.5	< 5.0	5.0	< 0.5	0.5	< 0.60	0.60
1,2-Dichloropropane	0.94	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0
1,3,5-Trimethylbenzene	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,3-Dichlorobenzene		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 2.5	2.5	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,3-Dichloropropane	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,4-Dichlorobenzene	5	**0.91**	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
2,2-Dichloropropane	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
2-Chlorotoluene	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
2-Hexanone (Methyl Butyl Ketone)		< 2.5	2.5	< 5.0	5.0	< 2.5	2.5	< 5.0	5.0	< 13	13	< 5.0	5.0	< 50	50	< 5.0	5.0	< 2.5	2.5
2-Isopropyltoluene	5	**7**	1.0	**7.3**	2.0	< 1.0	1.0	**28**	2.0	**17**	5.0	**0.6**	2.0	**88**	20	**11**	2.0	< 1.0	1.0
4-Chlorotoluene	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
4-Methyl-2-Pentanone		< 2.5	2.5	< 5.0	5.0	< 2.5	2.5	< 5.0	5.0	< 13	13	< 5.0	5.0	< 50	50	< 5.0	5.0	< 2.5	2.5
Acetone		< 5.0	5.0	**59**	10	**4.5**	5.0	**7.8**	10	< 25	25	< 10	10	< 50	50	**7.3**	10	**3**	5.0
Acrolein		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 13	13	< 5.0	5.0	< 50	50	< 5.0	5.0	< 5.0	5.0
Acrylonitrile	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 50	50	< 5.0	5.0	< 5.0	5.0
Benzene	1	**0.28**	0.70	< 0.5	0.5	< 0.70	0.70	< 0.5	0.5	< 1.0	1.0	< 0.5	0.5	< 5.0	5.0	< 0.5	0.5	< 0.70	0.70
Bromobenzene	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Bromochloromethane	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Bromodichloromethane		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 20	20	< 2.0	2.0	< 1.0	1.0
Bromoform		< 5.0	5.0	< 10	10	< 5.0	5.0	< 10	10	< 25	25	< 10	10	< 5.0	5.0	< 10	10	< 5.0	5.0
Bromomethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Carbon Disulfide	60	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 20	20	< 2.0	2.0	< 1.0	1.0
Carbon tetrachloride	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Chlorobenzene	5	**8.1**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroethane	5	< 5.0	5.0	**56**	10	< 5.0	5.0	**130**	25	**23**	25	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroform	7	< 5.0	5.0	< 7.0	7.0	< 5.0	5.0	< 7.0	7.0	< 5.0	5.0	< 7.0	7.0	< 5.0	5.0	< 7.0	7.0	< 5.0	5.0
Chloromethane	60	< 5.0	5.0	**0.67**	5.0	**0.46**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	**0.31**	5.0
cis-1,2-Dichloroethene	5	**13**	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
cis-1,3-Dichloropropene		< 0.40	0.40	< 0.4	0.4	< 0.40	0.40	< 0.4	0.4	< 1.0	1.0	< 0.4	0.4	< 5.0	5.0	< 0.4	0.4	< 0.40	0.40
Dibromochloromethane		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 20	20	< 2.0	2.0	< 1.0	1.0
Dibromomethane	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Dichlorodifluoromethane	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Ethylbenzene	5	**1.8**	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Hexachlorobutadiene	0.5	< 0.50	0.50	< 0.5	0.5	< 0.50	0.50	< 0.5	0.5	< 1.0	1.0	< 0.5	0.5	< 4.0	4.0	< 0.5	0.5	< 0.50	0.50
Isopropylbenzene	5	**8.5**	1.0	**1.7**	2.0	< 1.0	1.0	**6.8**	2.0	**25**	5.0	< 2.0	2.0	**100**	20	**37**	2.0	< 1.0	1.0
m&p-Xylenes	5	**0.9**	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 20	20	< 2.0	2.0	< 1.0	1.0
Methyl Ethyl Ketone (2-Butanone)		< 2.5	2.5	< 5.0	5.0	**4.5**	2.5	< 5.0	5.0	< 13	13	< 5.0	5.0	< 50	50	**5.8**	5.0	**2.7**	2.5
Methyl t-butyl ether (MTBE)	10	**1.2**	1.0	**1.6**	2.0	**2.2**	1.0	**0.92**	2.0	**3.7**	5.0	< 2.0	2.0	< 20	20	**5.7**	2.0	**2.1**	1.0
Methylene chloride	5	< 3.0	3.0	< 5.0	5.0	< 3.0	3.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 20	20	< 5.0	5.0	< 3.0	3.0
Naphthalene	10	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 20	20	< 2.0	2.0	< 1.0	1.0
n-Butylbenzene	5	**5**	1.0	**1.5**	2.0	< 1.0	1.0	**5.4**	2.0	**3.8**	5.0	< 2.0	2.0	**97**	20	**11**	2.0	< 1.0	1.0
n-Propylbenzene	5	**6.2**	1.0	**0.66**	2.0	< 1.0	1.0	**2.8**	2.0	**23**	5.0	< 2.0	2.0	**170**	20	**59**	2.0	< 1.0	1.0
o-Xylene	5	**0.39**	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
p-Isopropyltoluene		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
sec-Butylbenzene	5	**15**	1.0	**12**	2.0	**0.88**	1.0	**36**	2.0	**35**	5.0	**1**	2.0	**210**	20	**24**	2.0	**0.69**	1.0
Styrene	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
tert-Butylbenzene	5	**6**	1.0	**6.5**	2.0	**1.8**	1.0	**15**	2.0	**12**	5.0	< 2.0	2.0	**39**	20	**5.7**	2.0	**1.6**	1.0
Tetrachloroethene	5	**0.32**	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Tetrahydrofuran (THF)		< 5.0	5.0	< 10	10	< 5.0	5.0	< 10	10	< 25	25	< 10	10	< 50	50	< 10	10	< 5.0	5.0
Toluene	5	**1.9**	1.0	**1.2**	2.0	**1.9**	1.0	**2**	2.0	**1.6**	5.0	**0.99**	2.0	< 5.0	5.0	**1.7**	2.0	**1.4**	1.0
trans-1,2-Dichloroethene	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
trans-1,3-Dichloropropene	0.4	< 0.40	0.40	< 0.4	0.4	< 0.40	0.40	< 0.4	0.4	< 1.0	1.0	< 0.4	0.4	< 5.0	5.0	< 0.4	0.4	< 0.40	0.40
trans-1,4-dichloro-2-butene	5	< 2.5	2.5	< 5.0	5.0	< 2.5	2.5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 50	50	< 5.0	5.0	< 2.5	2.5
Trichloroethene	5	**3.5**	1.0	**0.54**	2.0	< 1.0	1.0	**1.2**	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Trichlorofluoromethane	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Trichlorotrifluoroethane		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Vinyl Chloride	2	**13**	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 2.0	2.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0

Notes:
RL- Reporting Limit
Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

65 Eckford Street
Brooklyn, New York

TABLE 9
Groundwater Analytical Results
Semi-Volatile Organic Compounds

Compound	NYSDEC Groundwater Quality Standards µg/L	15MW1 12/22/2015 µg/L		15MW2 12/22/2015 µg/L		15MW3 12/22/2015 µg/L		15MW4 12/22/2015 µg/L		15MW5 12/22/2015 µg/L		15MW6 12/23/2015 µg/L		15MW7 12/23/2015 µg/L		15MW8 12/23/2015 µg/L		Duplicate 12/22/2015 µg/L	
		Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
1,2,4-Trichlorobenzene		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
1,2-Dichlorobenzene		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.1	1.1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Diphenylhydrazine		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
1,3-Dichlorobenzene	3	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.1	1.1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-Dichlorobenzene		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.1	1.1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2,4,5-Trichlorophenol	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2,4,6-Trichlorophenol	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2,4-Dichlorophenol		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2,4-Dimethylphenol		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2,4-Dinitrophenol	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2,4-Dinitrotoluene	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
2,6-Dinitrotoluene	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
2-Chloronaphthalene	10	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
2-Chlorophenol	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Methylnaphthalene		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
2-Methylphenol (o-cresol)	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Nitroaniline	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
2-Nitrophenol	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
3&4-Methylphenol (m&p-cresol)		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.1	1.1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
3,3'-Dichlorobenzidine	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
3-Nitroaniline	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
4,6-Dinitro-2-methylphenol	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Bromophenyl phenyl ether		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
4-Chloro-3-methylphenol	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Chloroaniline	5	< 3.5	3.5	< 3.5	3.5	< 3.5	3.5	< 3.7	3.7	< 3.5	3.5	< 3.5	3.5	< 3.5	3.5	< 3.5	3.5	< 3.5	3.5
4-Chlorophenyl phenyl ether		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
4-Nitroaniline	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
4-Nitrophenol		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Acetophenone		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Aniline	5	< 3.5	3.5	< 3.5	3.5	< 3.5	3.5	< 3.7	3.7	< 3.5	3.5	< 3.5	3.5	< 3.5	3.5	< 3.5	3.5	< 3.5	3.5
Anthracene	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Benzidine	5	< 4.5	4.5	< 4.5	4.5	< 4.5	4.5	< 4.7	4.7	< 4.5	4.5	< 4.5	4.5	< 4.5	4.5	< 4.5	4.5	< 4.5	4.5
Benzoic acid		< 25	25	< 25	25	< 25	25	< 26	26	< 25	25	< 25	25	< 25	25	< 25	25	< 25	25
Benzyl butyl phthalate	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Bis(2-chloroethoxy)methane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Bis(2-chloroethyl)ether	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bis(2-chloroisopropyl)ether		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Carbazole		< 25	25	< 25	25	< 25	25	< 26	26	< 25	25	< 25	25	< 25	25	< 25	25	< 25	25
Dibenzofuran		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Diethyl phthalate	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Dimethylphthalate	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Di-n-butylphthalate	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Di-n-octylphthalate	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Fluoranthene	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	**1.8**	5.3	< 5.0	5.0	**4.4**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Fluorene	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	**1.7**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Hexachlorobutadiene	0.5	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.42	0.42	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
Hexachlorocyclopentadiene	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Isophorone	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Naphthalene	10	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Nitrobenzene	0.4	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.11	0.11	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10
N-Nitrosodimethylamine		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.1	1.1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
N-Nitrosodi-n-propylamine		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
N-Nitrosodiphenylamine	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Phenol	50	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Pyrene	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	**2.1**	5.3	< 5.0	5.0	**3.8**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
1,2,4,5-Tetrachlorobenzene		< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.53	0.53	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
Acenaphthene	20	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	**2.8**	5.3	< 5.0	5.0	**2.3**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Acenaphthylene		< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	**0.25**	0.11	< 0.10	0.10	**0.33**	0.10	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10
Benz(a)anthracene	0.002	**0.11**	0.02	**0.04**	0.02	**0.11**	0.02	**0.58**	0.02	**0.03**	0.02	**1.9**	0.02	**0.24**	0.02	**0.03**	0.02	**0.08**	0.02
Benzo(a)pyrene		**0.07**	0.02	**0.03**	0.02	**0.08**	0.02	**0.57**	0.02	< 0.02	0.02	**1.7**	0.02	**0.27**	0.02	< 0.02	0.02	**0.05**	0.02
Benzo(b)fluoranthene	0.002	**0.06**	0.02	**0.03**	0.02	**0.07**	0.02	**0.44**	0.02	< 0.02	0.02	**1.4**	0.02	**0.25**	0.02	< 0.02	0.02	**0.04**	0.02
Benzo(ghi)perylene		**0.03**	0.02	< 0.02	0.02	**0.04**	0.02	**0.26**	0.02	< 0.02	0.02	**0.7**	0.02	**0.15**	0.02	< 0.02	0.02	**0.03**	0.02
Benzo(k)fluoranthene	0.002	**0.06**	0.02	**0.02**	0.02	**0.06**	0.02	**0.4**	0.02	< 0.02	0.02	**1.4**	0.02	**0.2**	0.02	< 0.02	0.02	**0.04**	0.02
Bis(2-ethylhexyl)phthalate	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.1	1.1	< 1.0	1.0	< 1.0	1.0	**2.5**	1.0	< 1.0	1.0	< 1.0	1.0
Chrysene	0.002	**0.11**	0.02	**0.04**	0.02	**0.1**	0.02	**0.54**	0.02	< 0.02	0.02	**1.7**	0.02	**0.23**	0.02	< 0.02	0.02	**0.06**	0.02
Dibenz(a,h)anthracene		< 0.02	0.02	< 0.02	0.02	< 0.02	0.02	**0.06**	0.02	< 0.02	0.02	**0.2**	0.02	**0.04**	0.02	< 0.02	0.02	< 0.02	0.02
Hexachlorobenzene	0.04	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02
Hexachloroethane	5	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.53	0.53	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
Indeno(1,2,3-cd)pyrene	0.002	**0.03**	0.02	< 0.02	0.02	**0.04**	0.02	**0.21**	0.02	< 0.02	0.02	**0.73**	0.02	**0.14**	0.02	< 0.02	0.02	**0.02**	0.02
Pentachloronitrobenzene		< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.11	0.11	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10
Pentachlorophenol	1	< 0.80	0.80	< 0.80	0.80	< 0.80	0.80	< 0.84	0.84	< 0.80	0.80	< 0.80	0.80	< 0.80	0.80	< 0.80	0.80	< 0.80	0.80
Phenanthrene	50	**0.8**	0.10	< 0.10	0.10	**0.97**	0.10	**2.1**	0.11	< 0.10	0.10	**6**	0.10	**0.45**	0.10	**0.11**	0.10	**1**	0.10
Pyridine	50	< 10	10	< 10	10	< 10	10	< 11	11	< 10	10	< 10	10	< 10	10	< 10	10	< 10	10

Notes:

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

TABLE 10
Groundwater Analytical Results
Pesticides/PCBs

	Compound	NYSDEC Groundwater Quality Standards µg/L	15MW1 12/22/2015 µg/L		15MW2 12/22/2015 µg/L		15MW3 12/22/2015 µg/L		15MW4 12/22/2015 µg/L		15MW5 12/22/2015 µg/L		15MW6 12/23/2015 µg/L		15MW7 12/23/2015 µg/L		15MW8 12/23/2015 µg/L		Duplicate 12/22/2015 µg/L	
			Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
PCBs	**PCB-1016**	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
	PCB-1221	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
	PCB-1232	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
	PCB-1242	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
	PCB-1248	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
	PCB-1254	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
	PCB-1260	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
	PCB-1262	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
	PCB-1268	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
Pesticides	**4,4-DDD**	0.3	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	**0.014**	0.010	< 0.010	0.010	< 0.010	0.010	< 0.050	0.050	< 0.010	0.010	< 0.010	0.010
	4,4-DDE	0.2	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.012	0.012	< 0.010	0.010	< 0.010	0.010
	4,4-DDT	0.11	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.012	0.012	< 0.010	0.010	< 0.010	0.010
	a-BHC	0.94	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.012	0.012	< 0.005	0.005	< 0.005	0.005
	a-Chlordane		< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.050	0.050	< 0.010	0.010	< 0.010	0.010
	Alachlor		< 0.075	0.075	< 0.075	0.075	< 0.075	0.075	< 0.075	0.075	< 0.075	0.075	< 0.075	0.075	< 0.38	0.38	< 0.075	0.075	< 0.075	0.075
	Aldrin		< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.003	0.003	< 0.003	0.003	< 0.002	0.002	< 0.008	0.008	< 0.003	0.003	< 0.002	0.002
	b-BHC	0.04	< 0.005	0.005	< 0.005	0.005	< 0.020	0.020	< 0.015	0.015	< 0.010	0.010	< 0.005	0.005	< 0.012	0.012	< 0.005	0.005	< 0.005	0.005
	Chlordane	0.05	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.25	0.25	< 0.050	0.050	< 0.050	0.050
	d-BHC	0.04	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.025	0.025	< 0.005	0.005	< 0.005	0.005
	Dieldrin	0.004	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.004	0.004	< 0.002	0.002	< 0.003	0.003	< 0.008	0.008	< 0.002	0.002	< 0.002	0.002
	Endosulfan I		< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.050	0.050	< 0.010	0.010	< 0.010	0.010
	Endosulfan II		< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.050	0.050	< 0.010	0.010	< 0.010	0.010
	Endosulfan Sulfate		< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.050	0.050	< 0.010	0.010	< 0.010	0.010
	Endrin		< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.025	0.025	< 0.010	0.010	< 0.010	0.010
	Endrin aldehyde	5	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.050	0.050	< 0.010	0.010	< 0.010	0.010
	Endrin ketone		< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.060	0.060	< 0.010	0.010	< 0.010	0.010
	gamma-BHC	0.05	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.010	0.010	< 0.050	0.050	< 0.005	0.005	< 0.005	0.005
	g-Chlordane		< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.050	0.050	< 0.010	0.010	< 0.010	0.010
	Heptachlor	0.04	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.025	0.025	< 0.010	0.010	< 0.010	0.010
	Heptachlor epoxide	0.03	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.025	0.025	< 0.010	0.010	< 0.010	0.010
	Methoxychlor	35	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.50	0.50	< 0.10	0.10	< 0.10	0.10
	Toxaphene		< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.25	0.25	< 0.20	0.20	< 0.25	0.25	< 1.3	1.3	< 0.25	0.25	< 0.20	0.20

Notes:

RL- Reporting limit

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

Table 11
Groundwater Analytical Results
TAL Filtered Metals

Compound	NYSDEC Groundwater Quality Standards	15MW1		15MW2		15MW3		15MW4		15MW5		15MW6		15MW7		15MW8		Duplicate	
		12/22/2015		12/22/2015		12/22/2015		12/22/2015		12/22/2015		12/23/2015		12/23/2015		12/23/2015		12/22/2015	
	mg/L	mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L	
Total Metals		Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
Aluminum	NS	0.22	0.010	1.02	0.010	0.282	0.010	1.28	0.010	0.131	0.010	8.62	0.010	1.64	0.010	0.093	0.010	0.235	0.010
Antimony	0.003	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002
Arsenic	0.025	0.009	0.004	0.045	0.004	0.004	0.004	0.07	0.004	0.162	0.004	0.03	0.004	0.027	0.004	0.028	0.004	0.005	0.004
Barium	1	0.35	0.010	0.46	0.010	0.395	0.010	0.426	0.010	0.357	0.010	0.772	0.010	0.547	0.010	0.304	0.010	0.398	0.010
Beryllium	0.003	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001
Cadmium	0.005	< 0.004	0.004	0.001	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	0.001	0.004	0.001	0.004	< 0.004	0.004	< 0.004	0.004
Calcium	NS	158	0.10	170	0.10	257	0.10	162	0.10	136	0.010	204	0.10	156	0.10	122	0.010	268	0.10
Chromium	0.05	0.001	0.001	0.003	0.001	< 0.001	0.001	0.005	0.001	< 0.001	0.001	0.021	0.001	0.005	0.001	< 0.001	0.001	< 0.001	0.001
Cobalt	NS	< 0.005	0.005	0.001	0.005	< 0.005	0.005	0.002	0.005	0.003	0.005	0.009	0.005	0.005	0.005	0.001	0.005	< 0.005	0.005
Copper	0.2	0.002	0.005	0.04	0.005	0.003	0.005	0.03	0.005	< 0.005	0.005	0.225	0.005	0.018	0.005	< 0.005	0.005	0.002	0.005
Iron	0.5	21.2	0.01	34.2	0.01	5.87	0.01	28.5	0.01	25.2	0.01	50.6	0.01	35.9	0.01	25.3	0.01	5.98	0.01
Lead	0.025	0.03	0.002	0.031	0.002	0.022	0.002	0.062	0.002	0.008	0.002	0.724	0.002	0.168	0.002	0.01	0.002	0.019	0.002
Magnesium	35	12.7	0.01	24.4	0.01	19.6	0.01	26.8	0.01	23.3	0.01	32.2	0.01	25	0.01	23.4	0.01	19.8	0.01
Manganese	0.3	0.882	0.005	0.852	0.005	1.21	0.005	1.44	0.005	0.57	0.005	0.558	0.005	0.53	0.005	0.278	0.005	1.22	0.005
Mercury	0.0007	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002
Nickel	0.1	0.003	0.004	0.004	0.004	0.003	0.004	0.008	0.004	0.005	0.004	0.016	0.004	0.004	0.004	0.002	0.004	0.002	0.004
Potassium	NS	15.4	0.1	30.7	0.1	28.1	0.1	33.3	0.1	28.9	0.1	41.3	0.1	33.8	0.1	25.2	0.1	28.4	0.1
Selenium	0.01	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	0.001	0.002
Silver	0.05	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	0.001	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005
Sodium	2	112	1.0	175	1.0	212	1.0	145	1.0	142	1.0	159	1.0	109	1.0	77	1.0	230	1.0
Thallium	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005
Vanadium	NS	< 0.010	0.010	0.003	0.010	0.002	0.010	0.003	0.010	0.001	0.010	0.025	0.010	0.005	0.010	< 0.010	0.010	< 0.010	0.010
Zinc	2	0.023	0.010	0.031	0.010	0.059	0.010	0.073	0.010	0.007	0.010	0.374	0.010	0.14	0.010	0.008	0.010	0.055	0.010

Notes:
RL- Reporting limit
NS - No Standard
Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

Table 12
Groundwater Analytical Results
Dissolved Metals

Compound Dissolved Metals	NYSDEC Groundwater Quality Standards mg/L	15MW1 12/22/2015 mg/L		15MW2 12/22/2015 mg/L		15MW3 12/22/2015 mg/L		15MW4 12/22/2015 mg/L		15MW5 12/22/2015 mg/L		15MW6 12/23/2015 mg/L		15MW7 12/23/2015 mg/L		15MW8 12/23/2015 mg/L		Duplicate 12/22/2015 mg/L	
		Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
Aluminum	**NS**	< 0.011	0.011	**0.37**	0.11	**0.73**	0.11	**0.45**	0.11	**0.9**	0.11	**0.32**	0.11	**0.021**	0.011	**0.49**	0.11	< 0.011	0.011
Antimony	**0.003**	< 0.003	0.003	< 0.003	0.003	< 0.003	0.003	**0.003**	0.003	< 0.003	0.003	< 0.003	0.003	< 0.003	0.003	< 0.003	0.003	< 0.003	0.003
Arsenic	**0.025**	**0.003**	0.003	**0.003**	0.003	**0.001**	0.003	**0.005**	0.003	**0.024**	0.003	**0.004**	0.003	**0.005**	0.003	**0.008**	0.003	**0.001**	0.003
Barium	**1**	**0.243**	0.011	**0.263**	0.011	**0.324**	0.011	**0.287**	0.011	**0.197**	0.011	**0.297**	0.011	**0.24**	0.011	**0.187**	0.011	**0.327**	0.011
Beryllium	**0.003**	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001
Cadmium	**0.005**	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004
Calcium	**NS**	**157**	0.01	**155**	0.01	**232**	0.11	**150**	0.01	**128**	0.01	**186**	0.11	**155**	0.01	**114**	0.01	**250**	0.11
Chromium	**0.05**	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001
Cobalt	**NS**	< 0.005	0.005	**0.002**	0.005	< 0.005	0.005	**0.002**	0.005	**0.002**	0.005	**0.002**	0.005	**0.003**	0.005	**0.002**	0.005	< 0.005	0.005
Copper	**0.2**	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005
Iron	**0.5**	**1.63**	0.01	**2.38**	0.01	**0.03**	0.01	**1.26**	0.01	**2.24**	0.01	**8.33**	0.01	**4.81**	0.01	**5.27**	0.01	**0.03**	0.01
Lead	**0.025**	< 0.002	0.002	< 0.002	0.002	**0.001**	0.002	< 0.002	0.002	< 0.002	0.002	**0.001**	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002
Magnesium	**35**	**12.4**	0.01	**24.6**	0.01	**19.6**	0.01	**25.6**	0.01	**22.6**	0.01	**30.9**	0.01	**24.7**	0.01	**22.6**	0.01	**19.3**	0.01
Manganese	**0.3**	**0.848**	0.005	**0.82**	0.005	**1.21**	0.005	**1.27**	0.005	**0.529**	0.005	**0.39**	0.005	**0.471**	0.005	**0.261**	0.005	**1.18**	0.005
Mercury	**0.0007**	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002
Nickel	**0.1**	**0.001**	0.004	**0.002**	0.004	< 0.004	0.004	**0.003**	0.004	**0.002**	0.004	**0.002**	0.004	**0.002**	0.004	**0.002**	0.004	< 0.004	0.004
Potassium	**NS**	**15.4**	0.1	**31**	0.1	**27.4**	0.1	**32.9**	0.1	**28.6**	0.1	**40.8**	0.1	**34.6**	0.1	**24**	0.1	**28.7**	0.1
Selenium	**0.01**	< 0.004	0.004	< 0.004	0.004	**0.003**	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	**0.003**	0.004
Silver	**0.05**	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005
Sodium	**2**	**114**	1.1	**164**	1.1	**203**	1.1	**148**	1.1	**131**	1.1	**144**	1.1	**113**	1.1	**74.7**	1.1	**211**	1.1
Thallium	**0.0005**	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005
Vanadium	**NS**	< 0.011	0.011	< 0.011	0.011	< 0.011	0.011	< 0.011	0.011	< 0.011	0.011	< 0.011	0.011	< 0.011	0.011	< 0.011	0.011	< 0.011	0.011
Zinc	**2**	**0.002**	0.011	**0.003**	0.011	**0.009**	0.011	**0.013**	0.011	**0.002**	0.011	**0.004**	0.011	**0.003**	0.011	**0.002**	0.011	**0.009**	0.011

Notes:
RL- Reporting limit
NS - No Standard
Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

65 Eckford Street
Brooklyn, New York

TABLE 13
Soil Gas - Volatile Organic Compounds

COMPOUNDS	NYSDOH Maximum Sub-Slab Value (µg/m^3) (a)	NYSDOH Soil Outdoor Background Levels (µg/m^3) (b)	SG1 12/8/2015 (µg/m3)		SG2 12/8/2015 (µg/m3)		SG3 12/9/2015 (µg/m3)		SG4 12/8/2015 (µg/m3)		SG5 12/8/2015 (µg/m3)		SG6 12/8/2015 (µg/m3)		SG7 12/8/2015 (µg/m3)	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachloroethane			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,1,1-Trichloroethane	100	<2.0 - 2.8	**3.38**	1.00	< 1.00	1.00	**47.6**	1.00	**1.37**	1.00	< 3.00	3.00	**1.62**	1.00	< 5.00	5.00
1,1,2,2-Tetrachloroethane		<1.5	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,1,2-Trichloroethane		<1.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,1-Dichloroethane		<1.0	**6.63**	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	**1.72**	1.00	< 5.02	5.02
1,1-Dichloroethene		<1.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 4.99	4.99
1,2,4-Trichlorobenzene		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,2,4-Trimethylbenzene		<1.0	**1.64**	1.00	**1.24**	1.00	**1.26**	1.00	**1.62**	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
1,2-Dibromoethane		<1.5	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,2-Dichlorobenzene		<2.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,2-Dichloroethane		<1.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.02	5.02
1,2-Dichloropropane			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 4.99	4.99
1,2-Dichlorotetrafluoroethane			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,3,5-Trimethylbenzene		<1.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	**1**	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
1,3-Butadiene		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.01	3.01	< 1.00	1.00	< 5.00	5.00
1,3-Dichlorobenzene		<2.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,4-Dichlorobenzene		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,4-Dioxane			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
2-Hexanone			**4.3**	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 4.99	4.99
4-Ethyltoluene		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
4-Isopropyltoluene			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
4-Methyl-2-pentanone			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	**3.03**	1.00	**5.77**	4.99
Acetone		NA	**475**	9.99	**451**	9.99	**117**	5.01	**577**	9.99	< 2.99	2.99	**275**	9.99	**203**	5.01
Acrylonitrile			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 2.99	2.99	< 1.00	1.00	< 5.01	5.01
Benzene		<1.6 - 4.7	< 1.00	1.00	**2.29**	1.00	< 1.00	1.00	**49.2**	1.00	**19.8**	3.00	**4.15**	1.00	< 5.01	5.01
Benzyl Chloride		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
Bromodichloromethane		<5.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
Bromoform		<1.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
Bromomethane		<1.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
Carbon Disulfide		NA	< 1.00	1.00	**2.3**	1.00	**1.85**	1.00	**12**	1.00	**79.7**	3.00	**62.5**	1.00	**29.4**	5.01
Carbon Tetrachloride	5	<3.1	< 0.25	0.25	< 0.25	0.25	**0.35**	0.25	< 0.25	0.25	< 0.75	0.75	< 0.25	0.25	< 1.24	1.24
Chlorobenzene		<2.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
Chloroethane		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.01	3.01	**59.1**	1.00	**7.17**	5.01
Chloroform		<2.4	**33**	1.00	< 1.00	1.00	< 1.00	1.00	**1.58**	1.00	< 3.00	3.00	**16.5**	1.00	< 4.98	4.98
Chloromethane		<1.0 - 1.4	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 2.99	2.99	< 1.00	1.00	< 4.99	4.99
cis-1,2-Dichloroethene		<1.0	**85.2**	1.00	< 1.00	1.00	< 1.00	1.00	**1.03**	1.00	< 3.00	3.00	< 1.00	1.00	< 4.99	4.99
cis-1,3-Dichloropropene		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 4.99	4.99
Cyclohexane		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	**464**	30.0	< 1.00	1.00	**10.9**	4.99
Dibromochloromethane		<5.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
Dichlorodifluromethane		NA	**2.14**	1.00	**128**	1.00	**2.06**	1.00	< 1.00	1.00	< 3.00	3.00	**1.68**	1.00	< 4.99	4.99
Ethanol			**8.94**	1.00	**14.8**	1.00	**4.59**	1.00	**10.1**	1.00	**7.49**	2.99	**6.12**	1.00	**6.23**	5.01
Ethyl Acetate		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
Ethylbenzene		<4.3	**1.1**	1.00	**1.3**	1.00	< 1.00	1.00	**13.9**	1.00	< 3.00	3.00	< 1.00	1.00	< 4.99	4.99
Heptane		NA	**1.45**	1.00	**16.2**	1.00	< 1.00	1.00	**64.7**	1.00	**300**	3.00	**7.66**	1.00	**6.47**	5.00
Hexachlorobutadiene		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.01	3.01	< 1.00	1.00	< 5.00	5.00
Hexane		<1.5	< 1.00	1.00	**46.5**	1.00	< 1.00	1.00	**193**	10.0	**842**	30.0	**11.1**	1.00	**18.1**	5.00
Isopropylalcohol		NA	**4.03**	1.00	**7.17**	1.00	**1.94**	1.00	**4.45**	1.00	**3.39**	3.00	**3.05**	1.00	**8.55**	5.01
Isopropylbenzene			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	**4.43**	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
Xylene (m&p)		<4.3	**4.34**	1.00	**4.13**	1.00	**1.86**	1.00	**13.9**	1.00	< 3.00	3.00	**4.05**	1.00	< 4.99	4.99
Methyl Ethyl Ketone			**13.9**	1.00	**14.2**	1.00	**2.88**	1.00	**11.1**	1.00	< 3.01	3.01	**9.4**	1.00	**5.36**	5.01
MTBE		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
Methylene Chloride		<3.4	**2.75**	1.00	**1.07**	1.00	**3.1**	1.00	**2.3**	1.00	< 3.00	3.00	**2.43**	1.00	< 5.00	5.00
n-Butylbenzene			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
Xylene (o)		<4.3	**1.17**	1.00	**1.15**	1.00	< 1.00	1.00	**2.39**	1.00	**10.6**	3.00	**1.5**	1.00	< 4.99	4.99
Propylene		NA	**3.61**	1.00	**160**	9.99	**5.87**	1.00	**473**	9.99	**1,320**	29.9	**66.4**	1.00	**182**	5.01
sec-Butylbenzene			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
Styrene		<1.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 4.98	4.98
Tetrachloroethene	100		**69.8**	0.25	**0.72**	0.25	**7.39**	0.25	**7.93**	0.25	**2.77**	0.75	**13.8**	0.25	**14.3**	1.25
Tetrahydrofuran		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.01	3.01	< 1.00	1.00	< 5.01	5.01
Toluene		1.0 - 6.1	**9.91**	1.00	**7.65**	1.00	**2.07**	1.00	**20.4**	1.00	**18.4**	3.00	**15.1**	1.00	**6.21**	5.01
trans-1,2-Dichloroethene		NA	**15.5**	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 4.99	4.99
trans-1,3-Dichloropropene		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 4.99	4.99
Trichloroethene	5	<1.7	**1,650**	2.50	**4.04**	0.25	**14.1**	0.25	**6.18**	0.25	**69.3**	0.75	**245**	2.50	**38**	1.25
Trichlorofluoromethane		NA	< 1.00	1.00	< 1.00	1.00	**1.99**	1.00	< 1.00	1.00	< 3.00	3.00	**1.56**	1.00	**30.9**	5.00
Trichlorotrifluoroethane			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
Vinyl Chloride		<1.0	**1.26**	0.25	**7.43**	0.25	< 0.25	0.25	< 0.25	0.25	**107**	0.75	< 0.25	0.25	< 1.25	1.25
BTEX			16.52		16.52		3.93		99.79		48.8		24.8		6	
Total VOCs			601.71		861.46		153.86		1456.99		2604.15		488.53		516.29	

Notes:
NA No guidance value or standard available
(a) Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York. October 2006. New York State Department of Health.
(b) NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, February 2005, Summary of Background Levels for Selected Compounds (NYSDOH Database, Outdoor

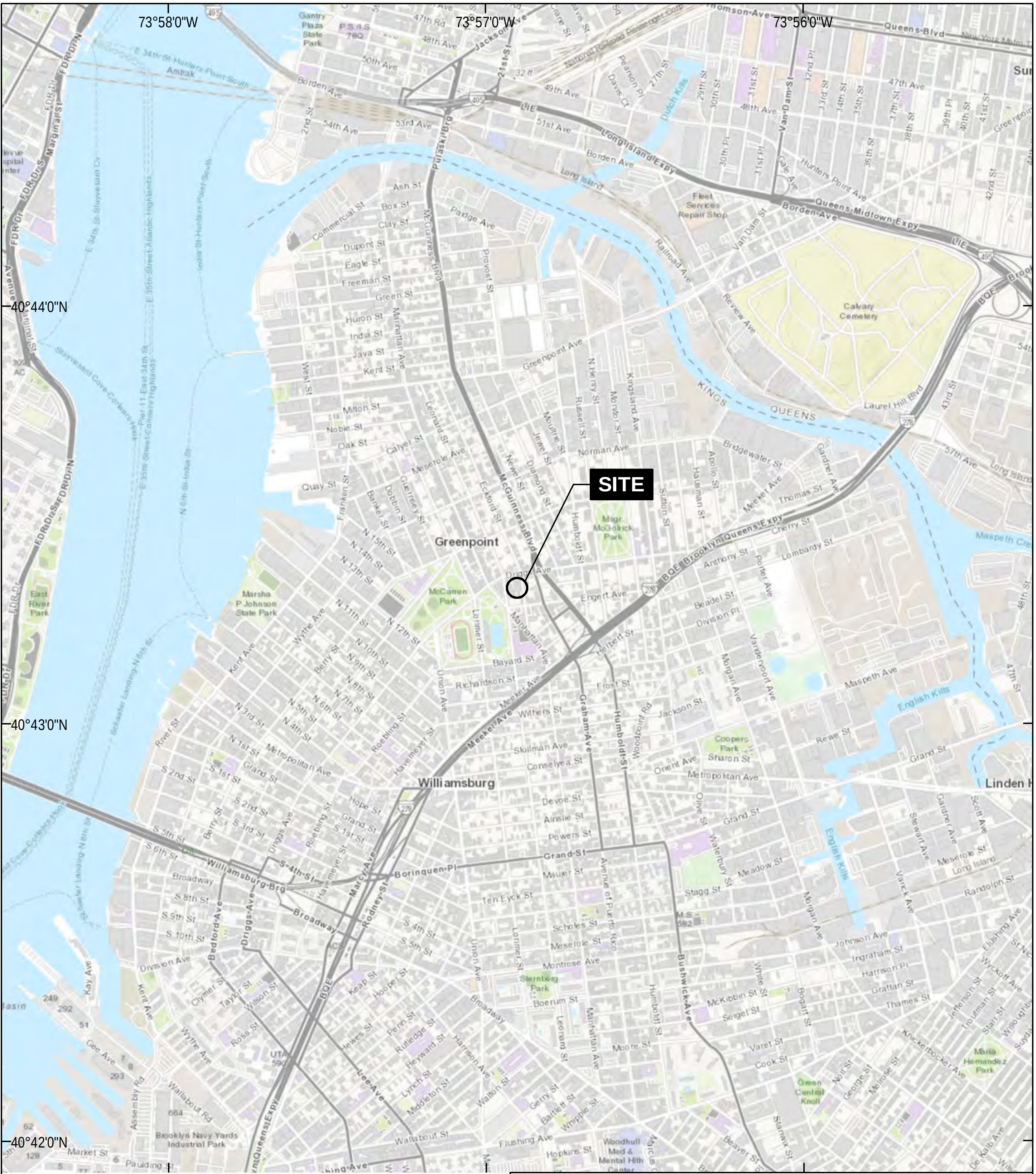
Table 14. Sampling and Analysis Plan
Former Carter Spray Finishing Corp.
BCP Site C224218
65 Eckford Street, Brooklyn, New York

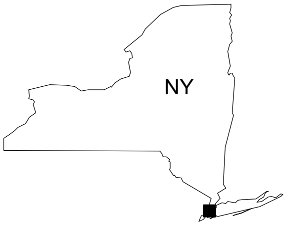
Location	Sample Depth	Target Compound List VOCs (8260B)	Target Compound List SVOCs (8270C)	Total Analyte List Metals (6010)	PCBs (8082)	Pesticides (8081)	PFAS (537)	1,4-Dioxane (8270 SIM)	VOCs (TO-15)
SOIL									
SB-01	0-2''	X	X	X			X	X	
	18-20'	X	X	X			X	X	
SB-02	0-2''	X	X	X			X	X	
	18-20'	X	X	X			X	X	
SB-03	0-2''	X	X	X			X	X	
	18-20'	X	X	X			X	X	
SB-04	0-2''	X	X	X			X	X	
	18-20'	X	X	X			X	X	
SB-05	0-2''	X	X	X			X	X	
	18-20'	X	X	X			X	X	
SB-06	0-2''	X	X	X			X	X	
	18-20'	X	X	X			X	X	
SB-07	0-2''	X	X	X			X	X	
	18-20'	X	X	X			X	X	
SB-08	0-2''	X	X	X			X	X	
	18-20'	X	X	X			X	X	
SB-09	0-2''	X	X	X			X	X	
	18-20'	X	X	X			X	X	
SB-10	0-2''	X	X	X			X	X	
	18-20'	X	X	X			X	X	
SB-11	0-2''	X	X	X			X	X	
	18-20'	X	X	X			X	X	
SB-12	0-2''	X	X	X			X	X	
	18-20'	X	X	X			X	X	
SB-13	0-2''	X	X	X			X	X	
	18-20'	X	X	X			X	X	
SB-14	0-2''	X	X	X			X	X	
	18-20'	X	X	X			X	X	
SB-15	0-2''	X	X	X			X	X	
	18-20'	X	X	X			X	X	
GROUNDWATER									
MW-01	-	X	X	X			X	X	
MW-02	-	X	X	X			X	X	
MW-03	-	X	X	X			X	X	
MW-04	-	X	X	X			X	X	
MW-05	-	X	X	X			X	X	
MW-06	-	X	X	X			X	X	
MW-07	-	X	X	X			X	X	
MW-08	-	X	X	X			X	X	
SOIL VAPOR									
SV-01	10-11'								X
SV-02	10-11'								X
SV-03	10-11'								X
SV-04	10-11'								X
SV-05	10-11'								X

Notes:
VOCs - Volatile Organic Compounds
SVOCs - Semi-volatile Organic Compounds
PCBs - Polychlorinated biphenyls
PFAS - Per- and Polyfluoroalkyl Substances
Surface soil samples collected from 0-2 inches depth from current grade
Subsurface soil sampes collected from 18-20 feet from sidewalk grade
Soil vapor sample depth from grade after backfilling of the site post Corrective Action

QAQC samples include:
MS/MSD - 1 for every 20 samples
Field Duplicate - 1 for every 20 samples
Trip Blanks - 1 per cooler of samples to be analyzed for VOCs
Field Blanks - 1 for every 20 samples

FIGURES





MAP SOURCE: ESRI
SITE COORDINATES: 40°43'19"N, 73°56'54"W

HALEY ALDRICH

65 ECKFORD STREET
BROOKLYN, NEW YORK

PROJECT LOCUS

APPROXIMATE SCALE: 1 IN = 2000 FT
AUGUST 2021

FIGURE 1

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LEGEND

▭ SITE BOUNDARY

Field Notes:

1. 95% of site is covered in thick vegetation (i.e. reeds and weeds).
1. Excavation depth site wide is approx. 6' bgs (potential to be deeper as site gently slopes to the west).
3. Existing construction ramp located in the central portion of the site and contains gravel.
4. Debris and garbage located within the excavation and entrance area.
5. One permanent groundwater monitoring well observed in the southwestern corner of the site (i.e. in sidewalk within construction fence).

NOTES

1. ALL LOCATIONS ARE APPROXIMATE.

2. AERIAL IMAGERY SOURCE: NEARMAP, 12 MARCH 2021

N

0 20 40

SCALE IN FEET

HALEY ALDRICH

65 ECKFORD STREET
BROOKLYN, NEW YORK

MAP OF EXISTING SITE CONDITIONS

SEPTEMBER 2021

FIGURE 2

GIS FILE PATH: C:\Users\hwachholz\Documents\working\superseded\202156\GIS\Maps\2021_08\202156_000_0002_SITE_PLAN.mxd — USER: hwachholz — LAST SAVED: 8/3/2021 1:00:46 PM

LEGEND

▭ SITE BOUNDARY

⊕ PROPOSED SOIL BORING/PERMANENT MONITORING WELL LOCATION

⊕ PROPOSED SOIL BORING LOCATION

▲ PROPOSED SOIL VAPOR POINT LOCATION

⊕ PROPOSED ENDPOINT SAMPLE LOCATION FROM THE CORRECTIVE ACTION WORK PLAN

⬚ APPROXIMATE LOCATION OF 550-GALLON UST REMOVED IN JUNE 2018

NOTES

1. ALL LOCATIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: NEARMAP, 12 MARCH 2021

N

0 20 40

SCALE IN FEET

HALEY ALDRICH

65 ECKFORD STREET
BROOKLYN, NEW YORK

PROPOSED SAMPLE LOCATION MAP

SEPTEMBER 2021

FIGURE 3

GIS FILE PATH: C:\Users\hwachholz\Documents\working\superseded\202156\GIS\Maps\2021_08\202156_000_0002_SITE_PLAN.mxd — USER: hwachholz — LAST SAVED: 8/3/2021 1:00:46 PM

APPENDIX A

Previous Reports

FORMER CARTER SPRAY FINISHING CORP. SITE
DEC Site ID No. C224218
65 ECKFORD STREET
BROOKLYN, NEW YORK 11222
Block 2698, Lot 26

REMEDIAL INVESTIGATION REPORT

JUNE 2016

Prepared for:

Z65 Realty LLC
266 Broadway Suite 301
Brooklyn, NY 11211

EBC
ENVIRONMENTAL BUSINESS CONSULTANTS
1808 Middle Country Road
Ridge, NY 11961

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Former Carter Spray Finishing Corp. Site

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Former Carter Spray Finishing Corp. Site

ATTACHMENTS

LIST OF ACRONYMS

Acronym	Definition
AOC	Area of Concern
AST	Aboveground Storage Tank
BCP	Brownfields Cleanup Program
BCA	Brownfield Site Cleanup Agreement
CVOC	Chlorinated VOC
ESA	Environmental Site Assessment
EBC	Environmental Business Consultants
IRM	Interim Remedial Measure Work Plan
NYCDEP	New York City Department of Environmental Protection
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PID	Photo-Ionization Detector
PCB	Polychlorinated Biphenyls
REC	Recognized Environmental Condition
RI	Remedial Investigation
RIWR	Remedial Investigation Work Plan
SVOC	Semi-Volatile Organic Compound
UST	Underground Storage Tank
VOC	Volatile Organic Compound

REPORT CERTIFICAION

I, Charles Sosik, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Remedial Investigation Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

Charles Sosik

Charles Sosik, PG Date: 10-31-2016
Principal

1.0 INTRODUCTION

1.1 Project Background

This Remedial Investigation Report (RIR) was prepared on behalf of Z65 Realty LLC for the property known as the Former Carter Spray Finishing Corp. Site, located at 65 Eckford Street, Brooklyn, New York (hereafter referred to as the Site). In May 2015, Z65 Realty LLC filed an application with the New York State Department of Environmental Conservation (NYSDEC), to admit the Project Site into the New York State Brownfield Cleanup Program (BCP). The application was deemed complete by the NYSDEC on May 18, 2015. On June 29, 2015, the NYSDEC informed Z65 Realty LLC that the project had been accepted into the BCP with Z65 Realty LLC classified as a "Volunteer". The Brownfield Cleanup Agreement was executed by NYSDEC on July 16, 2015 (Site No. C224218).

The purpose of this Remedial Investigation Report is to collect data of sufficient quality and quantity to characterize the nature and extent of contamination and to complete a qualitative exposure assessment for future occupants of the proposed building and the surrounding community.

The overall objectives of the project are to prepare the Site for unrestricted use as defined in the Brownfield Cleanup Agreement and to remediate known and unknown environmental conditions at the Site to the satisfaction of the NYSDEC and the New York State Department of Health (NYSDOH).

The field work portion of the RI was conducted by EBC in December 2015.

1.2 Site Location and Description

The street address for the Site is 65 Eckford Street, Brooklyn, NY 11222 (**Figure 1**). The Site is located in the City of New York and Borough of Brooklyn and is identified as Block 2698, Lot 26 on the New York City Tax Map. The Site is an irregular shaped lot consisting of approximately 85 feet of frontage along Eckford Street (**Figure 2**) and a depth of approximately 100 feet for a total of approximately 10,206 ft^2 (0.23 acres).

The 1 and 2-story industrial/manufacturing building (constructed between 1905 and 1916) that previously occupied the entire footprint of Lot 26 was demolished in November/December of 2015. The Site was previously utilized by several industrial operations, including a woodworking shop, machine shop, wood box manufacturing facility, automobile parking garage with underground gasoline storage tank(s), and a metal finishing facility that utilized two 275-gallon aboveground storage tanks that contained Trichloroethene (TCE). A topographic survey showing underground utilities is provided in **Figure 3**.

The elevation of the Site ranges from 19 to 20 feet above the National Geodetic Vertical Datum (NGVD). The area topography gradually slopes downward to the north and west. The depth to groundwater beneath the Site is approximately 12 to 13 feet below grade. Based on regional groundwater elevation maps, groundwater flows to the north-northwest.

The area surrounding the property (**Figure 4**) is highly urbanized and predominantly consists of multi-family residential buildings with mixed-use buildings (residential w/ first floor retail) along main corridors such as Driggs Avenue located at the end of the block to the north and McGuiness Boulevard, located two blocks to the east. The area is marked by late 19th and early 20th century row houses with commercial and industrial properties interspersed throughout the residential sections. The area to the west of the Site was historically characterized by heavy industry and manufacturing. Following a steady decline of manufacturing in the area from the late 1960's through the 1980's, many of the industrial properties were vacated leaving the buildings to be vandalized and become derelict. Four sensitive receptors were identified within a ¼ mile radius of the Site. Each is identified below:

1) John Ericsson Middle School 126 (500 feet south of Site)
   424 Leonard Street, Brooklyn, New York 11222

2) Northside Charter High School (500 feet south of Site)
   424 Leonard Street, Brooklyn, NY 11222

3) Automotive High School (1,200 feet west of Site)
   50 Bedford Avenue, Brooklyn, New York 11222

4) St. Stanislaus Kostka School (600 feet east-northeast of Site)
   189 Driggs Avenue, Brooklyn, New York 11222

5) ABC Infant & Toddler Center, Inc. (800 feet north of Site)
   109 Nassau Avenue, Brooklyn, NY 11222

The entire area is serviced by the New York City municipal water system which provides water from a series of reservoir systems (Croton, Delaware, Catskill) located north of the City. There are no known public or private drinking water supply wells within a half mile down gradient of the Site.

1.3 Redevelopment Plans

The redevelopment project consists of the construction of a new 5-story hotel building with a full cellar level and a rear cellar level courtyard. The cellar level and rear cellar level courtyard will require excavation of the entire Site to a depth of approximately 12 ft below grade with additional excavation to depths of approximately 15 feet in some areas for the building's footings and foundation. With groundwater present at 12 feet below grade, extensive dewatering will be required during construction of the building's foundation.

The cellar level will consist of a recreational room, gym, lobby/lounge, kitchen and break room for the hotel, six mechanical rooms located in the front of the cellar, and eight hotel rooms that face a cellar level, concrete capped rear yard.

1.4 Site History

A history for the Site dating back to 1887 was established. A review of Sanborn maps shows that the Site and adjacent properties were undeveloped prior to 1887. By 1905, several one-story manufacturing buildings were constructed on the Site and used as a part of the Meisel Danowitz & Co. woodworking operation. The Site was redeveloped by 1916 with the existing one and two-story building currently constructed at the Site. The 1916 Sanborn map indicates the center portion of the building was used as a parking garage for 30 cars, the rear of the building was used as a machine shop, and the front portion of the building was vacant. By 1942, the Eckford Garage utilized the entire building for parking of up to 40 cars. The 1916 and 1942 Sanborn maps indicate an underground gasoline storage tank was located in the northeast portion of the parking garage building, just beyond the front portion of the building that has a 2nd floor. The approximate location of the underground storage tank is shown on **Figure 3**. By 1950, the building was occupied with a wood box manufacturing company, and a company that performed laquer spraying on the 2nd floor. The 1965 through 1989 Sanborn maps indicate the building was used for metal finishing and spraying. City Directory Listings from 1960 to 2008 indicate the building was occupied by Carter Spray Finishing Corp.

1.5 Summary of Previous Investigations

Environmental investigations performed at the Site include the following:

- Phase I Environmental Site Assessment Screening - EBC (May 2015)
- Phase II Subsurface Investigation Data Summary - EBC (May 2015)

A digital copy of the reports is provided in **Attachment A**.

1.5.1 May 2015 – Phase I Environmental Site Assessment Screening (EBC)

Based upon reconnaissance of the Site and surrounding properties, and review of historical records and regulatory agency databases, the Phase I ESA identified the following Recognized Environmental Conditions (RECs) for the Site:

- The 1916 and 1942 Sanborn maps show a parking garage building with an underground gasoline storage tank in the northeast portion of the building. A Site inspection performed in 2015 noted a fill port indicative of an underground gasoline storage tank within the same area of the gasoline tank drawn on the Sanborn maps. Therefore, the tank(s) has not been removed. No information regarding the current status of this tank and/or soil quality in its vicinity was available for review. As such, there is a potential for spills or release from the gasoline underground storage tank to have impacted the subsurface.
- NYC Department of Building records indicate fuel oil was used for heating the building. Based on the age and size of the building, it is assumed that an underground storage tank of at least 550 gallons was used. No information/records were obtained indicating proper removal/abandonment of a No. 2 fuel oil underground storage tank has occurred. As such, there is a potential for spills or release from the No. 2 fuel oil underground storage tank to have impacted the subsurface.

- City Directory Listings, Sanborn maps and internet search results indicate the building has been historically utilized for industrial purposes, including a machine shop, parking garage, wood box manufacturing (with lacquer spray booths), and metal finishing. From approximately 1959 to 1998, Carter Spray Finishing Corp. utilized two 275-gallon aboveground storage tanks containing trichloroethene (TCE) and the Toxic Chemical Release Inventory System (TRIS) database indicates Carter Spray Finishing Corp. emitted greater than 8,000 pounds per year of TCE into the air. As such, there is a potential for historic Site operations to have impacted soil, groundwater and/or soil vapor quality beneath the Site. Further, the Site was identified as a New York City Department of City Planning (NYCDCP) Environmental "E" declaration site due to its historic use and the presence of the UST.

Based upon its findings, EBC recommended the following:

- A geophysical survey (e.g., magnetometer and/or ground penetrating radar surveys) should be conducted across the Site to confirm the location of the underground gasoline storage tank, locate a possible No. 2 fuel oil underground storage tank, and identify any other tanks, pits, drums, etc.
- If present, any historic USTs should be removed in accordance with New York State Department of Environmental Conservation (NYSDEC) and New York City Fire Department (FDNY) regulations. Any identified geophysical anomalies should be further investigated through the excavation of test pits, with soil samples collected for laboratory analysis as warranted.
- To evaluate potential impacts related to historic usage of the Site and to satisfy the NYCDCP and New York City Office of Environmental Remediation (NYCOER) requirements related to the site's listing as an "E"-designated property, a subsurface investigation should be performed. At a minimum, the investigation should include the installation of soil borings with the collection of representative soil, groundwater and/or soil vapor samples for laboratory analysis to document subsurface conditions and determine the nature and extent of contamination (if present).

The EDR Radius Map Report identified Brumar Sheet Metal, Inc. (498 Leonard Street) with open NYSDEC Spill No. 1205075. Brumar Sheet Metal, Inc. is the adjacent property to the rear/west. NYSDEC Spill file notes provided within the EDR Radius Map Report indicate ten 1,000-gallon underground storage tanks were removed in February of 2015 near the property line that separates the Site from the adjacent property to the west. Test pits excavated on the adjacent property and monitoring wells installed on the property noted free product on the groundwater surface.

A digital copy of the Phase I Environmental Site Assessment Screening is included in **Attachment A**.

1.5.2 May 2015 - Phase II Investigation Data Summary (EBC)

An initial subsurface investigation was performed on February 26, 2015, and additional sampling was performed on April 21, 2015. The initial investigation included the installation of two soil borings (B1 and B2) and the collection of one groundwater sample (B1 GW), and the second sampling event consist of the installation of three soil borings (B2, B3, B4) and the collection of a

groundwater sample from each of the three soil boring locations (GW2, GW3, G4). The installation location of all of the soil borings is shown on **Figure 5**.
A shallow soil sample representing the depth interval 0-2 feet below grade was collected from soil borings B1 and B2 in February 2015, and from 2 to 4 feet below grade from soil borings B2 and B3 in April 2015. Each of the shallow soil samples were collected from the historic fill layer below the building slab. The two historic fill soil samples collected in February were submitted for laboratory analysis of PCBs and TAL metals, and the two historic fill soil samples collected in April were submitted for laboratory analysis of SVOCs via EPA method 8270, TAL metals and TCLP Lead.

A soil sample was collected from both soil borings B1 and B2 in February from the water table interface and submitted for laboratory analysis of VOCs via EPA Method 8260 and SVOCs (CP51 list) via EPA Method 8270. Soil samples were also retained from the water table interface (11 to 13 feet below grade) from soil borings B2, B3 and B4 in April. These three soil samples were submitted for laboratory analysis of VOCs via EPA method 8260 and SVOCs via EPA method 8270.

The laboratory results identified petroleum related VOCs above Unrestricted Use SCOs and Protection of Groundwater SCOs within each of the four soil samples collected from the water table interface, including n-Proplybenzene, sec-Butylbenzene, tert-Butylbenzene, and Toluene. The concentration of total VOCs (when including naphthalene) were reported as high as 102,700 µg/kg in soil sample B3(11-13). The chlorinated VOC Trichloroethene was also detected within one of the soil samples collected in February at the water table interface at a concentration of 1,100 µg/kg.

Petroleum VOCs were detected above groundwater quality standards (GQS) within the groundwater sample collected in February 2015 and each of the three groundwater samples collected in April 2015. Petroleum VOCs detected above GQS includes 2-Isopropyltoluene, Isopropylbenzene, n-Butylbenzene, n-Propyl-benzene, sec-Butylbenzene, and tert-Butylbenzene. Total petroleum VOCs were reported in the three groundwater samples at a concentration ranging from 135 to 457 µg/L.

SVOCs including Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)flouranthene, Benzo(k)fluoranthene, Chrysene, and Indeno(1,2,3-cd)pyrene were all reported above Restricted Residential Use SCOs within the soil sample collected from the water table interface from soil boring B2. No historic fill material was present at the water table interface, so the total SVOC concentration in soil sample B2(11-13) (165,300 µg/kg) is believed to be associated with a fuel oil or other petroleum release.

2.0 REMEDIAL INVESTIGATION

2.1 Field Investigation

The field work portion of the RI was conducted by EBC in December 2015. The field investigation consisted of environmental sampling, field observations and measurements to determine:

- Local geologic/hydro geological conditions;
- Definition of source areas;
- Potential migration of contaminants from the Site to surrounding areas; and,
- Overall characterization of site-related contamination in all media.

The field effort included the collection and analysis of soil, groundwater and soil vapor samples. Laboratory services for soil, groundwater and soil vapor analysis were provided by Phoenix Environmental Laboratories, Inc. located at 587 East Middle Turnpike, Manchester, CT (NY Cert No. 11301). A sample matrix showing the number, type and analysis of samples collected during the Remedial Investigation is provided as **Table 1**.

2.2 Soil Sampling

2.2.1 Soil Borings

On December 16, 2015, and December 17, 2015, a total of ten soil borings (15SB1 – 15SB10) were advanced. The soil borings were performed during the RI to identify source areas and to obtain general soil quality information present at the Site (**Figure 4**). From each soil boring location, soil samples were collected continuously in 5-foot intervals to a depth of 20 feet below the former building slab using a track-mounted Geoprobe™ model 66DT sampling system. The Geoprobe™ uses a direct push hydraulic percussion system to drive and retrieve core samplers. Soil samples were retrieved using a 2-inch diameter, 5-foot long macro-core sampler with disposable acetate liners. Each soil sample recovered from the soil borings was characterized by an experienced geologist and field screened for the presence of VOCs using a photo-ionization detector (PID). The geologist's field observations and PID readings were recorded for each boring in a soil boring log (see **Attachment B**).

Soil samples were retained from each of the soil borings for laboratory analysis. Samples collected for laboratory analysis include the following:

- Soil samples representing the interval 0 to 2 feet below the former building slab grade were retained from soil borings 15SB1, 15SB2, and 15SB5 through 15SB10. Soil samples representing the interval 2 to 4 feet below the former building slab grade were retained from soil borings 15SB3 and 15SB4. Each of the samples was submitted for laboratory analysis of VOCs by EPA Method 8260C plus TICs, SVOCs by EPA Method 8270 plus TICs, pesticides by EPA Method 8081B, PCBs by EPA Method 8082, and target analyte list metals (EPA Method 6010). The 15SB3(2-4) and 15SB4(2-4) soil samples were also submitted for laboratory analysis of chlorinated herbicides by EPA Method 8151A and organophosphate pesticides by EPA Method 8141B.

- A soil sample was retained from each of the soil borings from the water table interface, which was determined to be the interval 11 to 13 feet below grade. Each of the samples was submitted for laboratory analysis of VOCs by EPA Method 8260C, and SVOCs by EPA Method 8270.

- A soil sample was retained from each of the soil borings from the clean native soil layer that exhibited no olfactory or PID evidence of petroleum contamination. Each of the samples correlated to the 18 to 20 foot interval, with the exception of the soil sample retained from soil boring 15SB5, which was retained from 22 to 24 ft. Each of the samples was submitted for laboratory analysis of VOCs by EPA Method 8260C, SVOCs by EPA Method 8270, pesticides by EPA Method 8081, PCBs by EPA Method 8082, and target analyte list metals (EPA Method 6010).

A total of thirty one soil samples (plus one duplicate) were retained for analysis from the ten soil boring locations. Soil sample analytical results are summarized and compared to NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives, Protection of Groundwater SCOS, Residential Restricted Use SCOs and/or Commercial SCOs on **Tables 3** through **6**.

2.3 Monitoring Well Installation

Eight groundwater monitoring wells (15MW1 through 15MW8), were installed at the Site on December 17, 2015. The locations of each of the monitoring wells are shown on **Figure 5**. All of the monitoring wells were installed with a track mounted probe drilling machine to a depth of approximately 20 ft below grade with 10 ft of 0.010 PVC well screen and 10 ft of PVC riser.

A No. 00 morie filter-pack sand filled the annulus surrounding the screen within two feet above the top of the screen. A one-foot hydrated bentonite seal was then placed on top of the filter sand and the remainder of the borehole was backfilled to grade. Following installation, each of the wells was surveyed to determine relative casing elevation to the nearest 0.01 ft and horizontal position to the nearest 0.1 ft. Groundwater elevations and monitoring well specifications for each well are provided in **Table 2**. Well completion reports detailing monitoring well construction are provided in **Attachment C**.

Prior to sampling, a synoptic round of depth-to-groundwater (DTW) measurements were obtained from the monitoring wells to determine the water table elevation and to calculate the volume of standing water in the well. The depth to groundwater was approximately 12 to 13 ft below grade. Depth to water and survey readings are provided in **Table 2**.

2.3.1 Groundwater Sampling

Each of the eight monitoring wells (15MW1 through 15MW8) was sampled on December 22, 2015. Groundwater samples were collected from the monitoring wells using low-flow sampling techniques and were monitored continuously until parameters stabilized. A peristaltic pump and polyethylene sampling tube were used to purge and collect samples from each well location. Sample tubing and the silicone pump tubing were replaced between each sample location. Samples were collected directly into pre-cleaned laboratory supplied glassware, stored in a cooler with ice and submitted to Phoenix Environmental Laboratories, Inc. Groundwater sampling logs are provided in **Attachment D**.

All groundwater samples from the monitoring wells were analyzed for VOCs by EPA Method 8260, SVOCs by EPA method 8270, Pesticides/PCBs by method 8081/8082, target analyte list (TAL) total metals and dissolved metals by EPA method 6010.

2.4 Soil Vapor Sampling

Seven soil vapor samples (SG1 through SG7) were collected during the RI from a depth of approximately 8 feet below the existing building slab on December 22, 2015. Each of the soil vapor sampling locations is shown on **Figure 6**. All soil vapor samples were collected over a 2-hr sampling period. Soil vapor samples were collected in accordance with the procedures as described in the *Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH 10/06).*

2.4.1 Installation of Soil Vapor Implants

The eight soil vapor implants were installed at the Site on December 17, 2015. The vapor implants (Geoprobe™ Model AT86 series), were constructed of a 6-inch length of double woven stainless steel wire and installed to a depth of 8 ft below grade using Geoprobe™ equipment.

During installation, the barbed end of each implant was attached to ¼ inch polyethylene tubing which extended approximately 24 inches beyond that needed to reach the surface. The tubing was capped with a ¼ inch plastic end to prevent the infiltration of foreign particles into the tube. Coarse sand was placed around the vapor implant to a height of approximately 1 foot above the bottom of the implant. The remainder of the borehole was sealed with a bentonite slurry to the surface. The tubing and borehole were then sealed at the surface with hydrated granular bentonite and a 12” x 12” (approx.) plastic sheet.

2.4.2 Surface Seal Test Procedure

In accordance with NYSDOH guidance, a tracer gas (helium) was used as a quality assurance/quality control device to verify the integrity of the sampling point seal prior to collecting the samples. This was accomplished by enriching the air space above the seal with a tracer gas (helium) while continuously monitoring air drawn from the implant with a helium detector (Ionscience Gas Check G). The tracer gas test procedure was employed at all eight soil vapor sampling locations. All seals tested tight with no infiltration of helium through the surface.

2.4.3 Soil Vapor Sample Collection

Following verification that the surface seal was tight, one to three volumes (i.e., the volume of the sample probe and tube) were purged with a handheld vacuum pump prior to collecting the samples to ensure samples collected were representative. After purging, a 6-liter summa canister, fitted with a 2-hour flow regulator was attached to the surface tube of each of the sampling points and the valve opened to initiate sampling. Sample identification, date, start time, start vacuum, end time and end vacuum were recorded on tags attached to each canister and on a sample log sheet (**Attachment E**). When the remaining vacuum in the canisters was between 5 and 8 inches Hg, (after approximately 2 hrs of run-time) the valve was closed and the canisters were detached from the sampling tube.

Sample canisters were picked up the following day by the laboratory courier and delivered to the Phoenix Environmental Laboratories, Inc. for analysis of VOCs by USEPA Method TO-15.

2.6 Laboratory Analysis

Data tables summarizing the laboratory results are provided in **Tables 3** through **12** and copies of the laboratory reports (with each chain-of-custody) are included in digital format in **Attachment F**. Soil sample results were compared to Unrestricted Use Soil Cleanup Objectives (SCOs), Protection of Groundwater SCOs, and Restricted Residential Use SCOs, as promulgated in 6 NYCRR Subpart 375-6. Groundwater results were compared to NYSDEC Division of Water, Technical & Operational Guidance Series 1.1.1, Ambient Water Quality Standards and Guidance Values (AWQS), June 1998. Soil vapor analytical results were compared to Summary of Background Levels for Selected Compounds (NYSDOH Database, Outdoor values, 2003) and New York State Department of Health (NYSDOH) Final Guidance on Soil Vapor Intrusion (October 2006) Matrix 1 and Matrix 2 values. **Table 13** contains a list of parameters detected in each of the soil samples above SCOS and the range in detections. **Table 14** contains a list of parameters detected above Ambient Groundwater Quality Standards and the range in detections.

2.6.1 Analytical Results – Soil Boring Soil Samples

A total of thirty soil samples (and one duplicate) were collected from ten soil borings for laboratory analysis of VOCs by EPA Method 8260C plus TICs, SVOCs by EPA Method 8270 plus TICs, PCBs by EPA Method 8082, and target analyte list metals (EPA Method 6010). Soil samples 15SB1(2-4), 15SB1(18-20), 15SB3(2-4), 15SB3(18-20), 15SB5(2-4), and 15SB5(22-24) were also analyzed for chlorinated herbicides by EPA Method 8151A, and organophosphorus pesticides by EPA Method 8141B. Analytical results of the soil samples collected from the soil borings are summarized and compared to Unrestricted Use SCOs, Protection of Groundwater SCOs, Restricted Residential Use SCOs, and/or Commercial SCOs in **Tables 3** through **6**.

All soil samples results above Unrestricted Use SCOs are presented in **Table 13** and posted on **Figure 7**.

<u>VOCs in Soil Above SCOs:</u>

Petroleum Volatile Organic Compounds

Petroleum related VOCs were detected above Unrestricted Use SCOs and Protection of Groundwater SCOs within six of the ten soil samples retained from the groundwater interface (11 to 13 feet below grade). No VOCs were detected above Restricted Residential Use SCOs. Petroleum related VOCs were not detected above Unrestricted Use SCOs or Protection of Groundwater SCOs within any of the clean native soil samples retained from the 18 to 20 ft interval, or the soil samples collected from the historic fill layer, representing the 0 to 2 ft or 2 to 4 ft intervals.

Chlorinated Volatile Organic Compounds

The chlorinated VOC Tetrachloroethylene was detected within several of the shallow soil samples collected from the historic fill layer, but not at a concentration above Unrestricted Use SCOs or Protection of Groundwater SCOs. PCE was not detected above the laboratory reporting limit (RL) within any of the soil samples retained at the groundwater interface (11 to 13 ft) or from the native soil layer (18 to 20 ft). It should be noted that the RL for each of the soil samples from the 11 to 13 ft interval was significantly higher due to elevated concentrations of petroleum related VOCs.

The chlorinated VOC Trichloroethylene was detected within six of the ten soil samples collected from the historic fill layer at a concentration above Unrestricted Use SCOs and Protection of Groundwater SCOs. The highest Trichloroethylene concentrations were reported in soil samples 15SB1(2-4) (6,600 µg/kg), 15SB2(0-2) (4,000 µg/kg), and 15SB10 (0-2) (2,100 µg/kg). The 15SB1, 15SB2 and 15SB10 soil borings are all located in the rear of the Site. TCE was not detected above the laboratory reporting limit (RL) within any of the soil samples retained at the groundwater interface (11 to 13 ft) or from the native soil layer (18 to 20 ft), with the exception of soil sample 15SB2(18-20) (3.8 µg/kg). It should be noted that the RL for each of the soil samples from the 11 to 13 ft interval was significantly higher due to elevated concentrations of petroleum related VOCs.

Unrestricted Use SCO exceedances for each soil sample are provided below:

15SB1(2-4') – cis-1,2-Dichloroethene (430 µg/kg), Trichloroethene (6,600 µg/kg)

15SB1(11-13') – Acetone (10,000 µg/kg), Chlorobenzene (8,000 µg/kg), cis-1,2-dichloroethene (1,900 µg/kg), ethylbenzene (2,900 µg/kg), m&p-Xylenes (5,700 µg/kg), n-Propylbenzene (4,800 µg/kg), sec-Butylbenzene (18,000 µg/kg)

15SB1(18-20') – Acetone (210 µg/kg)

15SB2(0-2') – cis-1,2-Dichloroethene (450 µg/kg), Trichloroethene (4,000 µg/kg)

15SB2(11-13') – sec-Butylbenzene (15,000 µg/kg)

15SB2(18-20') – Acetone (630 µg/kg), Methyl Ethyl Ketone (200 µg/kg)

15SB3(18-20') – Acetone (170 µg/kg)

15SB4(11-13') – n-Propylbenzene (12,000 µg/kg), sec-Butylbenzene (19,000 µg/kg)

15SB5(2-4') – Trichloroethene (780 µg/kg)

15SB5(11-13') – sec-Butylbenzene (26,000 µg/kg), tert-Butylbenzene (6,100 µg/kg)

15SB6(0-2') – Trichloroethene (630 µg/kg)

15SB6(18-20') – Acetone (70 µg/kg)

15SB7(0-2') – Trichloroethene (510 µg/kg)

15SB7(11-13') – n-Propylbenzene (4,700 µg/kg), sec-Butylbenzene (27,000 µg/kg)

15SB8(11-13') – 1,2,4-Trimethylbenzene (6,500 µg/kg), n-butylbenzene (16,000 µg/kg), n-Propylbenzene (31,000 µg/kg), sec-Butylbenzene (31,000 µg/kg)

15SB10(0-2') – Trichloroethene (2,100 µg/kg)

15SB10(11-13') – Vinyl Chloride (350 µg/kg)

15SB10(18-20') – Acetone (200 µg/kg)

SVOCs in Soil Above SCOs:

SVOCs were detected above Unrestricted Use SCOs, Restricted Residential Use SCOs and/or Commercial SCOs (COM) within five of the ten shallow soil samples collected from the historic fill layer, and within two of the soil samples collected at the groundwater interface (11 to 13 ft interval). No SVOCs were detected above Unrestricted Use SCOs or Protection of Groundwater SCOs within any of the soil samples retained from the native soil layer (18 to 20 ft interval). Unrestricted Use SCO and Restricted Residential Use SCO exceedances for each soil sample are provided below.

15SB1 (2-4') – RR – Indeno(1,2,3-cd)pyrene (630 µg/kg)

15SB1 (11-13') – RR – Indeno(1,2,3-cd)pyrene (510 µg/kg)

15SB5 (2-4') – UU – Benzo(k)fluoranthene (3,300 µg/kg)
– RR – Benz(a)anthracene (4,300 µg/kg), Benzo(b)fluoranthene (3,900 µg/kg), Chrysene (4,400 µg/kg), Dibenz(a,h)anthracene (450 µg/kg), Indeno(1,2,3-cd)pyrene (2,400 µg/kg)
– COM – Benzo(a)pyrene (4,500 µg/kg)

15SB5 (11-13') – UU – Benzo(k)fluoranthene (840 µg/kg), Chrysene (1,200 µg/kg)
– RR – Benz(a)anthracene (1,100 µg/kg), Indeno(1,2,3-cd)pyrene (550 µg/kg)
– COM – Benzo(a)pyrene (1,200 µg/kg)

15SB7 (0-2') – UU – Benzo(k)fluoranthene (3,800 µg/kg)
– RR – Benzo(b)fluoranthene (4,100 µg/kg), Chrysene (6,600 µg/kg), Indeno(1,2,3-cd)pyrene (3,200 µg/kg)
– COM – Benz(a)anthracene (6,400 µg/kg), Benzo(a)pyrene (5,000 µg/kg), Dibenz(a,h)anthracene (660 µg/kg)

15SB8 (0-2') – UU – Benzo(k)fluoranthene (1,600 µg/kg), Chrysene (2,300 µg/kg)
– RR – Benz(a)anthracene (2,000 µg/kg), Benzo(b)fluoranthene (1,600 µg/kg), Indeno(1,2,3-cd)pyrene (990 µg/kg)
– COM – Benzo(a)pyrene (1,900 µg/kg)

15SB9 (0-2') – UU – Benzo(k)fluoranthene (1,700 µg/kg), Chrysene (2,100 µg/kg)
– RR – Benz(a)anthracene (1,800 µg/kg), Benzo(b)fluoranthene (1,700 µg/kg), Indeno(1,2,3-cd)pyrene (1,100 µg/kg)
– COM – Benzo(a)pyrene (1,800 µg/kg)

Pesticides, Organophosphate Pesticides, and Chlorinated Herbicides in Soil Above Unrestricted Use SCOs:

The pesticide 4,4'-DDT (7.1 µg/kg) was detected above Unrestricted Use SCOs within the duplicate soil sample. No other pesticides or chlorinated herbicides were detected above Unrestricted Use SCOs or Protection of Groundwater SCOs in any of the soil samples analyzed.

PCBs in Soil Above Unrestricted Use SCOs:

No PCBs were detected in any of the samples analyzed, with the exception of PCB-1260 (58 µg/kg) which was detected in soil sample 15SB1(2-4') at a concentration below Unrestricted Use SCOs.

Metals in Soil Above SCOs:

Metals were detected above Unrestricted Use SCOs (UU), Restricted Residential Use SCOs (RRU) and/or Commercial SCOs (COM) within all ten shallow soil samples collected from the historic fill layer (0 to 2ft and 2 to 4ft intervals), and within all but two of the soil samples retained from the native soil layer (18 to 20 ft interval). Unrestricted Use, Restricted Residential Use and Commercial Use SCO exceedances for each soil sample are provided below.

15SB1 (2-4') – UU – Chromium (87.7 mg/kg), Copper (52.4 mg/kg), Lead (228 mg/kg), Mercury (0.72 mg/kg), Nickel (138 mg/kg), Zinc (577 mg/kg)

15SB2 (0-2') – UU – Copper (97.9 mg/kg), Mercury (1 mg/kg), Zinc (300 mg/kg)
– RRU – Lead (776 mg/kg)

15SB2 (18-20') – UU – Lead (103 mg/kg), Mercury (0.4 mg/kg), Zinc (114 mg/kg)
– COM – Arsenic (17.7 mg/kg)

15SB3 (2-4') – UU – Arsenic (13.4 mg/kg), Zinc (995 mg/kg)
– RRU – Mercury (2.75 mg/kg)
– COM – Barium (743 mg/kg), Copper (938 mg/kg), Lead (2,790 mg/kg)

15SB3 (18-20') – UU – Mercury (0.55 mg/kg)

15SB4 (0-2') – UU – Copper (63.9 mg/kg), Lead (162 mg/kg), Zinc (184 mg/kg)

15SB4 (18-20') – UU – Copper (89.6 mg/kg), Zinc (359 mg/kg)
– RRU – Lead (512 mg/kg)
– COM – Arsenic (18.1 mg/kg), Mercury (3.35 mg/kg)

15SB5 (2-4') – UU – Copper (50.4 mg/kg), Lead (190 mg/kg), Zinc (177 mg/kg)
– RRU – Mercury (0.92 mg/kg)

15SB6 (0-2') – UU – Arsenic (14.4 mg/kg), Copper (95.2 mg/kg), Mercury (0.45 mg/kg), Zinc (768 mg/kg)

15SB6 (18-20') – UU – Lead (122 mg/kg), Nickel (65 mg/kg), Zinc (197 mg/kg)
– COM – Arsenic (31.5 mg/kg), Barium (818 mg/kg), Mercury (14 mg/kg)

15SB7 (0-2') – UU – Copper (62.4 mg/kg), Lead (172 mg/kg), Zinc (150 mg/kg)
– COM – Mercury (3.04 mg/kg)

15SB7 (18-20') – UU – Copper (119 mg/kg), Zinc (217 mg/kg)
– RRU – Lead (529 mg/kg)
– COM – Arsenic (17.9 mg/kg), Mercury (11.3 mg/kg)

15SB8 (0-2') – UU – Copper (59.2 mg/kg), Lead (317 mg/kg), Mercury (0.21 mg/kg), Zinc (222 mg/kg)

15SB8 (18-20') – UU – Lead (134 mg/kg), Zinc (136 mg/kg)
– RRU – Mercury (0.92 mg/kg)

15SB9 (0-2') – UU – Arsenic (15.2 mg/kg), Copper (66.8 mg/kg), Zinc (170 mg/kg)
– RRU – Lead (612 mg/kg)
– COM – Mercury (4.47 mg/kg)

15SB9 (18-20') – UU – Lead (106 mg/kg)
– COM – Arsenic (27 mg/kg)

15SB10 (0-2') – UU – Copper (60 mg/kg), Lead (213 mg/kg), Zinc (112 mg/kg)
– RRU – Cadmium (2.95 mg/kg)

15SB10 (18-20') – UU – Copper (77 mg/kg), Lead (268 mg/kg), Zinc (277 mg/kg)
– COM – Arsenic (35.8 mg/kg), Mercury (12.1 mg/kg)

2.6.2 Analytical Results – Groundwater Samples

A total of eight groundwater samples were collected from the eight groundwater monitoring wells for laboratory analysis of VOCs (EPA Method 8260), SVOCs (EPA Method 8270), pesticides/PCBs (EPA Method 8081/8082), and total and dissolved TAL metals (EPA Method 6010). The results of groundwater samples collected during the RI are summarized in **Tables 7** through **11** and posted on **Figure 9**. Several VOC detections were in excess of the NYSDEC Division of Water, Technical & Operational Guidance Series 1.1.1, Ambient Water Quality Standards (GQS) for Class GA (drinking water), June 1998.

VOCs in Groundwater Above GQS:

No VOCs were detected above GQS within groundwater samples 15MW3 and 15MW6. VOCs consisting primarily of petroleum related VOCs were detected above GQS within groundwater samples 15MW1, 15MW2, 15MW4, 15MW5, 15MW7 and 15MW8. GQS exceedences are listed below:

15MW1 – 2-Isopropyltoluene (7 µg/L), Chlorobenzene (8.1 µg/L), cis-1,2,-Dichloroethene (13 µg/L), Isopropylbenzene (8.5 µg/L), n-Propylbenzene (6.2 µg/L), sec-Butylbenzene (15 µg/L), tert-Butylbenzene (6 µg/L), vinyl chloride (13 µg/L)

15MW2 – 2-Isopropyltoluene (7.3 µg/L), Acetone (59 µg/L), Chloroethane (56 µg/L), sec-Butylbenzene (12 µg/L), tert-Butylbenzene (6.5 µg/L)

15MW4 – 2-Isopropyltoluene (28 µg/L), Chloroethane (130 µg/L), Isopropylbenzene (6.8 µg/L), n-Butylbenzene (5.4 µg/L), sec-Butylbenzene (36 µg/L), tert-Butylbenzene (15 µg/L)

15MW5 – 2-Isopropyltoluene (17 µg/L), Chloroethane (23 µg/L), Isopropylbenzene (25 µg/L), n-Propylbenzene (23 µg/L), sec-Butylbenzene (35 µg/L), tert-Butylbenzene (12 µg/L)

15MW7 – 1,2,4-Trimethylbenzene (39 µg/L), 2-Isopropyltoluene (88 µg/L), Isopropylbenzene (100 µg/L), n-Butylbenzene (97 µg/L), n-Propylbenzene (170 µg/L), sec-Butylbenzene (210 µg/L), tert-Butylbenzene (39 µg/L)

15MW8 – 2-Isopropyltoluene (11 µg/L), Isopropylbenzene (37 µg/L), n-Butylbenzene (11 µg/L), n-Propylbenzene (59 µg/L), sec-Butylbenzene (24 µg/L), tert-Butylbenzene (5.7 µg/L)

The chlorinated VOC Trichloroethene was detected at a concentrations below GQS within 15MW1 (3.5 µg/L), 15MW2 (0.54 µg/L), and 15MW4 (1.2 µg/L). The chlorinated VOCs Tetrachloroethene (0.32 µg/L), Chlorobenzene (8.1 µg/L), cis-1,2-Dichloroethene (13 µg/L), 1,4-Dichlorobenzene (0.91 µg/L), and 1,2-Dichlorobenzene (0.99 µg/L) were also detected in groundwater sample 15MW1.

SVOCs in Groundwater Above GQS:

SVOCs were detected in all eight groundwater samples at concentrations above GQS. SVOC detections above GQS were limited to those polynuclear aromatic hydrocarbons (PAHs) with a 2 per trillion standard.

Pesticides and PCBs in Groundwater Above GQS:

No pesticides or PCBs were detected in any of the groundwater samples collected at the Site.

Dissolved Metals in Groundwater Above GQS:

The dissolved concentrations of the metals Iron, Manganese and/or Sodium were detected above GQS within each of the eight groundwater samples. Dissolved metal GQS exceedances for each groundwater sample are provided below:

15MW1 – Iron (1.63 mg/L), Manganese (0.848 mg/L), Sodium (151 mg/L)

15MW2 – Iron (2.38 mg/L), Manganese (0.82 mg/L), Sodium (164 mg/L)

15MW3 –Manganese (1.21 mg/L), Sodium (203 mg/L)

15MW4 – Iron (1.26 mg/L), Manganese (1.27 mg/L), Sodium (148 mg/L)

15MW5 – Iron (2.24 mg/L), Manganese (0.529 mg/L), Sodium (131 mg/L)

15MW6 – Iron (8.33 mg/L), Manganese (0.39 mg/L), Sodium (144 mg/L)

15MW7 – Iron (4.81 mg/L), Manganese (0.471 mg/L), Sodium (113 mg/L)

15MW8 – Iron (5.27 mg/L), Sodium (74.7 mg/L)

Total Metals in Groundwater Above NYSDEC GQS:
Multiple metals were reported above standards in the unfiltered samples from all of the monitoring wells including Arsenic, Copper, Iron, Lead, Manganese, and Sodium. As demonstrated by the filtered samples, these detections are a function of suspended solids in the sample and are not representative of metals concentrations dissolved in the groundwater.

2.6.4 Analytical Results – Soil Vapor Samples

In order to determine the vapor quality in the soil beneath the Site, soil vapor samples were collected from seven soil vapor implants (SG1 through SG7) installed approximately 8 feet below grade. Analytical results were compared to the Summary of Background Levels for Selected Compounds (NYSDOH Database, Outdoor values, 2003) and NYSDOH Final Guidance on Soil Vapor Intrusion (October 2006) Matrix 1 and Matrix 2 values.

BTEX concentrations were generally low in soil vapor samples. BTEX concentrations ranged from 6.21 $\mu g/m^3$ (SG7) to 99.8 $\mu g/m^3$ (SV-4).

Chlorinated VOCs (CVOC) were detected at elevated concentrations within several of the soil vapor samples collected at the Site. Trichloroethene (TCE) was detected in all 7 soil gas samples at a maximum concentration of 1,650 $\mu g/m^3$ (SG1) and tetrachloroethane was detected within all 7 soil gas samples at a maximum concentration of 47.6 $\mu g/m^3$ (SG3).

The CVOC Carbon Tetrachloride was detected within one of the seven soil gas samples at a concentration of 0.35 $\mu g/m^3$ and 1,1,1-Trichloroethane was detected within four of the seven soil gas samples at a maximum concentration of 47.6 $\mu g/m^3$. Soil vapor results are summarized on **Table 17** and posted on **Figure 10.**

2.6.5 Data Usability Summary Report

Data validation services were provided by H&S Environmental (H&S) of Westborough, Massachusetts. H&S reported that, in general, the data are valid as reported and may be used for decision making purposes. Selected data points were qualified due to nonconformance of certain Quality Control criteria. The Data Usability Summary Reports prepared by H&S are provided in **Attachment G**.

3.0 HYDROGEOLOGIC ASSESSMENT AND PHYSICAL SETTING

3.1 Site Topography

According to the USGS topographic map for the area (Brooklyn Quadrangle), the elevation of the property ranges from 19 to 20 feet above the National Geodetic Vertical Datum (NGVD). The area topography gradually slopes downward to the north and west.

3.2 Surrounding Land Use

The area surrounding the property is highly urbanized and predominantly consists of multi-family residential buildings with mixed-use buildings (residential w/ first floor retail) along main corridors such as Driggs Avenue located at the end of the block to the north and McGuiness Boulevard, located two blocks to the east. The area is marked by late 19th and early 20th century row-houses with commercial and industrial properties interspersed throughout the residential sections. A large portion of the neighborhood to the west consists of McCarren Park, which has a track, playing fields and a public swimming pool. The Site is situated on a block (Block 2698) which has historically been utilized for heavy industry and manufacturing. Following a steady decline of manufacturing in the area from the late 1960's through the 1980's, many of the industrial properties were vacated leaving the buildings to be vandalized and become derelict. Conditions continued to decline throughout the 1980's and 1990's.

The land use in the immediate vicinity of the Site includes of a one-story manufacturing building currently occupied with an automotive repair facility (75 Eckford Street) and a 3-story commercial building currently occupied with a Polish Hall/Club (261 Driggs Avenue) to the north, a lot undergoing construction of a new 4-story apartment building (498 Leonard Street) and a one-story warehouse/manufacturing building (488 Leonard Street) to the west, multi-family row houses (62, 64 66 and 68 Eckford Street) to the east and a 10-story apartment building (55 Eckford Street) to the south. There are no daycare centers in the immediate area of the Site, however there are two daycare facilities located within a 1,200 ft radius of the Site. Two schools (Northside Charter High School and John Ericsson Middle School 126) are located at 424 Leonard Street, which is approximately 500 feet to the south.

3.3 Regional Geology / Hydrogeology

Long Island's present configuration is primarily the result of glaciation which during the Pleistocene Era, predominately that of the last ice age, the Wisconsin, which ended about ten thousand years ago. Two advances of the Wisconsin ice sheet during the Upper Pleistocene of the Quaternary Period caused the island to be blanketed with till, ice contact stratified drift, outwash deposits and deposits composed of clay, silt, sand, gravel and boulders. The terminal moraines and the north shore are composed primarily of stratified drift with some till. The area between the moraines and south of them are mostly the outwash deposits. Central and South Long Island are of the glaciofluvial origin. The Pleistocene deposits lie atop the gently-dipping Cretaceous rocks.

The bedrock was eroded to a peneplain before the overlying Cretaceous sediments were deposited; its surface shows signs of later erosion by Pleistocene glaciation in the north. Bedrock crops out in northwestern Queens County near the East River and slopes southward at about eighty (80) feet per mile. Consequently, the overlying formations form a southward-dipping wedge that attains a maximum thickness of one-thousand fifty (1,050) feet in the southeast corner of Queens County. The maximum thickness of unconsolidated deposits in Kings County is about eight-hundred (800) feet in southeast Kings.

Overlying bedrock is the Raritan Formation of Late Cretaceous age, consisting of the Lloyd Sand Member and an upper, unnamed clay member. Overlying the Raritan Formation is the Magothy Formation and Matawan Group, undifferentiated, also of Late Cretaceous age, the Jameco Gravel of Pleistocene age, the Gardiners Clay of Pleistocene age, upper Pleistocene deposits of Wisconsin age, and a generally thin soil mantle of Holocene age. Holocene beach deposits make up most of the Rockaway Peninsula and Coney Island in the south, and Holocene salt-marsh deposits underlie and fringe the south-shore bay areas. Artificial filling has been done in low and swampy shoreline areas. Because Holocene deposits occur in relative small areas of Kings and Queens and are not significant water bearers, they are not included in the geologic descriptions that follow. The four distinct formations on Long Island: The Upper Glacial, the Jameco, the Magothy and the Lloyd aquifers. They all occur in the unconsolidated materials overlying the bedrock.

3.4 Site Geology / Hydrogeology

The geologic setting of Long Island is well documented and consists of crystalline bedrock overlain by layers of unconsolidated deposits. According to geologic maps of the area created by the United States Geologic Survey (USGS), the bedrock in this area of Brooklyn is an igneous intrusive classified as the Ravenswood grano-diorite of middle Ordovician to middle Cambrian age. Unconsolidated sediments overlie the bedrock and consist of Pleistocene aged sand, gravel and silty clays, deposited by glacial-fluvial activity. Non-native fill materials consisting of dredge spoils, rubble and / or other materials have historically been used to reinforce and extend shoreline areas and to raise and improve the drainage of low lying areas.

Soil at the Site consists of historic fill material that extends to depths as great as 13 feet below grade in some areas followed by grey silty clay. According to the USGS topographic map for the area (Brooklyn Quadrangle), the elevation of the property is approximately 14 feet above mean sea level. The area topography gradually slopes downward to the north and west.

Groundwater occurs beneath the Site at a depth of 11 to 12 feet below sidewalk grade (**Table 2**) under water table conditions. Regional groundwater flow is to the northwest and the groundwater flow at the Site was calculated to be towards the north-northwest (**Figure 11**).

4.0 NATURE AND EXTENT OF CONTAMINATION

4.1 Identification of Source Areas

4.1.1 Chlorinated VOCs in Soil

The chlorinated VOC Trichloroethene was detected above Unrestricted Use SCOs within shallow soil samples collected from the 0 to 2 ft and 2 to 4 ft intervals across the majority of the Site. The highest concentrations were detected within the rear of the building within soil samples 15SB1 (2-4) (6,600 μg/kg), 15SB2 (0-2) (4,000 μg/kg), and 15SB10 (0-2) (2,100 μg/kg). Trichloroethylene was not detected above the laboratory reporting limit (RL) within any of the RI soil samples retained at the groundwater interface (11 to 13 ft) or from the native soil layer (18 to 20 ft), with the exception of soil sample 15SB2(18-20) (3.8 μg/kg). It should be noted that the RL for each of the soil samples from the 11 to 13 ft interval was significantly higher due to elevated concentrations of petroleum related VOCs. Trichloroethene was detected within a soil sample retained from the water table interface during the subsurface investigation performed in February 2015. Trichloroethene was detected at a concentration of 1,100 μg/kg within soil sample B2(10-12ft).

4.1.2 Petroleum VOCs in Soil

A 5 to 6 ft smear zone of petroleum contaminated soil is present across the Site at the groundwater interface. Petroleum related VOCs were detected above Unrestricted Use SCOs and Protection of Groundwater SCOs within six of the ten soil samples retained from the groundwater interface (11 to 13 feet below grade) during the RI. No petroleum related VOCs were detected above Restricted Residential Use SCOs. Petroleum related VOCs were not detected above Unrestricted Use SCOs or Protection of Groundwater SCOs within any of the clean native soil samples retained from the 18 to 20 ft interval, or the soil samples collected from the historic fill layer, representing the 0 to 2 ft or 2 to 4 ft intervals.

Evidence of a gasoline underground storage tank was observed in the western half of the Site (front). The tank is located approximately 30ft from the western property line (Eckford Street) and 30ft from the southern property line. The tank, tank piping and/or former dispenser may be the source of the petroleum contamination. However, no PID or olfactory evidence of petroleum contamination was noted within the soil boring performed immediately adjacent to the tank until the groundwater interface was encountered. Since no shallow petroleum contaminated soil was encountered within any of the soil borings performed at the Site, the petroleum contaminated soil present at the groundwater interface is likely associated with the spill (NYSDEC Spill No. 1205075) on the adjacent property to the rear/west. NYSDEC notes provided within the EDR Radius Map Report (see Phase I Report) indicated ten 1,000-gallon underground storage tanks were removed from the rear of the property in February of 2015 and test pits excavated at the property and monitoring wells installed on the property noted free product on the groundwater surface.

SVOCs including Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)flouranthene, Benzo(k)fluoranthene, Chrysene, and Indeno(1,2,3-cd)pyrene were all reported above Restricted Residential Use SCOs within the soil sample collected from the water table interface from soil boring B2 during the February 2015 Subsurface Investigation. Historic fill material was not observed within the soil boring at the water table interface, so the total SVOC concentration in soil sample B2(11-13) (165,300 μg/kg) is believed to be associated with a fuel oil or other petroleum release.

4.1.3 Historic Fill Material

Historic fill material has been identified across the Site to depths as great as 13 feet below grade. The historic fill material contains SVOCs above Restricted Residential Use and Commercial Use SCOs, the metals arsenic, barium, copper, lead and mercury above Commercial Use SCOs, cadmium, chromium, nickel and zinc above Unrestricted Use and/or Restricted Residential Use SCOs.

4.1.4 Elevated Metals in Deep Native Soil

The metals arsenic (maximum of 35.8 ppm) and mercury (maximum of 12.1 ppm) were detected above Commercial Use SCOs within several of the soil samples retained from the deep native soil layer (18-20ft). The metal lead (maximum of 529 mg/kg) was detected above Restricted Residential Use SCOs, and the metal zinc (359 mg/kg) was detected above Unrestricted Use SCOs with the deep soil samples retained from the native soil layer. Soil at the 18-20ft interval was found to consist primarily of a grey silty clay with pieces of shells and/or organic matter such as reeds or peat moss. Prior to being backfilled in the late 1800's, the Site and most of the adjacent properties to the west had a much lower elevation because the area was part of the Bushwick Inlet (formerly known as Bushwick Creek). The elevated metals detected within the soil samples retained from the 18-20ft interval are likely associated with sediment associated with the former creek.

4.2 Groundwater Impacts

4.1.1 Chlorinated VOCs in Groundwater

The chlorinated VOC Trichloroethene was detected at a concentrations below GQS within groundwater samples 15MW1 (3.5 µg/L), 15MW2 (0.54 µg/L), and 15MW4 (1.2 µg/L), which were all collected from the rear (western) and southern end of the Site. The chlorinated VOCs Tetrachloroethene (0.32 µg/L), Chlorobenzene (8.1 µg/L), cis-1,2-Dichloroethene (13 µg/L), 1,4-Dichlorobenzene (0.91 µg/L), and 1,2-Dichlorobenzene (0.99 µg/L) were also detected in groundwater sample 15MW1 which was collected from the southwestern corner (rear) of the Site. These chlorinated VOCs were detected in shallow soil samples (0 to 2 and 2 to 4 feet below grade) collected from the rear of the Site during the RI, and within a deeper soil sample (10 to 12 feet below grade) collected during the February 2015 Subsurface Investigation, which suggests the CVOCs detected in groundwater may be associated with the CVOCs detected in soil within the rear of the Site.

4.1.2 Petroleum VOCs in Groundwater

Petroleum related VOCs were detected above GQS in six of the eight groundwater samples collected at the Site. The concentrations were fairly low, and evenly distributed across the Site. The absence of petroleum contamination within soil above the groundwater interface and the low, evenly distributed concentrations of petroleum related VOCs in groundwater suggests an off-Site source.

SVOC detections above GQS were limited to those polynuclear aromatic hydrocarbons (PAHs) with a 2 parts per trillion standard. Exceedances of the part per trillion standards for PAHs were reported in all eight groundwater samples. SVOCs reported in the parts per trillion range are a function of the laboratory's ability to achieve extremely low detection limits and general background conditions.

No pesticides or PCBs were detected above GQS within any of the groundwater samples collected at the Site. The dissolved metals detected above GQS (Iron, Manganese, and Sodium) within the groundwater samples collected at the Site are consistent with general groundwater quality throughout the area.

4.3 Soil-Vapor Impacts

BTEX concentrations were generally low within the soil vapor samples. BTEX concentrations ranged from 6.21 µg/m^3 (SG7) to 99.8 µg/m^3 (SV-4).

Chlorinated VOCs (CVOC) were detected at elevated concentrations within several of the soil vapor samples collected at the Site. Trichloroethene (TCE) was detected in all 7 soil gas samples at a maximum concentration of 1,650 µg/m^3 (SG1) and tetrachloroethane was detected within all 7 soil gas samples at a maximum concentration of 47.6 µg/m^3 (SG3). The highest TCE concentrations were detected in SG1 (1,650 µg/m^3) and SG6 (245 µg/m^3). The elevated TCE concentrations in soil vapor samples collected from the rear of the building correlates with the elevated TCE concentrations detected in shallow soil samples collected from the rear of the building.

The CVOC Carbon Tetrachloride was detected within one of the seven soil gas samples at a concentration of 0.35 µg/m^3 and 1,1,1-Trichloroethane was detected within four of the seven soil gas samples at a maximum concentration of 47.6 µg/m^3.

4.4 Site Conceptual Model

Contamination at the Site consists of historic fill material that contains metals and SVOCs above Unrestricted Use, Restricted Residential Use, and/or Commercial Use SCOs to depths as great a 13 feet below grade, CVOC contaminated soil in the rear of the Lot from grade to depths of at least 12 feet below grade, and a 5 to 6 foot thick smear zone of petroleum impacted soil at the groundwater interface (approximately 10 to 15 feet below grade).

The historic fill material was likely imported to the Site to raise the grade and backfill a former building's cellar prior to construction of the recently demolished one-story industrial building.

The CVOC contaminated soil at the Site is likely associated with the historic use of Trichloroethene at the Site. From approximately 1959 to 1998, Carter Spray Finishing Corp. utilized two 275-gallon aboveground storage tanks containing Trichloroethene for metal finishing purposes. The most likely release scenario would include a surface spill(s) during use. The nature and extent of the soil contamination is indicative of a limited surface spill which migrated through cracks or other voids in the concrete floor. The timing and scenario of the release are unknown. In any case, the Trichloroethene contamination appears to be limited to the rear half of the Site, and did not migrate much as indicated by the low CVOC concentrations in groundwater. Off-gassing is occurring from the residually contaminated soil which resulted in elevated concentrations of Trichloroethene in soil vapor samples collected from the rear of the Site.

A 5 to 6 ft smear zone of petroleum contaminated soil is present across the Site at the groundwater interface. Petroleum related VOCs were detected above Unrestricted Use SCOs and Protection of Groundwater SCOs within six of the ten soil samples retained from the groundwater interface (11 to

13 feet below grade) during the RI. Evidence of a gasoline underground storage tank was observed in the central rear half of the Site. The tank, tank piping and/or former dispenser may be the source of the petroleum contamination. However, no PID or olfactory evidence of petroleum contamination was noted within the soil boring performed immediately adjacent to the tank until the groundwater interface was encountered. Since no shallow petroleum contaminated soil was encountered within any of the soil borings performed at the Site, the petroleum contaminated soil present at the groundwater interface is likely associated with the spill (NYSDEC Spill No. 1205075) on the adjacent property to the rear/west. NYSDEC notes provided within the EDR Radius Map Report (see Phase I Screening Report included in **Attachment A**) indicated ten 1,000-gallon underground storage tanks were removed from the rear of the property in February of 2015 and test pits excavated on the adjacent property and monitoring wells installed on the property noted free product on the groundwater surface.

Elevated concentrations of the metals arsenic, lead, mercury and zinc were detected within soil samples retained from the 18-20ft interval. Soil at this depth was found to consist primarily of a grey silty clay with pieces of shells and/or organic matter such as reeds or peat moss. Prior to being backfilled in the late 1800's, the Site and most of the adjacent properties to the west had a much lower elevation because the area was part of the Bushwick Inlet (formerly known as Bushwick Creek). The elevated metals detected within the soil samples retained from the 18-20ft interval are likely associated with sediment associated with the former creek.

5.0 QUALITATIVE EXPOSURE ASSESSMENT

The objective of the qualitative exposure assessment under the Brownfields Cleanup Program (BCP) is to identify potential receptors to the contaminants of concern (COC) that are present at, or migrating from, the Site. The identification of exposure pathways describes the route that the COC takes to travel from the source to the receptor. An identified pathway indicates that the potential for exposure exists; it does not imply that exposures actually occur. An exposure pathway has five elements; a contaminant source, release and transport mechanisms, point of exposure, route of exposure and a receptor population.

The potential exposure pathways identified below, represent both current and future exposure scenarios.

5.1 Contaminant Source

5.1.1 Petroleum VOCs in Soil/Groundwater

A 5 to 6 foot smear zone of petroleum contaminated soil was encountered at the groundwater interface across the Site. The petroleum contamination at the groundwater interface is likely associated with the adjacent property to the west (rear). Ten 1,000-gallon underground storage tanks were recently removed near the property line that separates the Site from the adjacent property to the west. Test pits excavated on the adjacent property and monitoring wells installed on the property noted free product on the groundwater surface.

5.1.2 Chlorinated VOCs in Soil/Groundwater/Soil Gas

CVOC contaminated soil was detected within shallow soil samples (0 to 2 feet and 2 to 4 feet below grade) collected from the rear half of the Site during the RI, and one of the deeper soil samples (10 to 12 feet below grade) collected from the rear during the February 2015 Subsurface Investigation. The CVOCs detected within the soil samples are likely associated with the historic use of Trichloroethene at the Site. From approximately 1959 to 1998, Carter Spray Finishing Corp. utilized two 275-gallon aboveground storage tanks containing Trichloroethene. Trichloroethene contamination appears to be limited to the rear half of the Site, and did not migrate much as indicated by the low CVOC concentrations in groundwater. Off-gassing is occurring from the residually contaminated soil which resulted in elevated concentrations of Trichloroethene in soil vapor samples collected from the rear of the Site.

5.1.3 Historic Fill Material

PAHs and other metals such as Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Mercury, Nickel and Zinc were also present at concentrations above Unrestricted Use, Restricted Residential Use and/or Commercial SCOs in fill material throughout the Site to depths as great as 13 feet below grade.

5.1.4 Elevated Metals in Deep Native Soil

The elevated concentrations of the metals arsenic, lead, mercury and zinc within native soil samples retained from the 18-20ft interval are not believed to be associated with a spill/release. The elevated concentrations are likely present in the sediment of the former Bushwick Inlet (formerly known as Bushwick Creek) which was historically present in the area of the Site.

5.2 Contaminant Release and Transport Mechanism

Historic fill material with elevated concentrations of SVOCs and metals is present across the Site to depths as great as 13 feet below grade. The contaminants detected within the historic fill material are not believed to be associated with a spill/release, but are likely associated with the source of material originally brought in to backfill/raise the property.

The petroleum contamination may be associated with a gasoline underground storage tank located in central rear portion of the Site, the former piping or dispenser associated with the tank, or another unidentified tank. However, no PID or olfactory evidence of petroleum contamination was noted within the soil boring performed immediately adjacent to the tank until the groundwater interface was encountered. Since no shallow petroleum contaminated soil was encountered within any of the soil borings performed at the Site, the petroleum contaminated soil present at the groundwater interface is likely associated with the spill (NYSDEC Spill No. 1205075) on the adjacent property to the rear/west. NYSDEC notes provided within the EDR Radius Map Report (see Phase I Report) indicated ten 1,000-gallon underground storage tanks were removed from the rear of the property in February of 2015 and test pits excavated on the adjacent property and monitoring wells installed on the property noted free product on the groundwater surface. There does not appear to be any significant transfer of petroleum VOCs to the vapor phase.

CVOCs were detected within shallow soil samples (0 to 2 feet and 2 to 4 feet below grade) collected from the rear of the Site and may be the source of CVOC contamination detected in groundwater samples collected at the Site. CVOCs present in on-Site soils are volatilizing to soil vapor contributing to the elevated levels of CVOCs detected within the soil vapor samples collected from the rear of the Site (SG1 and SG6).

5.3 Point of Exposure, Route of Exposure and Potentially Exposed Populations

Potential On-Site Exposures: Remediation workers and construction workers engaged in the excavation of impacted and non-impacted soil at the Site may be exposed to petroleum VOCs / SVOCs, CVOCs, and heavy metals through several routes. Workers excavating impacted soil may be exposed to VOCs, SVOCs, and heavy metals through inhalation, ingestion and dermal contact. A site specific Health and Safety Plan has been developed to identify and minimize the potential hazards to on-site workers. Site trespassers could also be exposed to impacted soil during excavation, however, security measures including an 8 ft high construction fence and 24 hr security will minimize potential exposure through this route. Potential vapor intrusion is a concern for future building occupants of proposed building, but remediation of the source area and installation of the cellar below/at the groundwater interface is expected to greatly reduce if not eliminate this potential.

Potential Off-Site Exposures: Off-Site residents could also be exposed to dust or vapors during the excavation of impacted soil. A site-specific Community Air Monitoring Plan has been developed to identify and minimize the potential for off-site exposure to residents through continuous air monitoring during excavation activity.

The entire area is serviced by the New York City Water System which distributes water from the Croton Reservoir system. Since there are no public or private potable supply wells in the area, exposure from contact with tap water is not a concern. Off-site exposure is therefore limited to vapor intrusion from CVOCs. Since the highest concentrations in soil vapor were reported in close proximity to the impacted soil area, there appears to be a potential for off-Site exposure through soil vapor intrustion. This potential will be further reduced following the removal of the source area under the planned redevelopment of the Site.

Potential Off-Site Environmental Impacts: Since petroleum VOCs and chlorinated VOCs in groundwater may be migrating beneath the Site at low concentrations in a north-northwesterly direction, the groundwater to surface water discharge pathway was evaluated. The nearest surface water to the Site is Bushwick Inlet located approximately 2,800 feet to the northwest. Based upon the concentrations of contaminants currently in groundwater beneath the Site, there are no expected impacts to surface water environments from contaminants migrating from the Site.

6.0 CONCLUSIONS AND RECOMENDATIONS

Subsurface soil at the Site consists of a non-native fill material to a depth of approximately 13 feet below grade. PAHs and metals such as Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Mercury, Nickel and Zinc were detected above Unrestricted Use, Restricted Residential Use, and/or Commercial SCOs within the soil samples collected from the historic fill material. A native grey (wet) silty clay is present below the fill material to a depth of at least 20 feet below grade. Some borings also noted the presence of organic plant matter and/or shells at depths of approximately 15 to 20 feet below grade. Groundwater at the Site is present at a depth of approximately 12 to 13 feet below sidewalk grade and regional groundwater flow is to the northwest. Groundwater flow at the Site was determined to be towards the north-northwest.

A 5 to 6 foot thick smear zone of petroleum impacted soil was detected at the groundwater interface. Petroleum related VOCs were also detected above GQS in six of the eight groundwater samples collected at the Site. The concentrations of petroleum related VOCs in groundwater were fairly low, and evenly distributed across the Site. An absence of petroleum contaminated soil above the groundwater interface indicates the petroleum contamination in soil/ground water is associated with NYSDEC Spill No. 1205075, assigned to the adjacent property to the rear/west. Ten 1,000-gallon underground storage tanks were recently removed near the property line that separates the Site from the adjacent property to the west. Test pits excavated on the adjacent property and monitoring wells installed on the property noted free product on the groundwater surface.

The CVOC Trichloroethene was detected above Unrestricted Use SCOs within shallow soil samples (0 to 2 feet and 2 to 4 feet below grade) collected from the rear of the Site during RI, and within one of the soil samples retained from the groundwater interface during the February 2015 Subsurface Investigation. Therefore, the Trichloroethene detected with soil samples collected from the rear of the Site is likely the source of the low level CVOC (Trichloroethene, Chloroethane, cis-1,2-Dichloroethene) contamination detected in groundwater samples collected at the Site. Trichloroethene present in on-Site soil in the rear of the Site is volatilizing to soil vapor contributing to the elevated levels of Trichloroethene detected within soil vapor samples SG1 (1,650 $\mu g/m^3$) and SG6 (245 $\mu g/m^3$) which were also collected from the rear of the Site. These Trichloroethylene (TCE) concentrations are above NYSDOH mitigation values.

Arsenic and mercury were detected above Commercial Use SCOs, and lead and zinc were detected above Unrestricted Use SCOs within soil samples retained from the native soil layer at a depth of approximately 18 to 20 feet below grade. The elevated metals concentrations are not believed to be associated with a spill/release. The elevated concentrations are likely present in the sediment of the former Bushwick Inlet (formerly known as Bushwick Creek) which was historically present in the area of the Site.

The qualitative exposure assessment identified potential completed routes of exposure to construction workers and remediation workers through inhalation, ingestion and dermal contact of petroleum compounds and heavy metals during excavation activities. The Health and Safety Plan prepared for the site identifies such exposures and provides instructions for on-site workers to minimize potential exposure. Occupants in the proposed on-Site commercial buildings may be exposed to CVOCs through the vapor intrusion pathway, if remedial action is not taken to remove the source.

The exposure assessment indicated a limited potential exposure to residents and commercial workers in adjacent buildings which would be reduced further following the removal of the identified source areas.

Potential environmental impacts through the groundwater to surface water discharge were considered unlikely based on the concentrations of VOCs in groundwater.

Recommendations include removal of the UST(s), excavation and disposal of all petroleum and chlorinated VOC contaminated soil, and proper handling and disposal of all soils excavated for structural elements of the new building. This work would be performed under an approved Remedial Action Work Plan which includes a Soil Management Plan, a Construction Health and Safety Plan and a Community Air Monitoring Plan.

Potential soil vapor impact should be re-evaluated following the completion of remedial activities to determine if conditions improve to the point where active mitigation is unnecessary. Further evaluation of vapor intrusion can also be performed following implementation of the RAWP to determine if the design elements of a subslab depressurization system should then be incorporated into the Remedial Action Work Plan for the Site as a contingency, should the potential for vapor intrusion remain following the removal of the impacted soils.

7.0 REFERENCES

6 NYCRR Part 375 Environmental Remediation Programs Subparts 375-1, 375-3 and 375-6

Environmental Business Consultants, *Phase I Environmental Site Assessment Screening* – May 2015.

Environmental Business Consultants, *Phase II Subsurface Investigation Data Summary* – May 2015.

NYSDEC, Division of Environmental Remediation, May 2004, *Draft Brownfield Program Cleanup Guide.*

NYSDEC, Division of Environmental Remediation, December 2002, *DER-10, Technical Guidance for Site Investigation and Remediation.*

NYSDEC, Division of Environmental Remediation, December 14, 2006, *6 NYCRR Part 375, Environmental Remediation Programs, subparts 375-1 to 375-4 & 375-6.*

NYSDEC, Division of Water, June 1998, Addendum April 2000, *Technical and Administrative Guidance Series 1:1:1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.*

NYSDOH, Center for Environmental Health, October 2006, *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York.*

TABLES

TABLE 1
SUMMARY OF
SAMPLING PROGRAM RATIONALE AND ANALYSIS

Matrix	Location	Number of Samples	Rationale for Sampling	Laboratory Analysis
Subsurface soil (0 to 20 feet)	7 soil borings throughout the Site. Samples collected at 0-2 ft, 11-13ft, and 18-20 ft intervals (15SB2, 15SB4, 15SB6-15SB10).	21	To evaluate the extent of soil impact and obtain information on soil quality at the Site.	VOCs EPA Method 8260B, SVOCs EPA Method 8270, pesticide / PCBs EPA Method 8081/8082, TAL metals, & SVOC TICs.
Subsurface soil (0 to 20 feet)	2 soil borings throughout the Site. Samples collected at 2-4ft, 11-13ft, and 18-20ft intervals (15SB1 and 15SB3)	6	To evaluate the extent of soil impact and obtain information on soil quality at the Site.	VOCs EPA Method 8260B, SVOCs EPA Method 8270, pesticide / PCBs EPA Method 8081/8082, TAL metals, Organophosphates, Chlorinated Herbicides, VOC TICs, & SVOC TICs, .
Subsurface soil (0 to 25 feet)	1 soil boring conducted on Site. Samples collected at 2-4ft, 11-13ft, and 22-24ft intervals (15SB5)	3	To evaluate the extent of soil impact and obtain information on soil quality at the Site.	VOCs EPA Method 8260B, SVOCs EPA Method 8270, pesticide / PCBs EPA Method 8081/8082, TAL metals, Organophosphates, Chlorinated Herbicides, VOC TICs, & SVOC TICs, .
Total (Soils)		30		
Groundwater (water table)	From 8 monitoring wells across the Site.	8	To assess groundwater quality at the Site.	VOCs EPA Method 8260B, SVOCs EPA Method 8270, pesticide / PCBs EPA Method 8081/8082, Total metals & Dissolved metals.
Total (Groundwater)		8		
Soil Gas (SG1-SG7 9 ft below existing grade)	7 soil gas implants installed across the Site.	7	Evaluate soil gas across the Site.	VOCs EPA Method TO15
Total (Soil Gas)		7		
MS/MSD	Matrix spike and Matrix spike duplicates at the rate 5%.	2	To meet requirements of QA / QC program	VOCs EPA Method 8260B, SVOCs EPA Method 8270, pesticide / PCBs EPA Method 8081/8082, Total metals & Dissolved metals.
Trip Blanks	One laboratory prepared trip blank to accompany samples each time they are delivered to the laboratory.	2	To meet requirements of QA / QC program	VOCs EPA Method 8260B
Total (QA / QC Samples)		4		

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Table 2
Well Survey Data

Well No.	Well Diameter (in)	Total Well Depth (ft)	Screened Interval (ft)	Survey Reading	Casing Elevation	DTW 12/22/2015	DTP	PT	GW ELV 12/22/2015
MW1	1	20	10 to 20	**5.070**	**94.93**	**11.24**	**-**	**-**	**83.69**
MW2	1	20	10 to 20	**5.000**	**95**	**11.31**	**-**	**-**	**83.69**
MW3	1	20	10 to 20	**5.220**	**94.78**	**11.12**	**-**	**-**	**83.66**
MW4	1	20	10 to 20	**4.100**	**95.9**	**12.21**	**-**	**-**	**83.69**
MW5	1	20	10 to 20	**4.040**	**95.96**	**12.30**	**-**	**-**	**83.66**
MW6	1	20	10 to 20	**3.610**	**96.39**	**12.75**	**-**	**-**	**83.64**
MW7	1	20	10 to 20	**2.870**	**97.13**	**13.42**	**-**	**-**	**83.71**
MW8	1	20	10 to 20	**2.410**	**97.59**	**13.92**	**-**	**-**	**83.67**

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TABLE 3A
Soil Analytical Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB1						15SB2						15SB3						15SB4						15SB5					
			(2-4')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')		(2-4')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')		(2-4')		(11-13')		(22-24')	
			12/16/2015		12/16/2015		12/16/2015		12/17/2015		12/17/2015		12/17/2015		12/16/2015		12/16/2015		12/16/2015		12/17/2015		12/17/2015		12/17/2015		12/16/2015		12/16/2015		12/16/2015	
			µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachlorothane			< 14	14	< 8900	8,900	< 5.5	5.5	< 16	16	< 14000	14,000	< 90	90	< 19	19	< 6.2	6.2	< 8.8	8.8	< 8.7	8.7	< 4700	4,700	< 21	21	< 20	20	< 6900	6,900	< 16	16
1,1,1-Trichloroethane	680	100,000	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 680	680	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 680	680	< 5.2	5.2	< 5.1	5.1	< 680	680	< 4.0	4.0
1,1,2,2-Tetrachloroethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
1,1,2-Trichloroethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
1,1-Dichloroethane	270	26,000	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
1,1-Dichloroethene	330	100,000	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
1,1-Dichloropropene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
1,2,3-Trichlorobenzene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
1,2,3-Trichloropropane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
1,2,4-Trichlorobenzene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
1,2,4-Trimethylbenzene	3,600	52,000	< 3.5	3.5	< 3500	3,500	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	**530**	3,600	< 5.2	5.2	< 220	220	**1,500**	3,500	< 4.0	4.0
1,2-Dibromo-3-chloropropane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
1,2-Dibromomethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
1,2-Dichlorobenzene	1,100	100,000	< 3.5	3.5	< 1000	1,000	< 5.5	5.5	< 3.9	3.9	< 1100	1,100	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 1100	1,100	< 5.2	5.2	< 220	220	< 1000	1,000	< 4.0	4.0
1,2-Dichloroethane	20	3,100	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 20	20	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
1,2-Dichloropropane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
1,3,5-Trimethylbenzene	8,400	52,000	< 3.5	3.5	< 8000	8,000	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
1,3-Dichlorobenzene	2,400	4,900	< 3.5	3.5	< 2000	2,000	< 5.5	5.5	< 3.9	3.9	< 2400	2,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 2400	2,400	< 5.2	5.2	< 220	220	< 1000	1,000	< 4.0	4.0
1,3-Dichloropropane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
1,4-Dichlorobenzene	1,800	13,000	< 3.5	3.5	< 1800	1,800	< 5.5	5.5	< 3.9	3.9	< 1800	1,800	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 1800	1,800	< 5.2	5.2	< 220	220	< 1000	1,000	< 4.0	4.0
1,4-dioxane	100	13,000	< 70	70	< 180000	######	< 98	98	< 79	79	< 69000	69,000	< 450	450	< 96	96	< 100	100	< 100	100	< 43	43	< 93000	93,000	< 100	100	< 100	100	< 140000	######	< 80	80
2,2-Dichloropropane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
2-Chlorotoluene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
2-Hexanone (Methyl Butyl Ketone)			< 18	18	< 45000	45,000	< 27	27	< 20	20	< 17000	17,000	< 110	110	< 24	24	< 31	31	< 44	44	< 11	11	< 23000	23,000	< 26	26	< 25	25	< 35000	35,000	< 20	20
2-Isopropyltoluene			< 3.5	3.5	**6,300**	8,900	< 5.5	5.5	< 3.9	3.9	**7,800**	6,900	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	**7,100**	4,700	< 5.2	5.2	< 220	220	**11,000**	6,900	**0.92**	4.0
4-Chlorotoluene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
4-Methyl-2-Pentanone			< 18	18	< 45000	45,000	< 27	27	< 20	20	< 17000	17,000	< 110	110	< 24	24	< 31	31	< 44	44	< 11	11	< 23000	23,000	< 26	26	< 25	25	< 35000	35,000	< 20	20
Acetone	50	100,000	**9.3**	35	**10,000**	89,000	**210**	55	< 39	39	< 34000	34,000	**630**	230	**14**	48	**29**	50	**170**	88	**3.9**	22	< 47000	47,000	**32**	50	< 50	50	< 69000	69,000	**47**	40
Acrolein			< 14	14	< 36000	36,000	< 22	22	< 16	16	< 14000	14,000	< 90	90	< 19	19	< 25	25	< 35	35	< 8.7	8.7	< 19000	19,000	< 21	21	< 20	20	< 28000	28,000	< 16	16
Acrylonitrile			< 7.0	7.0	< 36000	36,000	< 11	11	< 16	16	< 14000	14,000	< 90	90	< 19	19	< 12	12	< 35	35	< 8.7	8.7	< 9300	9,300	< 21	21	< 20	20	< 14000	14,000	< 16	16
Benzene	60	4,800	**0.45**	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Bromobenzene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
Bromochloromethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Bromodichloromethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Bromoform			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Bromomethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Carbon Disulfide			< 3.5	3.5	< 8900	8,900	**2.8**	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	**1.2**	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	**3.1**	4.0
Carbon tetrachloride	760	2,400	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 760	760	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 690	690	< 4.0	4.0
Chlorobenzene	1,100	100,000	< 3.5	3.5	**8,000**	8,900	< 5.5	5.5	< 3.9	3.9	< 1100	1,100	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 1100	1,100	< 5.2	5.2	< 5.1	5.1	< 1000	1,000	< 4.0	4.0
Chloroethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	**3,300**	6,900	< 4.0	4.0
Chloroform	370	49,000	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 370	370	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	**0.63**	5.1	< 6900	6,900	< 4.0	4.0
Chloromethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
cis-1,2-Dichloroethene	250	100,000	**430**	300	**1,900**	8,900	**4.1**	5.5	**450**	360	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
cis-1,3-Dichloropropene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Dibromochloromethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Dibromomethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Dichlorodifluoromethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Ethylbenzene	1,000	41,000	< 3.5	3.5	**2,900**	8,900	< 5.5	5.5	< 3.9	3.9	< 1000	1,000	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 1000	1,000	< 5.2	5.2	< 5.1	5.1	< 1000	1,000	< 4.0	4.0
Hexachlorobutadiene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	< 6900	6,900	< 4.0	4.0
Isopropylbenzene			< 3.5	3.5	**4,800**	8,900	< 5.5	5.5	< 3.9	3.9	**570**	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	**6,600**	4,700	< 5.2	5.2	< 220	220	**1,700**	6,900	< 4.0	4.0
m&p-Xylenes	260	100,000	< 3.5	3.5	**5,700**	8,900	< 5.5	5.5	**110**	360	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Methyl Ethyl Ketone (2-Butanone)	120	100,000	< 21	21	< 54000	54,000	**55**	33	< 24	24	< 21000	21,000	**200**	140	< 29	29	< 37	37	**37**	53	< 13	13	< 28000	28,000	**8.7**	31	< 30	30	< 42000	42,000	**11**	24
Methyl t-butyl ether (MTBE)	930	100,000	< 7.0	7.0	< 18000	18,000	**1.4**	11	< 7.9	7.9	< 930	930	< 45	45	< 9.6	9.6	**1.2**	12	**1.9**	18	< 4.3	4.3	< 930	930	< 10	10	< 10	10	< 830	830	< 8.0	8.0
Methylene chloride	50	100,000	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Naphthalene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 220	220	**1,600**	6,900	< 4.0	4.0
n-Butylbenzene	12,000	100,000	< 3.5	3.5	**10,000**	8,900	< 5.5	5.5	< 3.9	3.9	**5,900**	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	**2,000**	4,700	< 5.2	5.2	< 220	220	**6,300**	6,900	< 4.0	4.0
n-Propylbenzene	3,900	100,000	< 3.5	3.5	**4,800**	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	< 6.2	6.2	< 570	570	< 2.2	2.2	**12,000**	4,700	< 5.2	5.2	< 220	220	**2,600**	3,900	< 4.0	4.0
o-Xylene	260	100,000	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
p-Isopropyltoluene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 370	370	**0.63**	6.2	< 570	570	< 2.2	2.2	< 4700	4,700	**79**	340	< 220	220	< 6900	6,900	< 4.0	4.0
sec-Butylbenzene	11,000	100,000	< 3.5	3.5	**18,000**	8,900	< 5.5	5.5	< 3.9	3.9	**15,000**	6,900	< 23	23	< 370	370	**0.83**	6.2	< 570	570	< 2.2	2.2	**19,000**	4,700	< 5.2	5.2	< 220	220	**26,000**	6,900	**2**	4.0
Styrene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
tert-butyl alcohol			< 70	70	< 180000	######	< 110	110	< 79	79	< 69000	69,000	< 450	450	< 96	96	< 120	120	< 180	180	< 43	43	< 93000	93,000	< 100	100	< 100	100	< 140000	######	< 80	80
tert-Butylbenzene	5,900	100,000	< 3.5	3.5	**3,400**	5,000	< 5.5	5.5	< 3.9	3.9	**3,200**	3,000	< 23	23	< 370	370	**2.6**	6.2	< 570	570	< 2.2	2.2	**3,400**	4,700	< 5.2	5.2	< 220	220	**6,100**	6,900	**0.6**	4.0
Tetrachloroethene	1,300	19,000	**120**	300	< 1300	1,300	< 5.5	5.5	**350**	360	< 1300	1,300	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	**70**	190	< 1300	1,300	< 5.2	5.2	**90**	220	< 1200	1,200	< 4.0	4.0
Tetrahydrofuran (THF)			< 7.0	7.0	< 18000	18,000	< 11	11	< 7.9	7.9	< 6900	6,900	< 45	45	< 9.6	9.6	< 12	12	< 18	18	< 4.3	4.3	< 9300	9,300	< 10	10	< 10	10	< 14000	14,000	< 8.0	8.0
Toluene	700	100,000	< 3.5	3.5	< 8900	8,900	< 5.5	5.5	**360**	360	< 700	700	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	**23**	190	< 700	700	< 5.2	5.2	< 5.1	5.1	< 700	700	< 4.0	4.0
trans-1,2-Dichloroethene	190	100,000	**1.2**	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
trans-1,3-Dichloropropene			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
trabs-1,4-dichloro-2-butene			< 7.0	7.0	< 18000	18,000	< 11	11	< 7.9	7.9	< 6900	6,900	< 45	45	< 750	750	< 12	12	< 1100	1,100	< 4.3	4.3	< 9300	9,300	< 10	10	< 430	430	< 14000	14,000	< 8.0	8.0
Trichloroethene	470	21,000	**6,600**	300	< 8900	8,900	< 5.5	5.5	**4,000**	360	< 470	470	**3.8**	23	**1.1**	4.8	< 6.2	6.2	< 8.8	8.8	**140**	190	< 470	470	< 5.2	5.2	**780**	220	< 470	470	< 4.0	4.0
Trichlorofluoromethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Trichlorotrifluoroethane			< 3.5	3.5	< 8900	8,900	< 5.5	5.5	< 3.9	3.9	< 3400	3,400	< 23	23	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Vinyl Chloride	20	900	**1**	3.5	< 8900	8,900	**1.4**	5.5	< 3.9	3.9	< 3400	3,400	< 20	20	< 4.8	4.8	< 6.2	6.2	< 8.8	8.8	< 2.2	2.2	< 4700	4,700	< 5.2	5.2	< 5.1	5.1	< 6900	6,900	< 4.0	4.0
Total BTEX Concentration			**0.45**		**8600**		**0**		**470**		**0**		**0**		**0**		**0**		**0**		**23**		**0**		**0**		**0**		**0**		**0**	
Total VOCs Concentration			**7161.95**		**75800**		**274.7**		**5270**		**32470**		**833.8**		**236.9**		**35.46**		**208.9**		**236.9**		**50630**		**119.7**		**870.63**		**60100**		**64.62**	

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

TABLE 3B
Soil Analytical Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB6						15SB7						15SB8						15SB9						15SB10						Duplicate	
			(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		12/17/2015 µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachlorothane			< 32	32	< 9700	9,700	< 26	26	< 16	16	< 7900	7,900	< 1000	1,000	< 13	13	< 19000	19,000	< 24	24	< 1100	1,100	< 10	10	< 7.6	7.6	< 13	13	< 1700	1,700	< 55	55	< 9.9	9.9
1,1,1-Trichloroethane	680	100,000	< 8.1	8.1	< 680	680	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	**34**	180	< 680	680	< 5.9	5.9	**56**	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
1,1,2,2-Tetrachloroethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,1,2-Trichloroethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
1,1-Dichloroethane	270	26,000	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 270	270	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 270	270	< 14	14	< 2.5	2.5
1,1-Dichloroethene	330	100,000	< 8.1	8.1	< 330	330	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 330	330	< 14	14	< 2.5	2.5
1,1-Dichloropropene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
1,2,3-Trichlorobenzene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,2,3-Trichloropropane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,2,4-Trichlorobenzene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,2,4-Trimethylbenzene	3,600	52,000	< 8.1	8.1	< 2400	2,400	**0.81**	6.5	< 4.0	4.0	< 3600	3,600	< 250	250	**0.48**	3.2	**6,500**	5,900	**46**	290	**64**	280	**510**	330	< 220	220	< 320	320	**410**	420	< 1000	1,000	< 2.5	2.5
1,2-Dibromo-3-chloropropane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,2-Dibromomethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
1,2-Dichlorobenzene	1,100	100,000	< 8.1	8.1	< 1100	1,100	< 6.5	6.5	< 4.0	4.0	< 1100	1,100	< 250	250	< 3.2	3.2	< 1100	1,100	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,2-Dichloroethane	20	3,100	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
1,2-Dichloropropane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
1,3,5-Trimethylbenzene	8,400	52,000	< 8.1	8.1	< 2400	2,400	**0.99**	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	**0.76**	5.9	< 280	280	**200**	330	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,3-Dichlorobenzene	2,400	4,900	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 2400	2,400	< 250	250	< 3.2	3.2	< 2400	2,400	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,3-Dichloropropane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
1,4-Dichlorobenzene	1,800	13,000	< 8.1	8.1	< 1800	1,800	< 6.5	6.5	< 4.0	4.0	< 1800	1,800	< 250	250	< 3.2	3.2	< 1800	1,800	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
1,4-dioxane	100	13,000	< 100	100	< 48000	48,000	< 100	100	< 80	80	< 160000	160,000	< 5000	5,000	< 63	63	< 97000	97,000	< 100	100	< 5600	5,600	< 51	51	< 100	100	< 67	67	< 8300	8,300	< 100	100	< 49	49
2,2-Dichloropropane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
2-Chlorotoluene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
2-Hexanone (Methyl Butyl Ketone)			< 40	40	< 12000	12,000	< 32	32	< 20	20	< 40000	40,000	< 1200	1,200	< 16	16	< 24000	24,000	< 30	30	< 1400	1,400	< 13	13	< 38	38	< 17	17	< 2100	2,100	< 69	69	< 12	12
2-Isopropyltoluene			< 8.1	8.1	**1,800**	2,400	**17**	6.5	**2.7**	4.0	**10,000**	5,900	< 250	250	**6.7**	3.2	**11,000**	9,700	**39**	290	**50**	280	**51**	330	**24**	220	< 320	320	**1,600**	420	< 1000	1,000	< 2.5	2.5
4-Chlorotoluene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
4-Methyl-2-Pentanone			< 40	40	< 12000	12,000	< 32	32	< 20	20	< 40000	40,000	< 1200	1,200	< 16	16	< 24000	24,000	< 30	30	< 1400	1,400	< 13	13	< 38	38	< 17	17	< 2100	2,100	< 69	69	< 12	12
Acetone	50	100,000	< 50	50	< 24000	24,000	**70**	50	< 40	40	< 79000	79,000	< 2500	2,500	**8.2**	32	< 49000	49,000	< 50	50	< 2800	2,800	**3.1**	26	**16**	50	< 33	33	< 4200	4,200	**230**	50	< 25	25
Acrolein			< 32	32	< 9700	9,700	< 26	26	< 16	16	< 32000	32,000	< 1000	1,000	< 13	13	< 19000	19,000	< 24	24	< 1100	1,100	< 10	10	< 31	31	< 13	13	< 1700	1,700	< 55	55	< 9.9	9.9
Acrylonitrile			< 32	32	< 9700	9,700	< 26	26	< 16	16	< 16000	16,000	< 1000	1,000	< 13	13	< 19000	19,000	< 24	24	< 1100	1,100	< 10	10	< 15	15	< 13	13	< 1700	1,700	< 55	55	< 9.9	9.9
Benzene	60	4,800	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 60	60	**0.63**	3.2	< 4900	4,900	< 5.9	5.9	< 60	60	< 2.6	2.6	**34**	60	< 3.3	3.3	< 60	60	< 14	14	**0.34**	2.5
Bromobenzene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
Bromochloromethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Bromodichloromethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Bromoform			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Bromomethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Carbon Disulfide			< 8.1	8.1	< 2400	2,400	**1.8**	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	**3.6**	14	< 2.5	2.5
Carbon tetrachloride	760	2,400	< 8.1	8.1	< 760	760	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Chlorobenzene	1,100	100,000	< 8.1	8.1	< 1100	1,100	< 6.5	6.5	< 4.0	4.0	< 1100	1,100	< 250	250	< 3.2	3.2	< 1100	1,100	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Chloroethane			< 8.1	8.1	< 2400	2,400	**17**	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	**2.3**	14	< 2.5	2.5
Chloroform	370	49,000	< 8.1	8.1	< 370	370	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 370	370	< 14	14	< 2.5	2.5
Chloromethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
cis-1,2-Dichloroethene	250	100,000	< 8.1	8.1	< 250	250	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 250	250	< 2.6	2.6	< 7.6	7.6	**33**	250	**170**	250	< 14	14	< 2.5	2.5
cis-1,3-Dichloropropene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Dibromochloromethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Dibromomethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Dichlorodifluoromethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Ethylbenzene	1,000	41,000	< 8.1	8.1	< 1000	1,000	< 6.5	6.5	< 4.0	4.0	< 1000	1,000	< 250	250	**22**	180	< 1000	1,000	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	**98**	420	< 14	14	**31**	190
Hexachlorobutadiene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
Isopropylbenzene			< 8.1	8.1	**590**	2,400	**3.1**	6.5	**1.2**	4.0	**4,600**	2,000	< 250	250	**2**	3.2	**17,000**	9,700	**76**	290	**60**	280	**55**	330	< 220	220	< 320	320	**120**	420	< 1000	1,000	< 2.5	2.5
m&p-Xylenes	260	100,000	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	**120**	180	< 4900	4,900	< 5.9	5.9	**78**	280	**230**	330	< 7.6	7.6	< 3.3	3.3	**270**	420	< 14	14	**190**	190
Methyl Ethyl Ketone (2-Butanone)	120	100,000	< 48	48	< 15000	15,000	**22**	39	< 24	24	< 48000	48,000	< 1500	1,500	< 19	19	< 29000	29,000	< 36	36	< 1700	1,700	< 15	15	< 46	46	< 20	20	< 2500	2,500	**63**	83	< 15	15
Methyl t-butyl ether (MTBE)	930	100,000	< 16	16	< 930	930	**1.4**	13	< 8.0	8.0	< 16000	16,000	< 500	500	< 6.3	6.3	< 9700	9,700	< 12	12	< 560	560	< 5.1	5.1	< 15	15	< 6.7	6.7	< 830	830	< 28	28	< 4.9	4.9
Methylene chloride	50	100,000	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Naphthalene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	**110**	280	< 7900	7,900	**410**	250	**93**	180	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 220	220	< 320	320	**610**	420	< 1000	1,000	< 2.5	2.5
n-Butylbenzene	12,000	100,000	< 8.1	8.1	**710**	2,400	< 6.5	6.5	< 4.0	4.0	**7,700**	5,900	< 250	250	**19**	180	**16,000**	9,700	**31**	290	**86**	280	**71**	330	< 220	220	< 320	320	**1,100**	420	< 1000	1,000	< 2.5	2.5
n-Propylbenzene	3,900	100,000	< 8.1	8.1	**1,200**	2,400	< 6.5	6.5	**0.94**	4.0	**4,700**	3,900	< 250	250	**1.3**	3.2	**31,000**	9,700	**73**	290	**140**	280	**130**	330	< 220	220	< 320	320	**540**	420	< 1000	1,000	< 2.5	2.5
o-Xylene	260	100,000	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	**91**	180	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	**71**	190
p-Isopropyltoluene			< 8.1	8.1	< 2400	2,400	**2.4**	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	**0.3**	2.6	**130**	220	< 320	320	< 420	420	< 1000	1,000	< 2.5	2.5
sec-Butylbenzene	11,000	100,000	< 8.1	8.1	**3,400**	2,400	**13**	6.5	**5.8**	4.0	**27,000**	16,000	< 250	250	**40**	180	**31,000**	9,700	**80**	290	**140**	280	**130**	330	**49**	220	< 320	320	**2,700**	420	< 1000	1,000	< 2.5	2.5
Styrene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
tert-butyl alcohol			< 160	160	< 48000	48,000	< 130	130	< 80	80	< 160000	160,000	< 5000	5,000	< 63	63	< 97000	97,000	< 120	120	< 5600	5,600	< 51	51	< 150	150	< 67	67	< 8300	8,300	< 280	280	< 49	49
tert-Butylbenzene	5,900	100,000	< 8.1	8.1	**650**	2,400	**39**	6.5	**1.7**	4.0	**5,100**	5,900	< 250	250	**4**	3.2	**4,700**	2,900	**68**	290	< 280	280	**0.51**	2.6	< 220	220	< 320	320	**630**	420	< 1000	1,000	< 2.5	2.5
Tetrachloroethene	1,300	19,000	**76**	250	< 1300	1,300	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 1300	1,300	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	**1.5**	3.3	< 420	420	< 14	14	**180**	190
Tetrahydrofuran (THF)			< 16	16	< 4800	4,800	< 13	13	< 8.0	8.0	< 16000	16,000	< 500	500	< 6.3	6.3	< 9700	9,700	< 12	12	< 560	560	< 5.1	5.1	< 15	15	< 6.7	6.7	< 830	830	< 28	28	< 4.9	4.9
Toluene	700	100,000	< 8.1	8.1	< 700	700	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	**35**	250	**220**	180	< 700	700	**32**	290	< 280	280	< 2.6	2.6	**79**	220	< 3.3	3.3	< 420	420	< 14	14	**29**	190
trans-1,2-Dichloroethene	190	100,000	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 190	190	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 190	190	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 190	190	< 14	14	< 2.5	2.5
trans-1,3-Dichloropropene			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
trabs-1,4-dichloro-2-butene			< 16	16	< 4800	4,800	< 13	13	< 8.0	8.0	< 16000	16,000	< 500	500	< 6.3	6.3	< 9700	9,700	< 12	12	< 560	560	< 5.1	5.1	< 430	430	< 630	630	< 830	830	< 2000	2,000	< 4.9	4.9
Trichloroethene	470	21,000	**630**	250	< 470	470	< 6.5	6.5	**510**	280	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	**2,100**	320	< 420	420	< 14	14	**94**	190
Trichlorofluoromethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Trichlorotrifluoroethane			< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	< 420	420	< 14	14	< 2.5	2.5
Vinyl Chloride	20	900	< 8.1	8.1	< 2400	2,400	< 6.5	6.5	< 4.0	4.0	< 7900	7,900	< 250	250	< 3.2	3.2	< 4900	4,900	< 5.9	5.9	< 280	280	< 2.6	2.6	< 7.6	7.6	< 3.3	3.3	**350**	420	< 14	14	< 2.5	2.5
Total BTEX Concentration			**0**		**0**		**0**		**0**		**0**		**35**		**453.63**		**0**		**0**		**78**		**230**		**113**		**0**		**368**		**0**		**321.34**	
Total VOCs Concentration			**706**		**8350**		**188.5**		**632.34**		**59100**		**445**		**662.31**		**117200**		**445.76**		**674**		**1380.91**		**332**		**2134.5**		**8598**		**298.9**		**595.34**	

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

TABLE 4
Soil Analytical Results
Volatile Organic TICs

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB5	
			(22-24') 12/17/2015 µg/Kg	
			Result	RL
Cyclohexane, 1-ethyl-4-methyl-, trans- (RT 4.930)			**4.1**	5
Cyclohexane, butyl- (RT 6.049)			**10**	5
unknown (RT 5.071)			**5**	5
unknown (RT 5.123)			**7.8**	5

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

TABLE 5A
Soil Analytical Results
Semi-Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYSDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB1						15SB2						15SB3						15SB4						15SB5					
			(2-4')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')		(2-4')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')		(2-4')		(11-13')		(22-24')	
			12/16/2015		12/16/2015		12/16/2015		12/17/2015		12/17/2015		12/17/2015		12/16/2015		12/16/2015		12/16/2015		12/17/2015		12/17/2015		12/17/2015		12/16/2015		12/16/2015		12/16/2015	
			µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,2,4,5-Tetrachlorobenzene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
1,2,4-Trichlorobenzene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
1,2-Dichlorobenzene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
1,2-Diphenylhydrazine			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
1,3-Dichlorobenzene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
1,4-Dichlorobenzene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2,4,5-Trichlorophenol			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2,4,6-Trichlorophenol			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2,4-Dichlorophenol			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2,4-Dimethylphenol			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2,4-Dinitrophenol			< 660	660	< 820	820	< 980	980	< 780	780	< 930	930	< 2400	2,400	< 660	660	< 860	860	< 990	990	< 740	740	< 850	850	< 920	920	< 650	650	< 860	860	< 650	650
2,4-Dinitrotoluene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2,6-Dinitrotoluene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2-Chloronaphthalene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2-Chlorophenol			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2-Methylnaphthalene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	**300**	230	< 300	300	< 230	230
2-Methylphenol (o-cresol)	330	100,000	< 230	230	< 290	290	< 330	330	< 270	270	< 320	320	< 330	330	< 230	230	< 300	300	< 330	330	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
2-Nitroaniline			< 660	660	< 820	820	< 980	980	< 780	780	< 930	930	< 2400	2,400	< 660	660	< 860	860	< 990	990	< 740	740	< 850	850	< 920	920	< 650	650	< 860	860	< 650	650
2-Nitrophenol			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
3&4-Methylphenol (m&p-cresol)	330	100,000	< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
3,3'-Dichlorobenzidine			< 660	660	< 820	820	< 980	980	< 780	780	< 930	930	< 2400	2,400	< 660	660	< 860	860	< 990	990	< 740	740	< 850	850	< 920	920	< 650	650	< 860	860	< 650	650
3-Nitroaniline			< 660	660	< 820	820	< 980	980	< 780	780	< 930	930	< 2400	2,400	< 660	660	< 860	860	< 990	990	< 740	740	< 850	850	< 920	920	< 650	650	< 860	860	< 650	650
4,6-Dinitro-2-methylphenol			< 1600	1,600	< 2100	2,100	< 2500	2,500	< 2000	2,000	< 2300	2,300	< 6000	6,000	< 1600	1,600	< 2200	2,200	< 2500	2,500	< 1800	1,800	< 2100	2,100	< 2300	2,300	< 1600	1,600	< 2200	2,200	< 1600	1,600
4-Bromophenyl phenyl ether			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
4-Chloro-3-methylphenol			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
4-Chloroaniline			< 260	260	< 330	330	< 390	390	< 310	310	< 370	370	< 960	960	< 260	260	< 340	340	< 390	390	< 290	290	< 340	340	< 370	370	< 260	260	< 350	350	< 260	260
4-Chlorophenyl phenyl ether			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
4-Nitroaniline			< 660	660	< 820	820	< 980	980	< 780	780	< 930	930	< 2400	2,400	< 660	660	< 860	860	< 990	990	< 740	740	< 850	850	< 920	920	< 650	650	< 860	860	< 650	650
4-Nitrophenol			< 330	330	< 410	410	< 490	490	< 390	390	< 460	460	< 1200	1,200	< 330	330	< 430	430	< 490	490	< 370	370	< 420	420	< 460	460	< 330	330	< 430	430	< 330	330
Acenaphthene	20,000	100,000	< 230	230	**380**	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	**210**	300	< 320	320	**620**	230	**1,400**	300	< 230	230
Acenaphthylene	100,000	100,000	**96**	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	**230**	230	**180**	300	< 230	230
Acetophenone			< 230	230	< 1200	1,200	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Aniline			< 260	260	< 330	330	< 390	390	< 310	310	< 370	370	< 960	960	< 260	260	< 340	340	< 390	390	< 290	290	< 340	340	< 370	370	< 260	260	< 350	350	< 260	260
Anthracene	100,000	100,000	< 230	230	**180**	290	< 340	340	< 270	270	< 320	320	< 840	840	**170**	230	< 300	300	< 340	340	< 260	260	**150**	300	< 320	320	**1,500**	230	**780**	300	< 230	230
Benz(a)anthracene	1,000	1,000	**170**	230	**410**	290	< 340	340	**140**	270	< 320	320	< 840	840	**490**	230	**220**	300	< 340	340	**400**	260	**580**	300	**300**	320	**4,300**	230	**1,100**	300	< 230	230
Benzidine			< 660	660	< 820	820	< 980	980	< 780	780	< 930	930	< 2400	2,400	< 660	660	< 860	860	< 990	990	< 740	740	< 850	850	< 920	920	< 650	650	< 860	860	< 650	650
Benzo(a)pyrene	1,000	1,000	**230**	230	**610**	290	< 340	340	**160**	270	< 320	320	< 840	840	**540**	230	**230**	300	< 340	340	**380**	260	**780**	300	**300**	320	**4,500**	230	**1,200**	300	< 230	230
Benzo(b)fluoranthene	1,000	1,000	**480**	230	**530**	290	< 340	340	< 270	270	< 320	320	< 840	840	**430**	230	**200**	300	< 340	340	**320**	260	**610**	300	**260**	320	**3,900**	230	**880**	300	< 230	230
Benzo(ghi)perylene	100,000	100,000	**610**	230	**510**	290	< 340	340	< 270	270	< 320	320	< 840	840	**310**	230	< 300	300	< 340	340	**240**	260	**430**	300	< 320	320	**1,800**	230	**670**	300	< 230	230
Benzo(k)fluoranthene	800	3,900	**400**	230	**580**	290	< 340	340	**140**	270	< 320	320	< 800	800	**460**	230	**180**	300	< 340	340	**360**	260	**590**	300	**260**	320	**3,300**	230	**840**	300	< 230	230
Benzoic acid			< 1600	1,600	< 2100	2,100	< 2500	2,500	< 2000	2,000	< 2300	2,300	< 6000	6,000	< 1600	1,600	< 2200	2,200	< 2500	2,500	< 1800	1,800	< 2100	2,100	< 2300	2,300	< 1600	1,600	< 2200	2,200	< 1600	1,600
Benzyl butyl phthalate			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Bis(2-chloroethoxy)methane			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Bis(2-chloroethyl)ether			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Bis(2-chloroisopropyl)ether			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Bis(2-ethylhexyl)phthalate			< 230	230	**510**	290	< 340	340	**150**	270	**570**	320	< 840	840	< 230	230	< 300	300	< 340	340	**1,400**	260	**160**	300	< 320	320	< 230	230	**770**	300	< 230	230
Carbazole			< 1600	1,600	< 2100	2,100	< 2500	2,500	< 2000	2,000	< 2300	2,300	< 6000	6,000	< 1600	1,600	< 2200	2,200	< 2500	2,500	< 1800	1,800	< 2100	2,100	< 2300	2,300	**550**	1,600	< 2200	2,200	< 1600	1,600
Chrysene	1,000	3,900	**310**	230	**510**	290	< 340	340	**160**	270	< 320	320	< 840	840	**520**	230	**260**	300	< 340	340	**460**	260	**680**	300	**320**	320	**4,400**	230	**1,200**	300	< 230	230
Dibenz(a,h)anthracene	330	330	**130**	230	< 290	290	< 330	330	< 270	270	< 320	320	< 330	330	< 230	230	< 300	300	< 330	330	< 260	260	< 300	300	< 320	320	**450**	230	**170**	300	< 230	230
Dibenzofuran	7,000	59,000	< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	**480**	230	< 300	300	< 230	230
Diethyl phthalate			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Dimethylphthalate			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Di-n-butylphthalate			< 230	230	< 290	290	< 340	340	**160**	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	**110**	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Di-n-octylphthalate			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Fluoranthene	100,000	100,000	**250**	230	**760**	290	< 340	340	**210**	270	< 320	320	< 840	840	**910**	230	**460**	300	< 340	340	**740**	260	**770**	300	**630**	320	**6,900**	1,100	**2,200**	300	< 230	230
Fluorene	30,000	100,000	< 230	230	**240**	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	**160**	300	< 320	320	**630**	230	**1,000**	300	< 230	230
Hexachlorobenzene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Hexachlorobutadiene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Hexachlorocyclopentadiene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Hexachloroethane			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Indeno(1,2,3-cd)pyrene	500	500	**630**	230	**510**	290	< 340	340	< 270	270	< 320	320	< 500	500	**350**	230	**150**	300	< 340	340	**230**	260	**480**	300	**180**	320	**2,400**	230	**550**	300	< 230	230
Isophorone			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Naphthalene	12,000	100,000	< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	**7,900**	300	< 230	230
Nitrobenzene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
N-Nitrosodimethylamine			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
N-Nitrosodi-n-propylamine			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
N-Nitrosodiphenylamine			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Pentachloronitrobenzene			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Pentachlorophenol	800	6,700	< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 800	800	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Phenanthrene	100,000	100,000	**120**	230	**190**	290	< 340	340	**120**	270	< 320	320	< 840	840	**770**	230	**420**	300	< 340	340	**600**	260	**750**	300	**570**	320	**6,100**	230	**3,900**	300	< 230	230
Phenol	330	100,000	< 230	230	< 290	290	< 330	330	< 270	270	< 320	320	< 330	330	< 230	230	< 300	300	< 330	330	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230
Pyrene	100,000	100,000	**190**	230	**770**	290	< 340	340	**210**	270	< 320	320	< 840	840	**840**	230	**440**	300	< 340	340	**750**	260	**760**	300	**550**	320	**6,700**	1,100	**3,400**	300	< 230	230
Pyridine			< 230	230	< 290	290	< 340	340	< 270	270	< 320	320	< 840	840	< 230	230	< 300	300	< 340	340	< 260	260	< 300	300	< 320	320	< 230	230	< 300	300	< 230	230

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

TABLE 5B
Soil Analytical Results
Semi-Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB6						15SB7						15SB8						15SB9						15SB10						Duplicate	
			(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		12/17/2015 µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,2,4,5-Tetrachlorobenzene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
1,2,4-Trichlorobenzene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
1,2-Dichlorobenzene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
1,2-Diphenylhydrazine			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
1,3-Dichlorobenzene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
1,4-Dichlorobenzene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2,4,5-Trichlorophenol			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2,4,6-Trichlorophenol			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2,4-Dichlorophenol			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2,4-Dimethylphenol			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2,4-Dinitrophenol			< 760	760	< 990	990	< 1000	1,000	< 750	750	< 820	820	< 880	880	< 750	750	< 860	860	< 940	940	< 770	770	< 810	810	< 750	750	< 720	720	< 960	960	< 1300	1,300	< 810	810
2,4-Dinitrotoluene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2,6-Dinitrotoluene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2-Chloronaphthalene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2-Chlorophenol			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2-Methylnaphthalene			< 270	270	< 350	350	< 360	360	**770**	260	< 290	290	< 310	310	**160**	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
2-Methylphenol (o-cresol)	330	100,000	< 270	270	< 330	330	< 330	330	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 330	330	< 330	330	< 280	280
2-Nitroaniline			< 760	760	< 990	990	< 1000	1,000	< 750	750	< 820	820	< 880	880	< 750	750	< 860	860	< 940	940	< 770	770	< 810	810	< 750	750	< 720	720	< 960	960	< 1300	1,300	< 810	810
2-Nitrophenol			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
3&4-Methylphenol (m&p-cresol)	330	100,000	< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	**260**	310	< 260	260	< 300	300	**330**	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
3,3'-Dichlorobenzidine			< 760	760	< 990	990	< 1000	1,000	< 750	750	< 820	820	< 880	880	< 750	750	< 860	860	< 940	940	< 770	770	< 810	810	< 750	750	< 720	720	< 960	960	< 1300	1,300	< 810	810
3-Nitroaniline			< 760	760	< 990	990	< 1000	1,000	< 750	750	< 820	820	< 880	880	< 750	750	< 860	860	< 940	940	< 770	770	< 810	810	< 750	750	< 720	720	< 960	960	< 1300	1,300	< 810	810
4,6-Dinitro-2-methylphenol			< 1900	1,900	< 2500	2,500	< 2600	2,600	< 1900	1,900	< 2100	2,100	< 2200	2,200	< 1900	1,900	< 2200	2,200	< 2300	2,300	< 1900	1,900	< 2000	2,000	< 1900	1,900	< 1800	1,800	< 2400	2,400	< 3200	3,200	< 2000	2,000
4-Bromophenyl phenyl ether			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
4-Chloro-3-methylphenol			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
4-Chloroaniline			< 300	300	< 400	400	< 410	410	< 300	300	< 330	330	< 350	350	< 300	300	< 350	350	< 380	380	< 310	310	< 320	320	< 300	300	< 290	290	< 380	380	< 510	510	< 320	320
4-Chlorophenyl phenyl ether			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
4-Nitroaniline			< 760	760	< 990	990	< 1000	1,000	< 750	750	< 820	820	< 880	880	< 750	750	< 860	860	< 940	940	< 770	770	< 810	810	< 750	750	< 720	720	< 960	960	< 1300	1,300	< 810	810
4-Nitrophenol			< 380	380	< 490	490	< 520	520	< 370	370	< 410	410	< 440	440	< 370	370	< 430	430	< 470	470	< 380	380	< 400	400	< 380	380	< 360	360	< 480	480	< 630	630	< 410	410
Acenaphthene	20,000	100,000	< 270	270	< 350	350	< 360	360	**2,300**	260	< 290	290	< 310	310	**420**	260	< 300	300	**190**	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Acenaphthylene	100,000	100,000	< 270	270	< 350	350	< 360	360	**210**	260	< 290	290	< 310	310	**120**	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Acetophenone			< 270	270	< 350	350	< 360	360	< 260	260	< 4500	4,500	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Aniline			< 300	300	< 400	400	< 410	410	< 300	300	< 330	330	< 350	350	< 300	300	< 350	350	< 380	380	< 310	310	< 320	320	< 300	300	< 290	290	< 380	380	< 510	510	< 320	320
Anthracene	100,000	100,000	< 270	270	< 350	350	< 360	360	**3,900**	260	< 290	290	**270**	310	**840**	260	< 300	300	**490**	330	**240**	270	**140**	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Benz(a)anthracene	1,000	1,000	< 270	270	< 350	350	< 360	360	**6,400**	260	< 290	290	**560**	310	**2,000**	260	**150**	300	**770**	330	**1,800**	270	**610**	280	< 260	260	< 250	250	**210**	340	**260**	440	**370**	280
Benzidine			< 760	760	< 990	990	< 1000	1,000	< 750	750	< 820	820	< 880	880	< 750	750	< 860	860	< 940	940	< 770	770	< 810	810	< 750	750	< 720	720	< 960	960	< 1300	1,300	< 810	810
Benzo(a)pyrene	1,000	1,000	**130**	270	**190**	350	< 360	360	**5,000**	260	**130**	290	**490**	310	**1,900**	260	**150**	300	**720**	330	**1,800**	270	**660**	280	< 260	260	< 250	250	**210**	340	**250**	440	**380**	280
Benzo(b)fluoranthene	1,000	1,000	< 270	270	**180**	350	< 360	360	**4,100**	260	< 290	290	**420**	310	**1,600**	260	< 300	300	**560**	330	**1,700**	270	**560**	280	< 260	260	< 250	250	**210**	340	**240**	440	**320**	280
Benzo(ghi)perylene	100,000	100,000	< 270	270	**160**	350	< 360	360	**2,500**	260	< 290	290	**250**	310	**920**	260	< 300	300	**390**	330	**1,000**	270	**320**	280	< 260	260	< 250	250	**180**	340	< 440	440	**240**	280
Benzo(k)fluoranthene	800	3,900	< 270	270	< 350	350	< 360	360	**3,800**	260	< 290	290	**410**	310	**1,600**	260	< 300	300	**600**	330	**1,700**	270	**580**	280	< 260	260	< 250	250	**190**	340	**250**	440	**370**	280
Benzoic acid			< 1900	1,900	< 2500	2,500	< 2600	2,600	< 1900	1,900	< 2100	2,100	< 2200	2,200	< 1900	1,900	< 2200	2,200	< 2300	2,300	< 1900	1,900	< 2000	2,000	< 1900	1,900	< 1800	1,800	< 2400	2,400	< 3200	3,200	< 2000	2,000
Benzyl butyl phthalate			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Bis(2-chloroethoxy)methane			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Bis(2-chloroethyl)ether			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Bis(2-chloroisopropyl)ether			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Bis(2-ethylhexyl)phthalate			< 270	270	**310**	350	< 360	360	**470**	260	**360**	290	< 310	310	**200**	260	**840**	300	< 330	330	**1,000**	270	**120**	280	< 260	260	< 250	250	**630**	340	< 440	440	**170**	280
Carbazole			< 1900	1,900	< 2500	2,500	< 2600	2,600	**880**	1,900	< 2100	2,100	< 2200	2,200	**320**	1,900	< 2200	2,200	< 2300	2,300	< 1900	1,900	< 2000	2,000	< 1900	1,900	< 1800	1,800	< 2400	2,400	< 3200	3,200	< 2000	2,000
Chrysene	1,000	3,900	**150**	270	< 350	350	< 360	360	**6,600**	260	< 290	290	**570**	310	**2,300**	260	**150**	300	**790**	330	**2,100**	270	**700**	280	< 260	260	< 250	250	**240**	340	**290**	440	**430**	280
Dibenz(a,h)anthracene	330	330	< 270	270	< 330	330	< 330	330	**660**	260	< 290	290	< 310	310	**250**	260	< 300	300	< 330	330	**270**	270	< 280	280	< 260	260	< 250	250	< 330	330	< 330	330	< 280	280
Dibenzofuran	7,000	59,000	< 270	270	< 350	350	< 360	360	**1,400**	260	< 290	290	< 310	310	**300**	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Diethyl phthalate			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Dimethylphthalate			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Di-n-butylphthalate			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Di-n-octylphthalate			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Fluoranthene	100,000	100,000	**200**	270	**290**	350	< 360	360	**14,000**	2,600	**210**	290	**1,200**	310	**4,800**	260	**260**	300	**1,800**	330	**2,500**	270	**1,200**	280	< 260	260	< 250	250	**500**	340	**460**	440	**750**	280
Fluorene	30,000	100,000	< 270	270	< 350	350	< 360	360	**1,600**	260	< 290	290	< 310	310	**270**	260	< 300	300	**210**	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Hexachlorobenzene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Hexachlorobutadiene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Hexachlorocyclopentadiene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Hexachloroethane			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Indeno(1,2,3-cd)pyrene	500	500	< 270	270	< 350	350	< 360	360	**3,200**	260	< 290	290	**290**	310	**990**	260	< 300	300	**430**	330	**1,100**	270	**400**	280	< 260	260	< 250	250	**180**	340	< 440	440	**270**	280
Isophorone			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Naphthalene	12,000	100,000	< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Nitrobenzene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
N-Nitrosodimethylamine			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
N-Nitrosodi-n-propylamine			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
N-Nitrosodiphenylamine			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Pentachloronitrobenzene			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Pentachlorophenol	800	6,700	< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280
Phenanthrene	100,000	100,000	< 270	270	**160**	350	< 360	360	**18,000**	2,600	**230**	290	**1,100**	310	**5,200**	260	**260**	300	**1,900**	330	**1,100**	270	**720**	280	< 260	260	< 250	250	**400**	340	**480**	440	**600**	280
Phenol	330	100,000	< 270	270	< 330	330	< 330	330	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 330	330	< 330	330	< 280	280
Pyrene	100,000	100,000	**230**	270	**290**	350	< 360	360	**12,000**	2,600	**200**	290	**960**	310	**4,300**	260	**250**	300	**1,600**	330	**2,200**	270	**1,100**	280	< 260	260	< 250	250	**470**	340	**440**	440	**730**	280
Pyridine			< 270	270	< 350	350	< 360	360	< 260	260	< 290	290	< 310	310	< 260	260	< 300	300	< 330	330	< 270	270	< 280	280	< 260	260	< 250	250	< 340	340	< 440	440	< 280	280

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

TABLE 6A
Soil Analytical Results
Semi-Volatile Organic
TICs (15SB1-15SB5)

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB1				15SB2				15SB3				15SB4						15SB5			
			(2-4')		(18-20')		(0-2')		(18-20')		(2-4')		(18-20')		(0-2')		(11-13')		(18-20')		(2-4')		(22-24')	
			12/16/2015		12/16/2015		12/17/2015		12/17/2015		12/16/2015		12/16/2015		12/17/2015		12/17/2015		12/17/2015		12/16/2015		12/16/2015	
			µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
11H-Benzo[b]fluorene (RT 8.281)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	810	4	-	-
11H-Benzo[b]fluorene (RT 8.398)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11H-Benzo[b]fluorene (RT 8.404)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,800	4	-	-
11H-Benzo[b]fluorene Isomer (RT 8.281)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11H-Benzo[b]fluorene Isomer (RT 8.469)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	970	4	-	-
1H-Indene, 1-ethylidene- (RT 4.669)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1H-Indene, 2,3-dihydro-1,1-dimethy (RT 3.546)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,600	4	-	-	-	-	-	-
1H-Indene, 2-phenyl- (RT 7.239)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 1.981)			-	-	4,100	4	-	-	-	-	-	-	3,600	4	-	-	-	-	-	-	-	-	5,300	4
2-Pentanone, 4-hydroxy-4-methyl- (RT 1.981)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 1.987)			-	-	-	-	-	-	-	-	15,000	4	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.010)			120,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.063)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,900	4	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.063)			-	-	-	-	2,600	4	-	-	16,000	4	-	-	1,300	4	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.069)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,700	4	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.075)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.081)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.087)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.704)			-	-	-	-	-	-	19,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentene, 2,3-dimethyl- (RT 1.781)			2,800	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentene, 3-ethyl-4,4-dimethyl- (RT 2.904)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Phenylnaphthalene (RT 7.475)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,4-Dihydrocyclopenta(cd)pyrene (a (RT 9.716)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	840	4	-	-
3-Hexene, 3-ethyl-2,5-dimethyl- (RT 2.834)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene, 1-methyl- (RT 7.239)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene, 2-(1,1-dimethylethyl)- (RT 8.369)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	580	4	-	-	-	-
Anthracene, 2-methyl- (RT 7.216)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene, 2-methyl- (RT 7.240)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	670	4	-	-
Benz[e]acephenanthrylene (RT 11.792)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,200	4	-	-
Benzene, (2-methyl-1-butenyl)- (RT 3.540)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, (2-methyl-1-butenyl)- (RT 3.546)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2,3,4-tetramethyl- (RT 3.793)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2,3,4-tetramethyl- (RT 3.810)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,000	4	-	-	-	-	-	-
Benzene, 1,2,3,5-tetramethyl- (RT 3.581)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2,3-trimethyl- (RT 2.893)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2,4-trimethyl- (RT 2.893)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2-diethyl- (RT 3.193)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2-diethyl- (RT 3.204)			-	-	-	-	-	-	16,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1-methyl-3-(1-methylethyl (RT 3.599)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	21,000	4	-	-	-	-	-	-
Benzene, 1-methyl-4-(1-methylethyl)- (RT 3.057)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1-methyl-4-(1-methylethyl)- (RT 3.698)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1-methyl-4-(1-methylethyl)- (RT 3.810)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 2-ethyl-1,4-dimethyl- (RT 3.575)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, methyl(1-methylethyl)- (RT 3.575)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 11.786)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 11.886)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 11.898)			-	-	-	-	-	-	-	-	300	4	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 12.180)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 12.192)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 12.198)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,700	4	-	-
Benzo[e]pyrene Isomer (RT 11.780)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene Isomer (RT 12.510)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene Isomer (RT 12.522)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,100	4	-	-
Cyclohexane, (bromomethyl)- (RT 3.381)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, 1,1-dimethyl- (RT 2.904)			-	-	-	-	-	-	15,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, 1,3,5-trimethyl- (RT 2.704)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, 1-ethyl-1-methyl- (RT 2.828)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, eicosyl- (RT 3.675)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,900	4	-	-	-	-	-	-
Cyclohexane, octyl- (RT 2.845)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, pentyl- (RT 3.669)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, pentyl- (RT 3.675)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, propyl- (RT 2.540)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eicosane (RT 13.498)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexadecanoic acid (RT 7.228)			-	-	-	-	330	4	-	-	-	-	-	-	340	4	-	-	-	-	-	-	-	-
Hexadecanoic acid (RT 7.257)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene, 1,5-dimethyl- (RT 5.187)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene, decahydro-, trans- (RT 3.281)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene, decahydro-, trans- (RT 3.287)			-	-	-	-	-	-	32,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene, decahydro-, trans- (RT 3.299)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,300	4	-	-	-	-	-	-
Octadecane, 1-(ethenyloxy)- (RT 9.369)			-	-	-	-	-	-	-	-	1,500	4	-	-	-	-	-	-	-	-	-	-	-	-
Pentatriacontane (RT 11.645)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	330	4
Pentatriacontane (RT 11.651)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene, 2,5-dimethyl- (RT 7.710)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene, 2-methyl- (RT 7.216)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene, 3,4,5,6-tetramethyl- (RT 8.239)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfur dioxide (RT 5.575)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetracontane, 3,5,24-trimethyl- (RT 3.069)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tricyclo[4.3.1.13,8]undecane, 1-bromo (RT 3.640)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,500	4	-	-	-	-	-	-
Triphenylene, 2-methyl- (RT 10.210)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	940	4	-	-

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

TABLE 6A
Soil Analytical Results
Semi-Volatile Organic
TICs (15SB1-15SB5)

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB1				15SB2				15SB3				15SB4						15SB5			
			(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(22-24') 12/16/2015 µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Unknown (RT 1.869)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 10.045)			-	-	-	-	-	-	-	-	8,200	4	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 10.351)			-	-	3,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 10.822)			-	-	840	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 11.216)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 11.457)			-	-	-	-	-	-	-	-	4,000	4	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 11.863)			-	-	1,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.128)			-	-	-	-	-	-	-	-	2,800	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.174)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.198)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.615)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.645)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	860	4	-	-	-	-
Unknown (RT 12.980)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 14.804)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 14.992)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 15.768)			-	-	-	-	-	-	-	-	-	-	1,100	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 15.768)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 15.886)			-	-	-	-	-	-	-	-	-	-	840	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 15.886)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 15.892)			-	-	1,500	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 15.980)			-	-	-	-	-	-	-	-	8,000	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.051)			-	-	-	-	-	-	-	-	2,700	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.074)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.098)			-	-	-	-	-	-	-	-	4,600	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.145)			-	-	-	-	-	-	-	-	-	-	640	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.145)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.186)			-	-	-	-	-	-	-	-	10,000	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.286)			-	-	760	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.345)			-	-	-	-	-	-	-	-	4,600	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.480)			-	-	-	-	-	-	-	-	1,700	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 17.033)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	560	4
Unknown (RT 17.033)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.075)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.445)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.546)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.552)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.610)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.699)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.704)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.734)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.751)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.810)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.816)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.828)			-	-	-	-	-	-	7,700	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.840)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.851)			-	-	-	-	-	-	18,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.893)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.904)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.957)			-	-	-	-	-	-	7,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.975)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.010)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.063)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.075)			-	-	-	-	-	-	25,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.081)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.093)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.104)			-	-	-	-	-	-	25,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.110)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.116)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,900	4	-	-	-	-	-	-
Unknown (RT 3.128)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.157)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.169)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.181)			-	-	-	-	-	-	7,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.193)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.198)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.234)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.275)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.287)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.310)			-	-	-	-	-	-	8,700	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.375)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.387)			-	-	-	-	-	-	21,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.410)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.487)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.522)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.540)			-	-	-	-	-	-	6,600	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.569)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,000	4	-	-	-	-	-	-
Unknown (RT 3.581)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.587)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives
RL- Reporting Limit
Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value
Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

TABLE 6A
Soil Analytical Results
Semi-Volatile Organic
TICs (15SB1-15SB5)

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB1				15SB2				15SB3				15SB4						15SB5			
			(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(11-13') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(22-24') 12/16/2015 µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Unknown (RT 3.593)			-	-	-	-	-	-	24,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.599)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.687)			-	-	-	-	-	-	21,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.693)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,000	4	-	-	-	-	-	-
Unknown (RT 3.722)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.728)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,200	4	-	-	-	-	-	-
Unknown (RT 3.792)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.793)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.798)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.834)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,200	4	-	-	-	-	-	-
Unknown (RT 3.869)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,000	4	-	-	-	-	-	-
Unknown (RT 3.893)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.899)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,900	4	-	-	-	-	-	-
Unknown (RT 3.934)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,900	4	-	-	-	-	-	-
Unknown (RT 4.669)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 4.675)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 5.210)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 5.622)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 5.686)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	950	4	-	-	-	-
Unknown (RT 5.687)			-	-	-	-	-	-	-	-	8,100	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 5.834)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 6.498)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.210)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.322)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,700	4	-	-
Unknown (RT 7.322)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.410)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	450	4	-	-	-	-
Unknown (RT 7.475)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.504)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.698)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.786)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.892)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.898)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.945)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.016)			-	-	-	-	-	-	-	-	290	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.022)			800	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.133)			-	-	-	-	1,300	4	-	-	-	-	-	-	-	-	-	-	400	4	-	-	-	-
Unknown (RT 8.134)			-	-	-	-	-	-	-	-	1,300	4	-	-	1,500	4	-	-	-	-	-	-	-	-
Unknown (RT 8.139)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.140)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	660	4	-	-
Unknown (RT 8.151)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.369)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.398)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 8.833)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.981)			-	-	-	-	-	-	-	-	14,000	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.016)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.022)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.028)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.210)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	710	4	-	-
Unknown (RT 9.234)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	710	4	-	-
Unknown (RT 9.298)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.304)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	680	4	-	-
Unknown (RT 9.304)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.398)			-	-	-	-	-	-	-	-	2,000	4	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 9.504)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 9.510)			-	-	1,500	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.516)			-	-	-	-	-	-	-	-	-	-	540	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.551)			-	-	-	-	-	-	-	-	-	-	880	4	-	-	-	-	-	-	-	-	-	-
unknown (RT 9.557)			-	-	2,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 9.851)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 10.351)			-	-	-	-	-	-	-	-	-	-	1,100	4	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 10.822)			-	-	-	-	-	-	-	-	-	-	420	4	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 11.210)			-	-	-	-	-	-	-	-	-	-	430	4	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 11.857)			-	-	-	-	-	-	-	-	-	-	550	4	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 12.251)			-	-	740	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 14.163)			-	-	-	-	-	-	-	-	-	-	2,300	4	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 14.174)			-	-	3,600	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 15.774)			-	-	850	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 8.416)			-	-	940	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 8.833)			-	-	-	-	-	-	-	-	-	-	6,900	4	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 8.845)			-	-	25,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 9.210)			-	-	3,900	4	-	-	-	-	-	-	1,500	4	-	-	-	-	-	-	-	-	-	-
unknown hydrocarbon (RT 9.857)			-	-	4,800	4	-	-	-	-	-	-	2,400	4	-	-	-	-	-	-	-	-	-	-
Vinylcyclooctane (RT 3.622)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,000	4	-	-	-	-	-	-

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

TABLE 6B
Soil Analytical Results
Semi-Volatile Organic
TICS (15SB6-15SB10, Duplicate)

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB6						15SB7						15SB8						15SB9						15SB10						Duplicate	
			(0-2')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')		(0-2')		(11-13')		(18-20')			
			12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015		12/17/2015	
			µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
11H-Benzo[b]fluorene (RT 8.398)			-	-	-	-	-	-	2,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11H-Benzo[b]fluorene Isomer (RT 8.281)			-	-	-	-	-	-	1,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1H-Indene, 1-ethylidene- (RT 4.669)			-	-	-	-	-	-	-	-	-	-	-	-	330	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1H-Indene, 2,3-dihydro-1,1-dimethy (RT 3.546)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1H-Indene, 2-phenyl- (RT 7.239)			-	-	-	-	-	-	2,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 1.981)			-	-	-	-	-	-	-	-	-	-	8,700	4	-	-	-	-	7,700	4	-	-	-	-	-	-	-	-	-	-	3,200	4	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.063)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,300	4
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.069)			-	-	-	-	14,000	4	-	-	-	-	-	-	13,000	4	-	-	-	-	-	-	7,100	4	11,000	4	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.075)			-	-	-	-	-	-	31,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23,000	4	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.081)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49,000	4	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.087)			45,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentanone, 4-hydroxy-4-methyl- (RT 2.704)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Pentene, 3-ethyl-4,4-dimethyl- (RT 2.904)			-	-	9,400	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Phenylnaphthalene (RT 7.475)			-	-	-	-	-	-	1,500	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-Hexene, 3-ethyl-2,5-dimethyl- (RT 2.834)			-	-	-	-	-	-	-	-	3,600	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene, 1-methyl- (RT 7.239)			-	-	-	-	-	-	-	-	-	-	-	-	750	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene, 2-(1,1-dimethylethyl)- (RT 8.369)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene, 2-methyl- (RT 7.216)			-	-	-	-	-	-	2,300	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, (2-methyl-1-butenyl)- (RT 3.540)			-	-	-	-	-	-	-	-	2,600	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, (2-methyl-1-butenyl)- (RT 3.546)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,700	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2,3,4-tetramethyl- (RT 3.793)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	840	4	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2,3,4-tetramethyl- (RT 3.810)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2,3,5-tetramethyl- (RT 3.581)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	850	4	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2,3-trimethyl- (RT 2.893)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	510	4	-	-	470	4	-	-	-	-	-	-	-	-
Benzene, 1,2,4-trimethyl- (RT 2.893)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	950	4	-	-	-	-	-	-	-	-	-	-
Benzene, 1,2-diethyl- (RT 3.193)			-	-	-	-	570	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	350	4	-	-	-	-	-	-	-	-
Benzene, 1,2-diethyl- (RT 3.204)			-	-	-	-	-	-	-	-	2,500	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1-methyl-3-(1-methylethyl (RT 3.599)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1-methyl-4-(1-methylethyl)- (RT 3.057)			-	-	-	-	710	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1-methyl-4-(1-methylethyl)- (RT 3.698)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,700	4	-	-	-	-
Benzene, 1-methyl-4-(1-methylethyl)- (RT 3.810)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 2-ethyl-1,4-dimethyl- (RT 3.575)			-	-	-	-	1,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, methyl(1-methylethyl)- (RT 3.575)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	4	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 11.786)			-	-	-	-	-	-	1,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 11.886)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 12.180)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,200	4	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene (RT 12.192)			-	-	-	-	-	-	3,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene Isomer (RT 11.780)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	460	4	-	-	-	-	-	-	-	-	-	-	-	-
Benzo[e]pyrene Isomer (RT 12.510)			-	-	-	-	-	-	1,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, (bromomethyl)- (RT 3.381)			-	-	16,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, 1,1-dimethyl- (RT 2.904)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, 1,3,5-trimethyl- (RT 2.704)			-	-	12,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, 1-ethyl-1-methyl- (RT 2.828)			-	-	11,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, eicosyl- (RT 3.675)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, octyl- (RT 2.845)			-	-	13,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, pentyl- (RT 3.669)			-	-	-	-	-	-	-	-	6,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, pentyl- (RT 3.675)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane, propyl- (RT 2.540)			-	-	11,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eicosane (RT 13.498)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,400	4	-	-
Hexadecanoic acid (RT 7.228)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexadecanoic acid (RT 7.257)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,000	4	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene, 1,5-dimethyl- (RT 5.187)			-	-	-	-	-	-	-	-	-	-	-	-	380	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene, decahydro-, trans- (RT 3.281)			-	-	18,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene, decahydro-, trans- (RT 3.287)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene, decahydro-, trans- (RT 3.299)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Octadecane, 1-(ethenyloxy)- (RT 9.369)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentatriacontane (RT 11.651)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	4	-	-
Phenanthrene, 2,5-dimethyl- (RT 7.710)			-	-	-	-	-	-	1,300	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene, 2-methyl- (RT 7.216)			-	-	-	-	-	-	-	-	-	-	-	-	400	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene, 3,4,5,6-tetramethyl- (RT 8.239)			-	-	-	-	-	-	-	-	-	-	440	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfur dioxide (RT 5.575)			-	-	-	-	-	-	-	-	-	-	500	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetracontane, 3,5,24-trimethyl- (RT 3.069)			-	-	16,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tricyclo[4.3.1.13,8]undecane, 1-bromo (RT 3.640)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 1.869)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,600	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 10.045)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 11.216)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,600	4	-	-
Unknown (RT 11.457)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.128)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.174)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	460	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.198)			-	-	-	-	-	-	-	-	-	-	-	-	1,500	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.615)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,100	4	-	-
Unknown (RT 12.645)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 12.980)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	650	4	-	-
Unknown (RT 14.804)			-	-	-	-	-	-	-	-	-	-	-	-	710	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 14.992)			-	-	-	-	-	-	1,200	4	-	-	-	-	-	-	-	-	-	-	430	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 15.768)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,500	4	-	-
Unknown (RT 15.886)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,800	4	-	-
Unknown (RT 15.980)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.051)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.074)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	700	4	-	-
Unknown (RT 16.098)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.145)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	550	4	-	-
Unknown (RT 16.186)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.345)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 16.480)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 17.033)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.075)			-	-	12,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.445)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,200	4	-	-	-	-
Unknown (RT 2.546)			-	-	-	-	-	-	-	-	4,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.552)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,200	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.610)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,200	4	-	-	-	-
Unknown (RT 2.699)			-	-	-	-	610	4	-	-	-	-	-	-	-	-	-	-	-	-	510	4	-	-	320	4	-	-	-	-	-	-	-	-
Unknown (RT 2.704)			-	-	-	-	-	-	-	-	3,600	4	-	-	-	-	-	-	-	-	-	-	850	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.734)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,400	4	-	-	-	-
Unknown (RT 2.751)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,300	4	-	-	-	-
Unknown (RT 2.810)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,000	4	-	-	-	-
Unknown (RT 2.816)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	460	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.828)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.840)			-	-	-	-	520	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.851)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.893)			-	-	-	-	560	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.904)			-	-	-	-	-	-	-	-	2,500	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.957)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 2.975)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,100	4	-	-	-	-
Unknown (RT 3.010)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,500	4	-	-	-	-
Unknown (RT 3.063)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	640	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.075)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,300	4	-	-	-	-
Unknown (RT 3.081)			-	-	-	-	-	-	-	-	4,600	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.093)			-	-	-	-	430	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.104)			-	-	19,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,900	4	-	-	-	-
Unknown (RT 3.110)			-	-	-	-	-	-	-	-	7,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.116)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.128)			-	-	6,300	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.157)			-	-	-	-	450	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	450	4	-	-	-	-	-	-	-	-
Unknown (RT 3.169)			-	-	7,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.181)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.193)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	450	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.198)			-	-	9,300	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.234)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.275)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	650	4	370	4	-	-	-	-	-	-	-	-
Unknown (RT 3.287)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,100	4	-	-	-	-
Unknown (RT 3.310)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.375)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	420	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.387)			-	-	-	-	-	-	-	-	4,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.410)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,500	4	-	-	-	-
Unknown (RT 3.487)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,800	4	-	-	-	-
Unknown (RT 3.522)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,700	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.540)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.569)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.581)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,100	4	-	-	-	-
Unknown (RT 3.587)			-	-	14,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.593)			-	-	-	-	-	-	-	-	14,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.599)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	24,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.687)			-	-	-	-	-	-	-	-	6,700	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.693)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.722)			-	-	-	-	-	-	-	-	2,600	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.728)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,900	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.792)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,600	4	-	-	-	-
Unknown (RT 3.793)			-	-	-	-	960	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500	4	-	-	-	-	-	-	-	-
Unknown (RT 3.798)			-	-	7,700	4	-	-	-	-	7,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.834)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.869)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.893)			-	-	-	-	-	-	-	-	2,400	4	-	-	-	-	4,000	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.899)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 3.934)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,300	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 4.669)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	620	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 4.675)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	340	4	-	-	-	-	-	-	-	-
Unknown (RT 5.210)			-	-	-	-	-	-	-	-	-	-	-	-	500	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 5.622)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,300	4	-	-
Unknown (RT 5.686)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,200	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 5.687)			-	-	-	-	1,900	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,600	4	-	-	-	-	-	-	-	-
Unknown (RT 5.834)			-	-	-	-	-	-	-	-	-	-	-	-	300	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 6.498)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	780	4	-	-
Unknown (RT 7.210)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	550	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.322)			-	-	-	-	-	-	3,900	4	-	-	-	-	400	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.410)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.475)			-	-	-	-	-	-	-	-	-	-	-	-	350	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.504)			-	-	-	-	-	-	1,200	4	-	-	-	-	640	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.698)			-	-	-	-	630	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.786)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.892)			-	-	-	-	440	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 7.898)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,700	4	-	-	-	-	390	4	480	4	-	-	-	-	-	-	-	-
Unknown (RT 7.945)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,000	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.133)			470	4	-	-	880	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	730	4	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.134)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,200	4	-	-	-	-	-	-	1,300	4
Unknown (RT 8.139)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,500	4	-	-	-	-	760	4	-	-	-	-	-	-
Unknown (RT 8.151)			-	-	-	-	-	-	-	-	-	-	-	-	800	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 8.369)			-	-	-	-	1,700	4	-	-	-	-	-	-	-	-	2,800	4	-	-	-	-	-	-	400	4	-	-	-	-	-	-	-	-
Unknown (RT 8.398)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	510	4	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 8.833)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	620	4	-	-
Unknown (RT 8.981)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.016)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	440	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.022)			-	-	-	-	-	-	1,300	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.028)			-	-	-	-	-	-	-	-	-	-	-	-	600	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.298)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	430	4	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.304)			-	-	-	-	-	-	1,300	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (RT 9.398)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
unknown (RT 9.504)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,100	4	-	-
unknown (RT 9.851)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	570	4	-	-
Vinylcyclooctane (RT 3.622)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives
RL- Reporting Limit
Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value
Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

TABLE 7A
Soil Analytical Results
Pesticides PCBs

	COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB1				15SB2				15SB3				15SB4				15SB5			
				(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(22-24') 12/16/2015 µg/Kg	
				Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Pesticides	4,4' -DDD	3.3	13,000	< 2.0	2.0	< 2.9	2.9	< 2.3	2.3	< 4.1	4.1	< 1.9	1.9	< 2.9	2.9	< 2.2	2.2	< 2.8	2.8	< 2.0	2.0	< 2.0	2.0
	4,4' -DDE	3.3	8,900	< 2.0	2.0	< 2.9	2.9	< 2.3	2.3	< 4.1	4.1	< 1.9	1.9	< 2.9	2.9	< 2.2	2.2	< 2.8	2.8	< 2.0	2.0	< 2.0	2.0
	4,4' -DDT	3.3	7,900	< 2.0	2.0	< 2.9	2.9	< 2.3	2.3	< 4.1	4.1	< 1.9	1.9	< 2.9	2.9	< 2.2	2.2	< 2.8	2.8	< 2.0	2.0	< 2.0	2.0
	a-BHC	20	480	< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	a-Chlordane	94	4,200	< 3.3	3.3	< 4.9	4.9	< 3.9	3.9	< 8.1	8.1	< 3.2	3.2	< 4.9	4.9	< 3.6	3.6	< 4.7	4.7	< 3.3	3.3	< 3.3	3.3
	Aldrin	5	97	< 3.3	3.3	< 4.9	4.9	< 3.9	3.9	< 4.1	4.1	< 3.2	3.2	< 4.9	4.9	< 3.6	3.6	< 4.7	4.7	< 3.3	3.3	< 3.3	3.3
	b-BHC	36	360	< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Chlordane	94	4,200	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	d-BHC	40	100,000	< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Dieldrin	5	200	< 3.3	3.3	< 4.9	4.9	< 3.9	3.9	< 2.4	2.4	< 3.2	3.2	< 4.9	4.9	< 3.6	3.6	< 4.7	4.7	< 3.3	3.3	< 3.3	3.3
	Endosulfan I	2,400	24,000	< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Endosulfan II	2,400	24,000	< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Endosulfan sulfate	2,400	24,000	< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Endrin	14	11,000	< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 8.1	8.1	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Endrin aldehyde			< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Endrin ketone			< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	g-BHC			< 1.3	1.3	< 2.0	2.0	< 1.6	1.6	< 3.2	3.2	< 1.3	1.3	< 2.0	2.0	< 1.5	1.5	< 1.9	1.9	< 1.3	1.3	< 1.3	1.3
	g-Chlordane			< 3.3	3.3	< 4.9	4.9	< 3.9	3.9	< 8.1	8.1	< 3.2	3.2	< 4.9	4.9	< 3.6	3.6	< 4.7	4.7	< 3.3	3.3	< 3.3	3.3
	Heptachlor	42	2,100	< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Heptachlor epoxide			< 6.6	6.6	< 9.8	9.8	< 7.8	7.8	< 16	16	< 6.5	6.5	< 9.8	9.8	< 7.3	7.3	< 9.3	9.3	< 6.6	6.6	< 6.5	6.5
	Methoxychlor			< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	Toxaphene			< 130	130	< 200	200	< 160	160	< 320	320	< 130	130	< 200	200	< 150	150	< 190	190	< 130	130	< 130	130
Chlorinated Herbicides	2,4,5-T			< 41	41	< 120	120	-	-	-	-	< 41	41	< 120	120	-	-	-	-	< 42	42	< 82	82
	2,4,5-TP (Silvex)			< 41	41	< 120	120	-	-	-	-	< 41	41	< 120	120	-	-	-	-	< 42	42	< 82	82
	2,4-D			< 41	41	< 120	120	-	-	-	-	< 41	41	< 120	120	-	-	-	-	< 42	42	< 82	82
	2,4-DB			< 410	410	< 1200	1,200	-	-	-	-	< 410	410	< 1200	1,200	-	-	-	-	< 420	420	< 820	820
	Dalapon			< 41	41	< 120	120	-	-	-	-	< 41	41	< 120	120	-	-	-	-	< 42	42	< 82	82
	Dicamba			< 82	82	< 230	230	-	-	-	-	< 82	82	< 250	250	-	-	-	-	< 83	83	< 160	160
	Dichloroprop			< 41	41	< 120	120	-	-	-	-	< 41	41	< 120	120	-	-	-	-	< 42	42	< 82	82
	Dinoseb			< 82	82	< 230	230	-	-	-	-	< 82	82	< 250	250	-	-	-	-	< 83	83	< 160	160
Organphosphate Pesticides	Alachlor			< 33	33	< 49	49	-	-	-	-	< 33	33	< 50	50	-	-	-	-		33	< 32	32
	Atrazine			< 33	33	< 49	49	-	-	-	-	< 33	33	< 50	50	-	-	-	-	< 33	33	< 32	32
	Azinphos methyl			< 40	40	< 49	49	-	-	-	-	< 33	33	< 50	50	-	-	-	-	< 33	33	< 32	32
	Diazinon			< 33	33	< 49	49	-	-	-	-	< 33	33	< 50	50	-	-	-	-	< 33	33	< 32	32
	Disulfoton			< 33	33	< 49	49	-	-	-	-	< 33	33	< 50	50	-	-	-	-	< 33	33	< 32	32
	Malathion			< 33	33	< 49	49	-	-	-	-	< 33	33	< 50	50	-	-	-	-	< 33	33	< 32	32
	Simazine			< 33	33	< 49	49	-	-	-	-	< 33	33	< 50	50	-	-	-	-	< 33	33	< 32	32
PCBs	PCB-1016	100	1,000	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	PCB-1221	100	1,000	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	PCB-1232	100	1,000	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	PCB-1242	100	1,000	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	PCB-1248	100	1,000	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	PCB-1254	100	1,000	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	PCB-1260	100	1,000	**58**	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	PCB-1262	100	1,000	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33
	PCB-1268	100	1,000	< 33	33	< 49	49	< 39	39	< 81	81	< 32	32	< 49	49	< 36	36	< 47	47	< 33	33	< 33	33

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

TABLE 7B
Soil Analytical Results
Pesticides PCBs

	COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB6				15SB7				15SB8				15SB9				15SB10				Duplicate	
				(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		12/17/2015 µg/Kg	
				Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Pesticides	4,4' -DDD	3.3	13,000	< 2.3	2.3	< 3.1	3.1	< 2.2	2.2	< 2.7	2.7	< 3.3	3.3	< 2.9	2.9	< 2.3	2.3	< 2.2	2.2	< 2.2	2.2	< 3.2	3.2	< 2.4	2.4
	4,4' -DDE	3.3	8,900	< 2.3	2.3	< 3.1	3.1	< 2.2	2.2	< 2.7	2.7	< 2.2	2.2	< 2.9	2.9	< 2.3	2.3	< 2.2	2.2	< 2.2	2.2	< 3.2	3.2	< 2.4	2.4
	4,4' -DDT	3.3	7,900	< 2.3	2.3	< 3.1	3.1	< 2.2	2.2	< 2.7	2.7	< 2.2	2.2	< 2.9	2.9	< 3.0	3.0	< 2.2	2.2	< 2.2	2.2	< 3.2	3.2	**7.1**	2.4
	a-BHC	20	480	< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	a-Chlordane	94	4,200	< 3.9	3.9	< 5.1	5.1	< 3.7	3.7	< 4.5	4.5	< 3.7	3.7	< 4.8	4.8	< 3.8	3.8	< 3.7	3.7	< 3.7	3.7	< 6.4	6.4	**10**	4.1
	Aldrin	5	97	< 3.9	3.9	< 5.1	5.1	< 3.7	3.7	< 4.5	4.5	< 3.7	3.7	< 4.8	4.8	< 3.8	3.8	< 3.7	3.7	< 3.7	3.7	< 3.2	3.2	< 4.1	4.1
	b-BHC	36	360	< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Chlordane	94	4,200	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	**55**	41
	d-BHC	40	100,000	< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Dieldrin	5	200	< 3.9	3.9	< 5.1	5.1	< 3.7	3.7	< 4.5	4.5	< 3.7	3.7	< 4.8	4.8	< 3.8	3.8	< 3.7	3.7	< 3.7	3.7	< 1.9	1.9	< 4.1	4.1
	Endosulfan I	2,400	24,000	< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Endosulfan II	2,400	24,000	< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Endosulfan sulfate	2,400	24,000	< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Endrin	14	11,000	< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Endrin aldehyde			< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Endrin ketone			< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	g-BHC			< 1.6	1.6	< 2.1	2.1	< 1.5	1.5	< 1.8	1.8	< 1.5	1.5	< 1.9	1.9	< 1.5	1.5	< 1.5	1.5	< 1.5	1.5	< 2.5	2.5	< 1.6	1.6
	g-Chlordane			< 3.9	3.9	< 5.1	5.1	< 3.7	3.7	< 4.5	4.5	< 3.7	3.7	< 4.8	4.8	< 3.8	3.8	< 3.7	3.7	< 3.7	3.7	< 6.4	6.4	**6.8**	4.1
	Heptachlor	42	2,100	< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Heptachlor epoxide			< 7.8	7.8	< 10	10	< 7.4	7.4	< 8.9	8.9	< 7.4	7.4	< 9.5	9.5	< 7.6	7.6	< 7.5	7.5	< 7.4	7.4	< 13	13	< 8.1	8.1
	Methoxychlor			< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	Toxaphene			< 160	160	< 210	210	< 150	150	< 180	180	< 150	150	< 190	190	< 150	150	< 150	150	< 150	150	< 250	250	< 160	160
PCBs	PCB-1016	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	PCB-1221	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	PCB-1232	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	PCB-1242	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	PCB-1248	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	PCB-1254	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	PCB-1260	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	PCB-1262	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41
	PCB-1268	100	1,000	< 39	39	< 51	51	< 37	37	< 45	45	< 37	37	< 48	48	< 38	38	< 37	37	< 37	37	< 64	64	< 41	41

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

TABLE 8A
Soil Analytical Results
Metals

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB1				15SB2				15SB3				15SB4				15SB5			
			(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(18-20') 12/16/2015 µg/Kg		(0-2') 12/17/2015 µg/Kg		(18-20') 12/17/2015 µg/Kg		(2-4') 12/16/2015 µg/Kg		(22-24') 12/16/2015 µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Aluminum			5,830	31	857	3.2	8,420	41	18,300	72	6,170	34	1,650	3.5	7,470	35	7,150	48	7,140	31	6,360	30
Antimony			< 1.5	1.5	< 1.6	1.6	2	2.0	< 3.6	3.6	2.5	1.7	< 1.7	1.7	10.1	1.8	< 2.4	2.4	< 1.5	1.5	< 1.5	1.5
Arsenic	13	16	4.5	0.6	1.4	0.6	8.7	8.2	17.7	1.4	13.4	0.7	1.5	0.7	8.8	0.7	18.1	1.0	6.9	0.6	5.3	0.6
Barium	350	350	93	0.6	12.7	0.6	303	0.8	96.2	1.4	743	0.7	16.1	0.7	111	0.7	183	1.0	136	0.6	50.3	0.6
Beryllium	7.2	14	0.25	0.25	0.24	0.26	0.43	0.33	0.67	0.57	0.53	0.27	0.22	0.28	0.19	0.28	0.44	0.39	0.55	0.25	0.45	0.24
Cadmium	2.5	2.5	0.85	0.31	0.21	0.32	1.56	0.41	< 0.72	0.72	1.28	0.34	0.22	0.35	1.19	0.35	0.63	0.48	0.71	0.31	0.42	0.30
Calcium			11,200	31	3,210	3.2	49,300	41	5,690	7.2	14,100	34	3,730	3.5	8,300	3.5	7,480	4.8	2,270	3.1	1,190	3.0
Chromium	30	180	87.7	0.31	2.76	0.32	23.7	4.1	26.3	0.72	19	0.34	2.83	0.35	20.8	0.35	18.5	0.48	16.9	0.31	16.2	0.30
Cobalt			6.31	0.31	0.94	0.32	7.3	4.1	10.7	0.72	7.15	0.34	1.83	0.35	9.03	0.35	9.21	0.48	7.73	0.31	7.95	0.30
Copper	50	270	52.4	0.31	5.75	0.32	97.9	4.1	28.7	0.72	938	3.4	3.78	0.35	63.9	0.35	89.6	0.48	50.4	0.31	13.5	0.30
Iron			14,200	31	2,380	3.2	16,900	41	28,300	72	26,800	34	3,880	3.5	43,000	35	19,300	48	29,400	31	21,900	30
Lead	63	400	228	6.2	11.8	0.6	776	8.2	103	1.4	2,790	63	16.4	0.7	162	7.0	512	9.7	190	6.2	8.8	0.6
Magnesium			1,650	3.1	1,540	3.2	3,120	41	3,570	7.2	686	3.4	1,300	3.5	1,760	3.5	1,480	4.8	1,730	3.1	2,960	3.0
Manganese	1,600	2,000	285	3.1	30.2	0.32	285	4.1	223	0.72	249	3.4	59.8	0.35	323	3.5	284	4.8	337	3.1	72.7	0.30
Mercury	0.18	0.81	0.72	0.03	0.03	0.03	1	0.03	0.4	0.06	2.75	0.24	0.55	0.03	0.16	0.03	3.35	0.36	0.92	0.02	< 0.02	0.02
Nickel	30	140	138	3.1	1.56	0.32	16.6	4.1	18.8	0.72	15.5	0.34	2.8	0.35	14.3	0.35	17.8	0.48	14.1	0.31	14.1	0.30
Potassium			1,070	6	138	6	1,870	8	1,930	140	903	7	327	7	1,780	70	1,190	10	1,160	6	1,610	6
Selenium	3.9	36	< 1.2	1.2	< 1.3	1.3	< 1.6	1.6	< 2.9	2.9	< 1.4	1.4	< 1.4	1.4	< 1.4	1.4	< 1.9	1.9	< 1.2	1.2	< 1.2	1.2
Silver	2	36	< 0.31	0.31	< 0.32	0.32	< 0.41	0.41	< 0.72	0.72	< 0.34	0.34	< 0.35	0.35	< 0.35	0.35	< 0.48	0.48	< 0.31	0.31	< 0.30	0.30
Sodium			296	6	297	6	931	8	1,180	14	362	68	474	7	788	7	416	10	200	6	142	6
Thallium			< 1.2	1.2	< 1.3	1.3	< 1.6	1.6	< 2.9	2.9	< 1.4	1.4	< 1.4	1.4	< 1.4	1.4	< 1.9	1.9	< 1.2	1.2	< 1.2	1.2
Vanadium			21.3	0.3	2.5	0.3	23.5	4.1	35.9	0.7	27.4	0.3	4.8	0.3	23.9	0.4	30.6	0.5	23.6	0.3	24.6	0.3
Zinc	109	2,200	577	6.2	8	0.6	300	8.2	114	1.4	995	6.8	8.9	0.7	184	7.0	359	9.7	177	6.2	42.5	0.6

Notes:

* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

TABLE 8B
Soil Analytical Results
Metals

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives*	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	15SB6				15SB7				15SB8				15SB9				15SB10				Duplicate	
			(0-2') 12/17/2015 mg/Kg		(18-20') 12/17/2015 mg/Kg		(0-2') 12/17/2015 mg/Kg		(18-20') 12/17/2015 mg/Kg		(0-2') 12/17/2015 mg/Kg		(18-20') 12/17/2015 mg/Kg		(0-2') 12/17/2015 mg/Kg		(18-20') 12/17/2015 mg/Kg		(0-2') 12/17/2015 mg/Kg		(18-20') 12/17/2015 mg/Kg		12/17/2015 mg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Aluminum			**4,460**	40	**3,110**	51	**2,830**	35	**4,440**	40	**3,600**	35	**5,620**	50	**4,170**	36	**2,340**	36	**2,210**	38	**7,730**	63	**4,800**	39
Antimony			**15.6**	2.0	< 2.5	2.5	**8.3**	1.8	**2.8**	2.0	**7.1**	1.8	< 2.5	2.5	**3.4**	1.8	< 1.8	1.8	**6.9**	1.9	< 3.2	3.2	**4.7**	1.9
Arsenic	13	16	**14.1**	0.8	**31.5**	1.0	**10**	0.7	**17.9**	0.8	**11.1**	0.7	**4.1**	1.0	**15.2**	0.7	**27**	0.7	**10**	0.8	**35.8**	1.3	**51.7**	0.8
Barium	350	350	**256**	0.8	**818**	1.0	**134**	0.7	**259**	0.8	**206**	0.7	**88.9**	1.0	**179**	0.7	**62.3**	0.7	**74.1**	0.8	**151**	1.3	**333**	0.8
Beryllium	7.2	14	**0.25**	0.32	**0.42**	0.41	**0.15**	0.28	**0.39**	0.32	**0.16**	0.28	**0.49**	0.40	**0.26**	0.29	**0.25**	0.29	< 0.30	0.30	**0.43**	0.51	**0.38**	0.31
Cadmium	2.5	2.5	**1.55**	0.40	**0.57**	0.51	**1.68**	0.35	**0.57**	0.40	**1.8**	0.35	**0.5**	0.50	**1.46**	0.36	**1.39**	0.36	**2.95**	0.38	**1.22**	0.63	**1.07**	0.39
Calcium			**11,400**	40	**3,660**	5.1	**8,180**	3.5	**8,600**	4.0	**3,100**	3.5	**2,980**	5.0	**11,800**	36	**7,440**	3.6	**3,290**	3.8	**21,800**	63	**12,100**	39
Chromium	30	180	**15.2**	0.40	**27.4**	0.51	**10.7**	0.35	**20.1**	0.40	**19.3**	0.35	**29.1**	0.50	**20.7**	0.36	**12.3**	0.36	**10**	0.38	**24.7**	0.63	**75.4**	0.39
Cobalt			**9.9**	0.40	**11.2**	0.51	**9.64**	0.35	**7.14**	0.40	**12.4**	0.35	**11.5**	0.50	**8.92**	0.36	**6.89**	0.36	**14.9**	0.38	**7.98**	0.63	**8.09**	0.39
Copper	50	270	**95.2**	0.40	**44.7**	0.51	**62.4**	0.35	**119**	0.40	**59.2**	0.35	**31.4**	0.50	**66.8**	0.36	**18.4**	0.36	**60**	0.38	**77**	0.63	**327**	3.9
Iron			**35,100**	40	**6,780**	51	**37,500**	35	**10,700**	40	**42,800**	35	**15,900**	50	**31,700**	36	**31,300**	36	**74,400**	38	**18,400**	63	**14,600**	39
Lead	63	400	**733**	7.9	**122**	10	**172**	7.0	**529**	7.9	**317**	7.0	**134**	1.0	**612**	7.3	**106**	0.7	**213**	7.6	**268**	13	**2,470**	77
Magnesium			**2,240**	4.0	**1,190**	5.1	**1,370**	3.5	**1,310**	4.0	**1,150**	3.5	**3,130**	5.0	**1,550**	3.6	**856**	3.6	**645**	3.8	**2,120**	6.3	**1,070**	3.9
Manganese	1,600	2,000	**364**	4.0	**92.3**	5.1	**193**	3.5	**149**	4.0	**468**	3.5	**261**	5.0	**189**	3.6	**282**	3.6	**290**	3.8	**184**	0.63	**175**	3.9
Mercury	0.18	0.81	**0.45**	0.03	**14**	0.41	**3.04**	0.27	**11.3**	0.35	**0.21**	0.03	**0.92**	0.04	**4.47**	0.30	**0.14**	0.03	**0.12**	0.03	**12.1**	0.48	**5.3**	0.31
Nickel	30	140	**17.6**	0.40	**65**	0.51	**14.8**	0.35	**13.6**	0.40	**20.5**	0.35	**17.5**	0.50	**17.8**	0.36	**9.12**	0.36	**22.1**	0.38	**17.1**	0.63	**18.8**	0.39
Potassium			**1,510**	8	**1,300**	10	**1,550**	7	**1,300**	8	**1,230**	7	**3,050**	10	**1,210**	7	**638**	7	**1,490**	8	**1,310**	13	**1,200**	8
Selenium	3.9	36	< 1.6	1.6	< 2.0	2.0	< 1.4	1.4	< 1.6	1.6	< 1.4	1.4	< 2.0	2.0	< 1.5	1.5	< 1.4	1.4	< 1.5	1.5	< 2.5	2.5	< 1.5	1.5
Silver	2	36	< 0.40	0.40	< 0.51	0.51	< 0.35	0.35	< 0.40	0.40	< 0.35	0.35	< 0.50	0.50	< 0.36	0.36	< 0.36	0.36	< 0.38	0.38	< 0.63	0.63	< 0.39	0.39
Sodium			**826**	8	**474**	10	**833**	7	**406**	8	**500**	7	**192**	10	**907**	7	**242**	7	**759**	8	**809**	13	**643**	8
Thallium			< 1.6	1.6	< 2.0	2.0	< 1.4	1.4	< 1.6	1.6	< 1.4	1.4	< 2.0	2.0	< 1.5	1.5	< 1.4	1.4	< 1.5	1.5	< 2.5	2.5	< 1.5	1.5
Vanadium			**19.4**	0.4	**28.6**	0.5	**17**	0.4	**25.1**	0.4	**24.4**	0.4	**40**	0.5	**15.8**	0.4	**63.9**	0.4	**16.6**	0.4	**30.2**	0.6	**30.3**	0.4
Zinc	109	2,200	**768**	7.9	**197**	1.0	**150**	7.0	**217**	7.9	**222**	7.0	**136**	1.0	**170**	7.3	**21.3**	0.7	**112**	0.8	**277**	13	**424**	7.7

Notes:
* - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives
RL- Reporting Limit
Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value
Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

65 Eckford Street
Brooklyn, New York

Table 9
Ground Water Analytical Results
Volatile Organic Compounds

Compound	NYSDEC Groundwater Quality Standards	15MW1 12/22/2015 µg/L		15MW2 12/22/2015 µg/L		15MW3 12/22/2015 µg/L		15MW4 12/22/2015 µg/L		15MW5 12/22/2015 µg/L		15MW6 12/23/2015 µg/L		15MW7 12/23/2015 µg/L		15MW8 12/23/2015 µg/L		Duplicate 12/22/2015 µg/L	
	µg/L	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
1,1,1,2-Tetrachlorothane	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,1,1-Trichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
1,1,2,2-Tetrachloroethane	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,1,2-Trichloroethane	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
1,1-Dichloroethene	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,1-Dichloropropene		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,2,3-Trichlorobenzene		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 20	20	< 2.0	2.0	< 1.0	1.0
1,2,3-Trichloropropane	0.04	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,2,4-Trichlorobenzene		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 20	20	< 2.0	2.0	< 1.0	1.0
1,2,4-Trimethylbenzene	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	**39**	20	< 2.0	2.0	< 1.0	1.0
1,2-Dibromo-3-chloropropane	0.04	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 2.5	2.5	< 2.0	2.0	< 10	10	< 2.0	2.0	< 1.0	1.0
1,2-Dibromoethane		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,2-Dichlorobenzene	5	**0.99**	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 2.5	2.5	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,2-Dichloroethane	0.6	< 0.60	0.60	< 0.5	0.5	< 0.60	0.60	< 0.5	0.5	< 1.0	1.0	< 0.5	0.5	< 5.0	5.0	< 0.5	0.5	< 0.60	0.60
1,2-Dichloropropane	0.94	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0
1,3,5-Trimethylbenzene	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,3-Dichlorobenzene		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 2.5	2.5	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,3-Dichloropropane	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
1,4-Dichlorobenzene	5	**0.91**	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
2,2-Dichloropropane	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
2-Chlorotoluene	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
2-Hexanone (Methyl Butyl Ketone)		< 2.5	2.5	< 5.0	5.0	< 2.5	2.5	< 5.0	5.0	< 13	13	< 5.0	5.0	< 50	50	< 5.0	5.0	< 2.5	2.5
2-Isopropyltoluene	5	**7**	1.0	**7.3**	2.0	< 1.0	1.0	**28**	2.0	**17**	5.0	**0.6**	2.0	**88**	20	**11**	2.0	< 1.0	1.0
4-Chlorotoluene	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
4-Methyl-2-Pentanone		< 2.5	2.5	< 5.0	5.0	< 2.5	2.5	< 5.0	5.0	< 13	13	< 5.0	5.0	< 50	50	< 5.0	5.0	< 2.5	2.5
Acetone		< 5.0	5.0	**59**	10	**4.5**	5.0	**7.8**	10	< 25	25	< 10	10	< 50	50	**7.3**	10	**3**	5.0
Acrolein		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 13	13	< 5.0	5.0	< 50	50	< 5.0	5.0	< 5.0	5.0
Acrylonitrile	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 50	50	< 5.0	5.0	< 5.0	5.0
Benzene	1	**0.28**	0.70	< 0.5	0.5	< 0.70	0.70	< 0.5	0.5	< 1.0	1.0	< 0.5	0.5	< 5.0	5.0	< 0.5	0.5	< 0.70	0.70
Bromobenzene	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Bromochloromethane	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Bromodichloromethane		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 20	20	< 2.0	2.0	< 1.0	1.0
Bromoform		< 5.0	5.0	< 10	10	< 5.0	5.0	< 10	10	< 25	25	< 10	10	< 5.0	5.0	< 10	10	< 5.0	5.0
Bromomethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Carbon Disulfide	60	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 20	20	< 2.0	2.0	< 1.0	1.0
Carbon tetrachloride	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Chlorobenzene	5	**8.1**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroethane	5	< 5.0	5.0	**56**	10	< 5.0	5.0	**130**	25	**23**	25	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroform	7	< 5.0	5.0	< 7.0	7.0	< 5.0	5.0	< 7.0	7.0	< 5.0	5.0	< 7.0	7.0	< 5.0	5.0	< 7.0	7.0	< 5.0	5.0
Chloromethane	60	< 5.0	5.0	**0.67**	5.0	**0.46**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	**0.31**	5.0
cis-1,2-Dichloroethene	5	**13**	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
cis-1,3-Dichloropropene		< 0.40	0.40	< 0.4	0.4	< 0.40	0.40	< 0.4	0.4	< 1.0	1.0	< 0.4	0.4	< 5.0	5.0	< 0.4	0.4	< 0.40	0.40
Dibromochloromethane		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 20	20	< 2.0	2.0	< 1.0	1.0
Dibromomethane	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Dichlorodifluoromethane	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Ethylbenzene	5	**1.8**	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Hexachlorobutadiene	0.5	< 0.50	0.50	< 0.5	0.5	< 0.50	0.50	< 0.5	0.5	< 1.0	1.0	< 0.5	0.5	< 4.0	4.0	< 0.5	0.5	< 0.50	0.50
Isopropylbenzene	5	**8.5**	1.0	**1.7**	2.0	< 1.0	1.0	**6.8**	2.0	**25**	5.0	< 2.0	2.0	**100**	20	**37**	2.0	< 1.0	1.0
m&p-Xylenes	5	**0.9**	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 20	20	< 2.0	2.0	< 1.0	1.0
Methyl Ethyl Ketone (2-Butanone)		< 2.5	2.5	< 5.0	5.0	**4.5**	2.5	< 5.0	5.0	< 13	13	< 5.0	5.0	< 50	50	**5.8**	5.0	**2.7**	2.5
Methyl t-butyl ether (MTBE)	10	**1.2**	1.0	**1.6**	2.0	**2.2**	1.0	**0.92**	2.0	**3.7**	5.0	< 2.0	2.0	< 20	20	**5.7**	2.0	**2.1**	1.0
Methylene chloride	5	< 3.0	3.0	< 5.0	5.0	< 3.0	3.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 20	20	< 5.0	5.0	< 3.0	3.0
Naphthalene	10	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 20	20	< 2.0	2.0	< 1.0	1.0
n-Butylbenzene	5	**5**	1.0	**1.5**	2.0	< 1.0	1.0	**5.4**	2.0	**3.8**	5.0	< 2.0	2.0	**97**	20	**11**	2.0	< 1.0	1.0
n-Propylbenzene	5	**6.2**	1.0	**0.66**	2.0	< 1.0	1.0	**2.8**	2.0	**23**	5.0	< 2.0	2.0	**170**	20	**59**	2.0	< 1.0	1.0
o-Xylene	5	**0.39**	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
p-Isopropyltoluene		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
sec-Butylbenzene	5	**15**	1.0	**12**	2.0	**0.88**	1.0	**36**	2.0	**35**	5.0	**1**	2.0	**210**	20	**24**	2.0	**0.69**	1.0
Styrene	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
tert-Butylbenzene	5	**6**	1.0	**6.5**	2.0	**1.8**	1.0	**15**	2.0	**12**	5.0	< 2.0	2.0	**39**	20	**5.7**	2.0	**1.6**	1.0
Tetrachloroethene	5	**0.32**	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Tetrahydrofuran (THF)		< 5.0	5.0	< 10	10	< 5.0	5.0	< 10	10	< 25	25	< 10	10	< 50	50	< 10	10	< 5.0	5.0
Toluene	5	**1.9**	1.0	**1.2**	2.0	**1.9**	1.0	**2**	2.0	**1.6**	5.0	**0.99**	2.0	< 5.0	5.0	**1.7**	2.0	**1.4**	1.0
trans-1,2-Dichloroethene	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
trans-1,3-Dichloropropene	0.4	< 0.40	0.40	< 0.4	0.4	< 0.40	0.40	< 0.4	0.4	< 1.0	1.0	< 0.4	0.4	< 5.0	5.0	< 0.4	0.4	< 0.40	0.40
trans-1,4-dichloro-2-butene	5	< 2.5	2.5	< 5.0	5.0	< 2.5	2.5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 50	50	< 5.0	5.0	< 2.5	2.5
Trichloroethene	5	**3.5**	1.0	**0.54**	2.0	< 1.0	1.0	**1.2**	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Trichlorofluoromethane	5	< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Trichlorotrifluoroethane		< 1.0	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0
Vinyl Chloride	2	**13**	1.0	< 2.0	2.0	< 1.0	1.0	< 2.0	2.0	< 2.0	2.0	< 2.0	2.0	< 5.0	5.0	< 2.0	2.0	< 1.0	1.0

Notes:
RL- Reporting Limit
Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

65 Eckford Street
Brooklyn, New York

TABLE 10
Groundwater Analytical Results
Semi-Volatile Organic Compounds

Compound	NYSDEC Groundwater Quality Standards µg/L	15MW1 12/22/2015 µg/L		15MW2 12/22/2015 µg/L		15MW3 12/22/2015 µg/L		15MW4 12/22/2015 µg/L		15MW5 12/22/2015 µg/L		15MW6 12/23/2015 µg/L		15MW7 12/23/2015 µg/L		15MW8 12/23/2015 µg/L		Duplicate 12/22/2015 µg/L	
		Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
1,2,4-Trichlorobenzene		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
1,2-Dichlorobenzene		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.1	1.1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Diphenylhydrazine		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
1,3-Dichlorobenzene	3	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.1	1.1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-Dichlorobenzene		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.1	1.1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2,4,5-Trichlorophenol	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2,4,6-Trichlorophenol	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2,4-Dichlorophenol		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2,4-Dimethylphenol		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2,4-Dinitrophenol	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2,4-Dinitrotoluene	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
2,6-Dinitrotoluene	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
2-Chloronaphthalene	10	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
2-Chlorophenol	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Methylnaphthalene		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
2-Methylphenol (o-cresol)	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Nitroaniline	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
2-Nitrophenol	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
3&4-Methylphenol (m&p-cresol)		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.1	1.1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
3,3'-Dichlorobenzidine	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
3-Nitroaniline	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
4,6-Dinitro-2-methylphenol	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Bromophenyl phenyl ether		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
4-Chloro-3-methylphenol	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Chloroaniline	5	< 3.5	3.5	< 3.5	3.5	< 3.5	3.5	< 3.7	3.7	< 3.5	3.5	< 3.5	3.5	< 3.5	3.5	< 3.5	3.5	< 3.5	3.5
4-Chlorophenyl phenyl ether		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
4-Nitroaniline	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
4-Nitrophenol		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Acetophenone		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Aniline	5	< 3.5	3.5	< 3.5	3.5	< 3.5	3.5	< 3.7	3.7	< 3.5	3.5	< 3.5	3.5	< 3.5	3.5	< 3.5	3.5	< 3.5	3.5
Anthracene	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Benzidine	5	< 4.5	4.5	< 4.5	4.5	< 4.5	4.5	< 4.7	4.7	< 4.5	4.5	< 4.5	4.5	< 4.5	4.5	< 4.5	4.5	< 4.5	4.5
Benzoic acid		< 25	25	< 25	25	< 25	25	< 26	26	< 25	25	< 25	25	< 25	25	< 25	25	< 25	25
Benzyl butyl phthalate	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Bis(2-chloroethoxy)methane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Bis(2-chloroethyl)ether	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bis(2-chloroisopropyl)ether		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Carbazole		< 25	25	< 25	25	< 25	25	< 26	26	< 25	25	< 25	25	< 25	25	< 25	25	< 25	25
Dibenzofuran		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Diethyl phthalate	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Dimethylphthalate	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Di-n-butylphthalate	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Di-n-octylphthalate	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Fluoranthene	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	**1.8**	5.3	< 5.0	5.0	**4.4**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Fluorene	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	**1.7**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Hexachlorobutadiene	0.5	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.42	0.42	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
Hexachlorocyclopentadiene	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Isophorone	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Naphthalene	10	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Nitrobenzene	0.4	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.11	0.11	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10
N-Nitrosodimethylamine		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.1	1.1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
N-Nitrosodi-n-propylamine		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
N-Nitrosodiphenylamine	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.3	5.3	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Phenol	50	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Pyrene	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	**2.1**	5.3	< 5.0	5.0	**3.8**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
1,2,4,5-Tetrachlorobenzene		< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.53	0.53	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
Acenaphthene	20	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	**2.8**	5.3	< 5.0	5.0	**2.3**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Acenaphthylene		< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	**0.25**	0.11	< 0.10	0.10	**0.33**	0.10	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10
Benz(a)anthracene	0.002	**0.11**	0.02	**0.04**	0.02	**0.11**	0.02	**0.58**	0.02	**0.03**	0.02	**1.9**	0.02	**0.24**	0.02	**0.03**	0.02	**0.08**	0.02
Benzo(a)pyrene		**0.07**	0.02	**0.03**	0.02	**0.08**	0.02	**0.57**	0.02	< 0.02	0.02	**1.7**	0.02	**0.27**	0.02	< 0.02	0.02	**0.05**	0.02
Benzo(b)fluoranthene	0.002	**0.06**	0.02	**0.03**	0.02	**0.07**	0.02	**0.44**	0.02	< 0.02	0.02	**1.4**	0.02	**0.25**	0.02	< 0.02	0.02	**0.04**	0.02
Benzo(ghi)perylene		**0.03**	0.02	< 0.02	0.02	**0.04**	0.02	**0.26**	0.02	< 0.02	0.02	**0.7**	0.02	**0.15**	0.02	< 0.02	0.02	**0.03**	0.02
Benzo(k)fluoranthene	0.002	**0.06**	0.02	**0.02**	0.02	**0.06**	0.02	**0.4**	0.02	< 0.02	0.02	**1.4**	0.02	**0.2**	0.02	< 0.02	0.02	**0.04**	0.02
Bis(2-ethylhexyl)phthalate	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.1	1.1	< 1.0	1.0	< 1.0	1.0	**2.5**	1.0	< 1.0	1.0	< 1.0	1.0
Chrysene	0.002	**0.11**	0.02	**0.04**	0.02	**0.1**	0.02	**0.54**	0.02	< 0.02	0.02	**1.7**	0.02	**0.23**	0.02	< 0.02	0.02	**0.06**	0.02
Dibenz(a,h)anthracene		< 0.02	0.02	< 0.02	0.02	< 0.02	0.02	**0.06**	0.02	< 0.02	0.02	**0.2**	0.02	**0.04**	0.02	< 0.02	0.02	< 0.02	0.02
Hexachlorobenzene	0.04	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02	< 0.02	0.02
Hexachloroethane	5	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.53	0.53	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
Indeno(1,2,3-cd)pyrene	0.002	**0.03**	0.02	< 0.02	0.02	**0.04**	0.02	**0.21**	0.02	< 0.02	0.02	**0.73**	0.02	**0.14**	0.02	< 0.02	0.02	**0.02**	0.02
Pentachloronitrobenzene		< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.11	0.11	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10
Pentachlorophenol	1	< 0.80	0.80	< 0.80	0.80	< 0.80	0.80	< 0.84	0.84	< 0.80	0.80	< 0.80	0.80	< 0.80	0.80	< 0.80	0.80	< 0.80	0.80
Phenanthrene	50	**0.8**	0.10	< 0.10	0.10	**0.97**	0.10	**2.1**	0.11	< 0.10	0.10	**6**	0.10	**0.45**	0.10	**0.11**	0.10	**1**	0.10
Pyridine	50	< 10	10	< 10	10	< 10	10	< 11	11	< 10	10	< 10	10	< 10	10	< 10	10	< 10	10

Notes:

RL- Reporting Limit

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

TABLE 11
Groundwater Analytical Results
Pesticides/PCBs

	Compound	NYSDEC Groundwater Quality Standards	15MW1		15MW2		15MW3		15MW4		15MW5		15MW6		15MW7		15MW8		Duplicate	
			12/22/2015		12/22/2015		12/22/2015		12/22/2015		12/22/2015		12/23/2015		12/23/2015		12/23/2015		12/22/2015	
		µg/L	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
			Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
PCBs	**PCB-1016**	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
	PCB-1221	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
	PCB-1232	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
	PCB-1242	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
	PCB-1248	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
	PCB-1254	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
	PCB-1260	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
	PCB-1262	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
	PCB-1268	0.09	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050
Pesticides	**4,4-DDD**	0.3	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	**0.014**	0.010	< 0.010	0.010	< 0.010	0.010	< 0.050	0.050	< 0.010	0.010	< 0.010	0.010
	4,4-DDE	0.2	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.012	0.012	< 0.010	0.010	< 0.010	0.010
	4,4-DDT	0.11	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.012	0.012	< 0.010	0.010	< 0.010	0.010
	a-BHC	0.94	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.012	0.012	< 0.005	0.005	< 0.005	0.005
	a-Chlordane		< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.050	0.050	< 0.010	0.010	< 0.010	0.010
	Alachlor		< 0.075	0.075	< 0.075	0.075	< 0.075	0.075	< 0.075	0.075	< 0.075	0.075	< 0.075	0.075	< 0.38	0.38	< 0.075	0.075	< 0.075	0.075
	Aldrin		< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.003	0.003	< 0.003	0.003	< 0.002	0.002	< 0.008	0.008	< 0.003	0.003	< 0.002	0.002
	b-BHC	0.04	< 0.005	0.005	< 0.005	0.005	< 0.020	0.020	< 0.015	0.015	< 0.010	0.010	< 0.005	0.005	< 0.012	0.012	< 0.005	0.005	< 0.005	0.005
	Chlordane	0.05	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.050	0.050	< 0.25	0.25	< 0.050	0.050	< 0.050	0.050
	d-BHC	0.04	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.025	0.025	< 0.005	0.005	< 0.005	0.005
	Dieldrin	0.004	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.004	0.004	< 0.002	0.002	< 0.003	0.003	< 0.008	0.008	< 0.002	0.002	< 0.002	0.002
	Endosulfan I		< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.050	0.050	< 0.010	0.010	< 0.010	0.010
	Endosulfan II		< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.050	0.050	< 0.010	0.010	< 0.010	0.010
	Endosulfan Sulfate		< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.050	0.050	< 0.010	0.010	< 0.010	0.010
	Endrin		< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.025	0.025	< 0.010	0.010	< 0.010	0.010
	Endrin aldehyde	5	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.050	0.050	< 0.010	0.010	< 0.010	0.010
	Endrin ketone		< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.060	0.060	< 0.010	0.010	< 0.010	0.010
	gamma-BHC	0.05	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.010	0.010	< 0.050	0.050	< 0.005	0.005	< 0.005	0.005
	g-Chlordane		< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.050	0.050	< 0.010	0.010	< 0.010	0.010
	Heptachlor	0.04	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.025	0.025	< 0.010	0.010	< 0.010	0.010
	Heptachlor epoxide	0.03	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.010	0.010	< 0.025	0.025	< 0.010	0.010	< 0.010	0.010
	Methoxychlor	35	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.10	0.10	< 0.50	0.50	< 0.10	0.10	< 0.10	0.10
	Toxaphene		< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.25	0.25	< 0.20	0.20	< 0.25	0.25	< 1.3	1.3	< 0.25	0.25	< 0.20	0.20

Notes:

RL- Reporting limit

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

Table 12A
Groundwater Analytical Results
TAL Filtered Metals

Compound	NYSDEC Groundwater Quality Standards	15MW1		15MW2		15MW3		15MW4		15MW5		15MW6		15MW7		15MW8		Duplicate	
		12/22/2015		12/22/2015		12/22/2015		12/22/2015		12/22/2015		12/23/2015		12/23/2015		12/23/2015		12/22/2015	
	mg/L	mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L	
Total Metals		Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
Aluminum	NS	0.22	0.010	1.02	0.010	0.282	0.010	1.28	0.010	0.131	0.010	8.62	0.010	1.64	0.010	0.093	0.010	0.235	0.010
Antimony	0.003	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002
Arsenic	0.025	0.009	0.004	0.045	0.004	0.004	0.004	0.07	0.004	0.162	0.004	0.03	0.004	0.027	0.004	0.028	0.004	0.005	0.004
Barium	1	0.35	0.010	0.46	0.010	0.395	0.010	0.426	0.010	0.357	0.010	0.772	0.010	0.547	0.010	0.304	0.010	0.398	0.010
Beryllium	0.003	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001
Cadmium	0.005	< 0.004	0.004	0.001	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	0.001	0.004	0.001	0.004	< 0.004	0.004	< 0.004	0.004
Calcium	NS	158	0.10	170	0.10	257	0.10	162	0.10	136	0.010	204	0.10	156	0.10	122	0.010	268	0.10
Chromium	0.05	0.001	0.001	0.003	0.001	< 0.001	0.001	0.005	0.001	< 0.001	0.001	0.021	0.001	0.005	0.001	< 0.001	0.001	< 0.001	0.001
Cobalt	NS	< 0.005	0.005	0.001	0.005	< 0.005	0.005	0.002	0.005	0.003	0.005	0.009	0.005	0.005	0.005	0.001	0.005	< 0.005	0.005
Copper	0.2	0.002	0.005	0.04	0.005	0.003	0.005	0.03	0.005	< 0.005	0.005	0.225	0.005	0.018	0.005	< 0.005	0.005	0.002	0.005
Iron	0.5	21.2	0.01	34.2	0.01	5.87	0.01	28.5	0.01	25.2	0.01	50.6	0.01	35.9	0.01	25.3	0.01	5.98	0.01
Lead	0.025	0.03	0.002	0.031	0.002	0.022	0.002	0.062	0.002	0.008	0.002	0.724	0.002	0.168	0.002	0.01	0.002	0.019	0.002
Magnesium	35	12.7	0.01	24.4	0.01	19.6	0.01	26.8	0.01	23.3	0.01	32.2	0.01	25	0.01	23.4	0.01	19.8	0.01
Manganese	0.3	0.882	0.005	0.852	0.005	1.21	0.005	1.44	0.005	0.57	0.005	0.558	0.005	0.53	0.005	0.278	0.005	1.22	0.005
Mercury	0.0007	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002
Nickel	0.1	0.003	0.004	0.004	0.004	0.003	0.004	0.008	0.004	0.005	0.004	0.016	0.004	0.004	0.004	0.002	0.004	0.002	0.004
Potassium	NS	15.4	0.1	30.7	0.1	28.1	0.1	33.3	0.1	28.9	0.1	41.3	0.1	33.8	0.1	25.2	0.1	28.4	0.1
Selenium	0.01	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002	0.001	0.002
Silver	0.05	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	0.001	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005
Sodium	2	112	1.0	175	1.0	212	1.0	145	1.0	142	1.0	159	1.0	109	1.0	77	1.0	230	1.0
Thallium	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005
Vanadium	NS	< 0.010	0.010	0.003	0.010	0.002	0.010	0.003	0.010	0.001	0.010	0.025	0.010	0.005	0.010	< 0.010	0.010	< 0.010	0.010
Zinc	2	0.023	0.010	0.031	0.010	0.059	0.010	0.073	0.010	0.007	0.010	0.374	0.010	0.14	0.010	0.008	0.010	0.055	0.010

Notes:
RL- Reporting limit
NS - No Standard
Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

Table 12B
Groundwater Analytical Results
Dissolved Metals

Compound **Dissolved Metals**	**NYSDEC Groundwater Quality Standards** mg/L	**15MW1** **12/22/2015** mg/L		**15MW2** **12/22/2015** mg/L		**15MW3** **12/22/2015** mg/L		**15MW4** **12/22/2015** mg/L		**15MW5** **12/22/2015** mg/L		**15MW6** **12/23/2015** mg/L		**15MW7** **12/23/2015** mg/L		**15MW8** **12/23/2015** mg/L		**Duplicate** **12/22/2015** mg/L	
		Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
Aluminum	**NS**	< 0.011	0.011	**0.37**	0.11	**0.73**	0.11	**0.45**	0.11	**0.9**	0.11	**0.32**	0.11	**0.021**	0.011	**0.49**	0.11	< 0.011	0.011
Antimony	**0.003**	< 0.003	0.003	< 0.003	0.003	< 0.003	0.003	**0.003**	0.003	< 0.003	0.003	< 0.003	0.003	< 0.003	0.003	< 0.003	0.003	< 0.003	0.003
Arsenic	**0.025**	**0.003**	0.003	**0.003**	0.003	**0.001**	0.003	**0.005**	0.003	**0.024**	0.003	**0.004**	0.003	**0.005**	0.003	**0.008**	0.003	**0.001**	0.003
Barium	**1**	**0.243**	0.011	**0.263**	0.011	**0.324**	0.011	**0.287**	0.011	**0.197**	0.011	**0.297**	0.011	**0.24**	0.011	**0.187**	0.011	**0.327**	0.011
Beryllium	**0.003**	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001
Cadmium	**0.005**	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004
Calcium	**NS**	**157**	0.01	**155**	0.01	**232**	0.11	**150**	0.01	**128**	0.01	**186**	0.11	**155**	0.01	**114**	0.01	**250**	0.11
Chromium	**0.05**	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001
Cobalt	**NS**	< 0.005	0.005	**0.002**	0.005	< 0.005	0.005	**0.002**	0.005	**0.002**	0.005	**0.002**	0.005	**0.003**	0.005	**0.002**	0.005	< 0.005	0.005
Copper	**0.2**	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005
Iron	**0.5**	**1.63**	0.01	**2.38**	0.01	**0.03**	0.01	**1.26**	0.01	**2.24**	0.01	**8.33**	0.01	**4.81**	0.01	**5.27**	0.01	**0.03**	0.01
Lead	**0.025**	< 0.002	0.002	< 0.002	0.002	**0.001**	0.002	< 0.002	0.002	< 0.002	0.002	**0.001**	0.002	< 0.002	0.002	< 0.002	0.002	< 0.002	0.002
Magnesium	**35**	**12.4**	0.01	**24.6**	0.01	**19.6**	0.01	**25.6**	0.01	**22.6**	0.01	**30.9**	0.01	**24.7**	0.01	**22.6**	0.01	**19.3**	0.01
Manganese	**0.3**	**0.848**	0.005	**0.82**	0.005	**1.21**	0.005	**1.27**	0.005	**0.529**	0.005	**0.39**	0.005	**0.471**	0.005	**0.261**	0.005	**1.18**	0.005
Mercury	**0.0007**	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002	< 0.0002	0.0002
Nickel	**0.1**	**0.001**	0.004	**0.002**	0.004	< 0.004	0.004	**0.003**	0.004	**0.002**	0.004	**0.002**	0.004	**0.002**	0.004	**0.002**	0.004	< 0.004	0.004
Potassium	**NS**	**15.4**	0.1	**31**	0.1	**27.4**	0.1	**32.9**	0.1	**28.6**	0.1	**40.8**	0.1	**34.6**	0.1	**24**	0.1	**28.7**	0.1
Selenium	**0.01**	< 0.004	0.004	< 0.004	0.004	**0.003**	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	< 0.004	0.004	**0.003**	0.004
Silver	**0.05**	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005	< 0.005	0.005
Sodium	**2**	**114**	1.1	**164**	1.1	**203**	1.1	**148**	1.1	**131**	1.1	**144**	1.1	**113**	1.1	**74.7**	1.1	**211**	1.1
Thallium	**0.0005**	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005	< 0.0005	0.0005
Vanadium	**NS**	< 0.011	0.011	< 0.011	0.011	< 0.011	0.011	< 0.011	0.011	< 0.011	0.011	< 0.011	0.011	< 0.011	0.011	< 0.011	0.011	< 0.011	0.011
Zinc	**2**	**0.002**	0.011	**0.003**	0.011	**0.009**	0.011	**0.013**	0.011	**0.002**	0.011	**0.004**	0.011	**0.003**	0.011	**0.002**	0.011	**0.009**	0.011

Notes:
RL- Reporting limit
NS - No Standard
Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

65 Eckford Street
Brooklyn, New York

TABLE 13
Soil Gas - Volatile Organic Compounds

COMPOUNDS	NYSDOH Maximum Sub-Slab Value (µg/m^3) $^{(a)}$	NYSDOH Soil Outdoor Background Levels (µg/m^3) $^{(b)}$	SG1 12/8/2015 (µg/m3)		SG2 12/8/2015 (µg/m3)		SG3 12/9/2015 (µg/m3)		SG4 12/8/2015 (µg/m3)		SG5 12/8/2015 (µg/m3)		SG6 12/8/2015 (µg/m3)		SG7 12/8/2015 (µg/m3)	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachloroethane			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,1,1-Trichloroethane	100	<2.0 - 2.8	**3.38**	1.00	< 1.00	1.00	**47.6**	1.00	**1.37**	1.00	< 3.00	3.00	**1.62**	1.00	< 5.00	5.00
1,1,2,2-Tetrachloroethane		<1.5	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,1,2-Trichloroethane		<1.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,1-Dichloroethane		<1.0	**6.63**	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	**1.72**	1.00	< 5.02	5.02
1,1-Dichloroethene		<1.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 4.99	4.99
1,2,4-Trichlorobenzene		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,2,4-Trimethylbenzene		<1.0	**1.64**	1.00	**1.24**	1.00	**1.26**	1.00	**1.62**	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
1,2-Dibromoethane		<1.5	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,2-Dichlorobenzene		<2.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,2-Dichloroethane		<1.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.02	5.02
1,2-Dichloropropane			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 4.99	4.99
1,2-Dichlorotetrafluoroethane			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,3,5-Trimethylbenzene		<1.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	**1**	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
1,3-Butadiene		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.01	3.01	< 1.00	1.00	< 5.00	5.00
1,3-Dichlorobenzene		<2.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,4-Dichlorobenzene		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
1,4-Dioxane			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
2-Hexanone			**4.3**	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 4.99	4.99
4-Ethyltoluene		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
4-Isopropyltoluene			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
4-Methyl-2-pentanone			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	**3.03**	1.00	**5.77**	4.99
Acetone		NA	**475**	9.99	**451**	9.99	**117**	5.01	**577**	9.99	< 2.99	2.99	**275**	9.99	**203**	5.01
Acrylonitrile			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 2.99	2.99	< 1.00	1.00	< 5.01	5.01
Benzene		<1.6 - 4.7	< 1.00	1.00	**2.29**	1.00	< 1.00	1.00	**49.2**	1.00	**19.8**	3.00	**4.15**	1.00	< 5.01	5.01
Benzyl Chloride		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
Bromodichloromethane		<5.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
Bromoform		<1.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
Bromomethane		<1.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
Carbon Disulfide		NA	< 1.00	1.00	**2.3**	1.00	**1.85**	1.00	**12**	1.00	**79.7**	3.00	**62.5**	1.00	**29.4**	5.01
Carbon Tetrachloride	5	<3.1	< 0.25	0.25	< 0.25	0.25	**0.35**	0.25	< 0.25	0.25	< 0.75	0.75	< 0.25	0.25	< 1.24	1.24
Chlorobenzene		<2.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
Chloroethane		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.01	3.01	**59.1**	1.00	**7.17**	5.01
Chloroform		<2.4	**33**	1.00	< 1.00	1.00	< 1.00	1.00	**1.58**	1.00	< 3.00	3.00	**16.5**	1.00	< 4.98	4.98
Chloromethane		<1.0 - 1.4	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 2.99	2.99	< 1.00	1.00	< 4.99	4.99
cis-1,2-Dichloroethene		<1.0	**85.2**	1.00	< 1.00	1.00	< 1.00	1.00	**1.03**	1.00	< 3.00	3.00	< 1.00	1.00	< 4.99	4.99
cis-1,3-Dichloropropene		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 4.99	4.99
Cyclohexane		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	**464**	30.0	< 1.00	1.00	**10.9**	4.99
Dibromochloromethane		<5.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
Dichlorodifluromethane		NA	**2.14**	1.00	**128**	1.00	**2.06**	1.00	< 1.00	1.00	< 3.00	3.00	**1.68**	1.00	< 4.99	4.99
Ethanol			**8.94**	1.00	**14.8**	1.00	**4.59**	1.00	**10.1**	1.00	**7.49**	2.99	**6.12**	1.00	**6.23**	5.01
Ethyl Acetate		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
Ethylbenzene		<4.3	**1.1**	1.00	**1.3**	1.00	< 1.00	1.00	**13.9**	1.00	< 3.00	3.00	< 1.00	1.00	< 4.99	4.99
Heptane		NA	**1.45**	1.00	**16.2**	1.00	< 1.00	1.00	**64.7**	1.00	**300**	3.00	**7.66**	1.00	**6.47**	5.00
Hexachlorobutadiene		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.01	3.01	< 1.00	1.00	< 5.00	5.00
Hexane		<1.5	< 1.00	1.00	**46.5**	1.00	< 1.00	1.00	**193**	10.0	**842**	30.0	**11.1**	1.00	**18.1**	5.00
Isopropylalcohol		NA	**4.03**	1.00	**7.17**	1.00	**1.94**	1.00	**4.45**	1.00	**3.39**	3.00	**3.05**	1.00	**8.55**	5.01
Isopropylbenzene			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	**4.43**	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
Xylene (m&p)		<4.3	**4.34**	1.00	**4.13**	1.00	**1.86**	1.00	**13.9**	1.00	< 3.00	3.00	**4.05**	1.00	< 4.99	4.99
Methyl Ethyl Ketone			**13.9**	1.00	**14.2**	1.00	**2.88**	1.00	**11.1**	1.00	< 3.01	3.01	**9.4**	1.00	**5.36**	5.01
MTBE		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.01	5.01
Methylene Chloride		<3.4	**2.75**	1.00	**1.07**	1.00	**3.1**	1.00	**2.3**	1.00	< 3.00	3.00	**2.43**	1.00	< 5.00	5.00
n-Butylbenzene			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
Xylene (o)		<4.3	**1.17**	1.00	**1.15**	1.00	< 1.00	1.00	**2.39**	1.00	**10.6**	3.00	**1.5**	1.00	< 4.99	4.99
Propylene		NA	**3.61**	1.00	**160**	9.99	**5.87**	1.00	**473**	9.99	**1,320**	29.9	**66.4**	1.00	**182**	5.01
sec-Butylbenzene			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
Styrene		<1.0	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 4.98	4.98
Tetrachloroethene	100		**69.8**	0.25	**0.72**	0.25	**7.39**	0.25	**7.93**	0.25	**2.77**	0.75	**13.8**	0.25	**14.3**	1.25
Tetrahydrofuran		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.01	3.01	< 1.00	1.00	< 5.01	5.01
Toluene		1.0 - 6.1	**9.91**	1.00	**7.65**	1.00	**2.07**	1.00	**20.4**	1.00	**18.4**	3.00	**15.1**	1.00	**6.21**	5.01
trans-1,2-Dichloroethene		NA	**15.5**	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 4.99	4.99
trans-1,3-Dichloropropene		NA	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 4.99	4.99
Trichloroethene	5	<1.7	**1,650**	2.50	**4.04**	0.25	**14.1**	0.25	**6.18**	0.25	**69.3**	0.75	**245**	2.50	**38**	1.25
Trichlorofluoromethane		NA	< 1.00	1.00	< 1.00	1.00	**1.99**	1.00	< 1.00	1.00	< 3.00	3.00	**1.56**	1.00	**30.9**	5.00
Trichlorotrifluoroethane			< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 3.00	3.00	< 1.00	1.00	< 5.00	5.00
Vinyl Chloride		<1.0	**1.26**	0.25	**7.43**	0.25	< 0.25	0.25	< 0.25	0.25	**107**	0.75	< 0.25	0.25	< 1.25	1.25
BTEX			**16.52**		**16.52**		**3.93**		**99.79**		**48.8**		**24.8**		**6**	
Total VOCs			**601.71**		**861.46**		**153.86**		**1456.99**		**2604.15**		**488.53**		**516.29**	

Notes:
NA No guidance value or standard available
(a) Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York. October 2006. New York State Department of Health.
(b) NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, February 2005, Summary of Background Levels for Selected Compounds (NYSDOH Database, Outdoor

TABLE 14
Parameters Detected Above Track ( ) Soil Cleanup Objectives
Soil Borings 15SB1-15SB10

COMPOUND	Range in Exceedances	Frequency of Detection	15SB1			15SB2			15SB3			15SB4			15SB5		
			(2-4')	(11-13')	(18-20')	(0-2')	(11-13')	(18-20')	(2-4')	(11-13')	(18-20')	(0-2')	(11-13')	(18-20')	(2-4')	(11-13')	(22-24')
			12/16/2015	12/16/2015	12/16/2015	12/17/2015	12/17/2015	12/17/2015	12/16/2015	12/16/2015	12/16/2015	12/17/2015	12/17/2015	12/17/2015	12/16/2015	12/16/2015	12/16/2015
Sample Results in ug/kg																	
Acetone	70-10,000	6	**-**	**10,000**	**210**	**-**	**-**	**630**	**-**	**-**	**170**	**-**	**-**	**-**	**-**	**-**	**-**
Chlorobenzene	8,000	1	**-**	**8,000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
cis-1,2-Dichloroethene	430-1,900	3	**430**	**1,900**	**-**	**450**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Ethylbenzene	2,900	1	**-**	**2,900**	**-**	**-**	-	-	**-**	**-**	**-**	**-**	-	-	**-**	**-**	**-**
Methyl Ethyl Ketone (2-Butanone)	200	1	**-**	**-**	**-**	**-**	**-**	**200**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
n-Propylbenzene	4,700-31,000	4	**-**	**4,800**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**12,000**	**-**	**-**	**-**	**-**
sec-Butylbenzene	15,000-31,000	6	**-**	**18,000**	**-**	**-**	**15,000**	**-**	**-**	**-**	**-**	**-**	**19,000**	**-**	**-**	**26,000**	**-**
tert-Butylbenzene	6,100	1	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6,100**	**-**
Trichloroethene	510-6,600	6	**6,600**	**-**	**-**	**4,000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**780**	**-**	**-**
Sample Results in ug/kg																	
Benzo(a)anthracene	1,100-6,400	5	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4,300**	**1,100**	**-**
Benzo(a)pyrene	1,200-5,000	5	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4,500**	**1,200**	**-**
Benzo(b)fluoranthene	1,600-4,100	4	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3,900**	**-**	**-**
Benzo(k)fluoranthene	840-3,800	5	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3,300**	**840**	**-**
Chrysene	1,200-6,600	5	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4,400**	**1,200**	**-**
Dibenz(a,h)anthracene	450-660	2	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**450**	**-**	**-**
Indeno(1,2,3-cd)pyrene	510-3,200	7	**630**	**510**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2,400**	**550**	**-**
Sample Results in mg/kg																	
Arsenic	13.4-51.7	10	**-**	**-**	**-**	**-**	**-**	**17.70**	**13.4**	**-**	**-**	**-**	**-**	**18**	**-**	**-**	**-**
Barium	734-818	2	**-**	**-**	**-**	**-**	**-**	**-**	**734.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Chromium	75.4-87.7	2	**87.7**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Copper	50.4-938	14	**52.4**	**-**	**-**	**97.9**	**-**	**-**	**938**	**-**	**-**	**63.9**	**-**	**89.6**	**50.4**	**-**	**-**
Lead	103-2,790	18	**228**	**-**	**-**	**776**	**-**	**103**	**2,790**	**-**	**-**	**162**	**-**	**512**	**190**	**-**	**-**
Mercury	0.21-14	16	**0.7**	**-**	**-**	**1**	**-**	**0.4**	**2.75**	**-**	**0.55**	**-**	**-**	**3.35**	**0.92**	**-**	**-**
Nickel	65-138	2	**138**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Zinc	112-995	17	**577**	**-**	**-**	**300**	**-**	**114**	**995**	**-**	**-**	**184**	**-**	**359**	**177**	**-**	**-**

TABLE 14
Parameters Detected Above Track ( ) Soil Cleanup Objectives
Soil Borings 15SB1-15SB10

COMPOUND	Range in Exceedances	Frequency of Detection	15SB6			15SB7			15SB8			15SB9			15SB10			Duplicate
			(0-2') 12/17/2015	(11-13') 12/17/2015	(18-20') 12/17/2015	(0-2') 12/17/2015	(11-13') 12/17/2015	(18-20') 12/17/2015	(0-2') 12/17/2015	(11-13') 12/17/2015	(18-20') 12/17/2015	(0-2') 12/17/2015	(11-13') 12/17/2015	(18-20') 12/17/2015	(0-2') 12/17/2015	(11-13') 12/17/2015	(18-20') 12/17/2015	- 12/17/2015
Sample Results in ug/kg																		
1,2,4-Trimethylbenzene	6,500	1	-	-	-	-	-	-	-	**6,500**	-	-	-	-	-	-	-	-
Acetone	70-10,000	6	-	-	**70**	-	-	-	-	-	-	-	-	-	-	-	**230**	-
n-Butylbenzene	16,000	1	-	-	-	-	-	-	-	**16,000**	-	-	-	-	-	-	-	-
n-Propylbenzene	4,700-31,000	4	-	-	-	-	4,700	-	-	**31,000**	-	-	-	-	-	-	-	-
sec-Butylbenzene	15,000-31,000	6	-	-	-	-	**27,000**	-	-	**31,000**	-	-	-	-	-	-	-	-
Trichloroethene	510-6,600	6	**630**	-	-	**510**	-	-	-	-	-	-	-	-	**2,100**	-	-	-
Vinyl Chloride	350	1	-	-	-	-	-	-	-	-	-	-	-	-	-	**350**	-	-
Sample Results in ug/kg																		
Benzo(a)anthracene	1,100-6,400	5	-	-	-	**6,400**	-	-	**2,000**	-	-	**1,800**	-	-	-	-	-	-
Benzo(a)pyrene	1,200-5,000	5	-	-	-	**5,000**	-	-	**1,900**	-	-	**1,800**	-	-	-	-	-	-
Benzo(b)fluoranthene	1,600-4,100	4	-	-	-	**4,100**	-	-	**1,600**	-	-	**1,700**	-	-	-	-	-	-
Benzo(k)fluoranthene	840-3,800	5	-	-	-	**3,800**	-	-	**1,600**	-	-	**1,700**	-	-	-	-	-	-
Chrysene	1,200-6,600	5	-	-	-	**6,600**	-	-	**2,300**	-	-	**2,100**	-	-	-	-	-	-
Dibenz(a,h)anthracene	450-660	2	-	-	-	**660**	-	-		-	-		-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	510-3,200	7	-	-	-	**3,200**	-	-	**990**	-	-	**1,100**	-	-	-	-	-	-
Sample Results in ug/kg																		
4,4-DDT	7.1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**7.1**
Sample Results in mg/kg																		
Arsenic	13.4-51.7	10	**14**	-	**32**	-	-	**17.90**		-	-	**15.2**	-	**27**	-	-	**35.8**	**51.7**
Barium	734-818	2	-	-	**818**	-	-	-		-	-		-	-	-	-	-	-
Cadmium	2.95	1	-	-	-	-	-	-		-	-		-	-	**2.95**	-	-	-
Chromium	75.4-87.7	2	-	-	-	-	-	-		-	-		-	-	-	-	-	**75.4**
Copper	50.4-938	14	**95.2**	-	-	**62.4**	-	**119**	**59.2**	-	-	**66.8**	-	-	**60**	-	**77**	**327**
Lead	103-2,790	18	**733**	-	**122**	**172**	-	**529**	**317**	-	**134**	**612**	-	**106**	**213**	-	**268**	**2,470**
Mercury	0.21-14	16	**0.45**	-	**14**	**3.04**	-	**11.3**	**0.21**	-	**0.92**	**4.47**	-	-	-	-	**12.1**	**5.3**
Nickel	65-138	2	-	-	**65**	-	-	-		-	-		-	-	-	-	-	-
Zinc	112-995	17	**768**	-	**197**	**150**	-	**217**	**222**	-	**136**	**170**	-	-	**112**	-	**277**	**424**

65 Eckford Street
Brooklyn, New York

TABLE 15
Parameters Detected Above Ambient Water Quality Standards

VOCs

COMPOUND	Range in Detections	Number of Occurrences	15MW1 12/22/2015	15MW2 12/22/2015	15MW4 12/22/2015	15MW5 12/22/2015	15MW7 12/23/2015	15MW8 12/23/2015
Sample Results in (µg/L)								
1,2,4-Trimethylbenzene	**39**	**1**	**-**	**-**	**-**	**-**	**39**	**-**
2-Isopropyltoluene	**7.0-88**	**6**	**7**	**7.3**	**28**	**17**	**88**	**11**
Acetone	**59**	**1**	**-**	**59**	**-**	**-**	**-**	**-**
Chlorobenzene	**81**	**1**	**81**	**-**	**-**	**-**	**-**	**-**
Chloroethane	**23-130**	**3**	**-**	**56**	**130**	**23**	**-**	**-**
cis-1,2-Dichloroethene	**13**	**1**	**13**	**-**	**-**	**-**	**-**	**-**
Isopropylbenzene	**6.8-100**	**5**	**8.5**	**-**	**6.8**	**25**	**100**	**37**
n-Butylbenzene	**5.4-97**	**3**	**-**	**-**	**5.4**	**-**	**97**	**11**
n-Propylbenzene	**6.2-170**		**6.2**	**-**	**-**	**23**	**170**	**59**
sec-Butylbenzene	**12-210**	**6**	**15**	**12**	**36**	**35**	**210**	**24**
tert-Butylbenzene	**5.7-39**	**6**	**6**	**6.5**	**15**	**12**	**39**	**5.7**
Vinyl Chloride	**13**	**1**	**13**	**-**	**-**	**-**	**-**	**-**

SVOCs

COMPOUND	Range in Detections	Number of Occurrences	15MW1 12/22/2015	15MW2 12/22/2015	15MW3 12/22/2015	15MW4 12/22/2015	15MW5 12/22/2015	15MW6 12/23/2015	15MW7 12/23/2015	15MW8 12/23/2015	Duplicate 12/22/2015
Sample Results in (µg/L)											
Benz(a)anthracene	**0.03-1.9**	**9**	**0.11**	**0.04**	**0.11**	**0.58**	**0.03**	**1.9**	**0.24**	**0.03**	**0.08**
Benzo(a)pyrene	**0.03-1.7**	**7**	**0.07**	**0.03**	**0.08**	**0.57**	**-**	**1.7**	**0.27**	**-**	**0.05**
Benzo(b)fluoranthene	**0.03-1.4**	**7**	**0.06**	**0.03**	**0.07**	**0.44**	**-**	**1.4**	**0.25**	**-**	**0.04**
Benzo(k)fluoranthene	**0.02-1.4**	**7**	**0.06**	**0.02**	**0.06**	**0.4**	**-**	**1.4**	**0.2**	**-**	**0.04**
Chrysene	**0.04-1.7**	**7**	**0.11**	**0.04**	**0.1**	**0.54**	**-**	**1.7**	**0.23**	**-**	**0.06**
Indeno(1,2,3-cd)pyrene	**0.02-0.73**	**7**	**0.03**	**-**	**0.04**	**0.21**	**-**	**0.73**	**0.14**	**-**	**0.02**

TABLE 15
Parameters Detected Above Ambient Water Quality Standards

Pesticides

COMPOUND	Range in Detections	Number of Occurrences	15MW4 12/22/2015
Sample Results in (µg/L)			
4,4-DDD	**0.014**	**1**	**0.014**

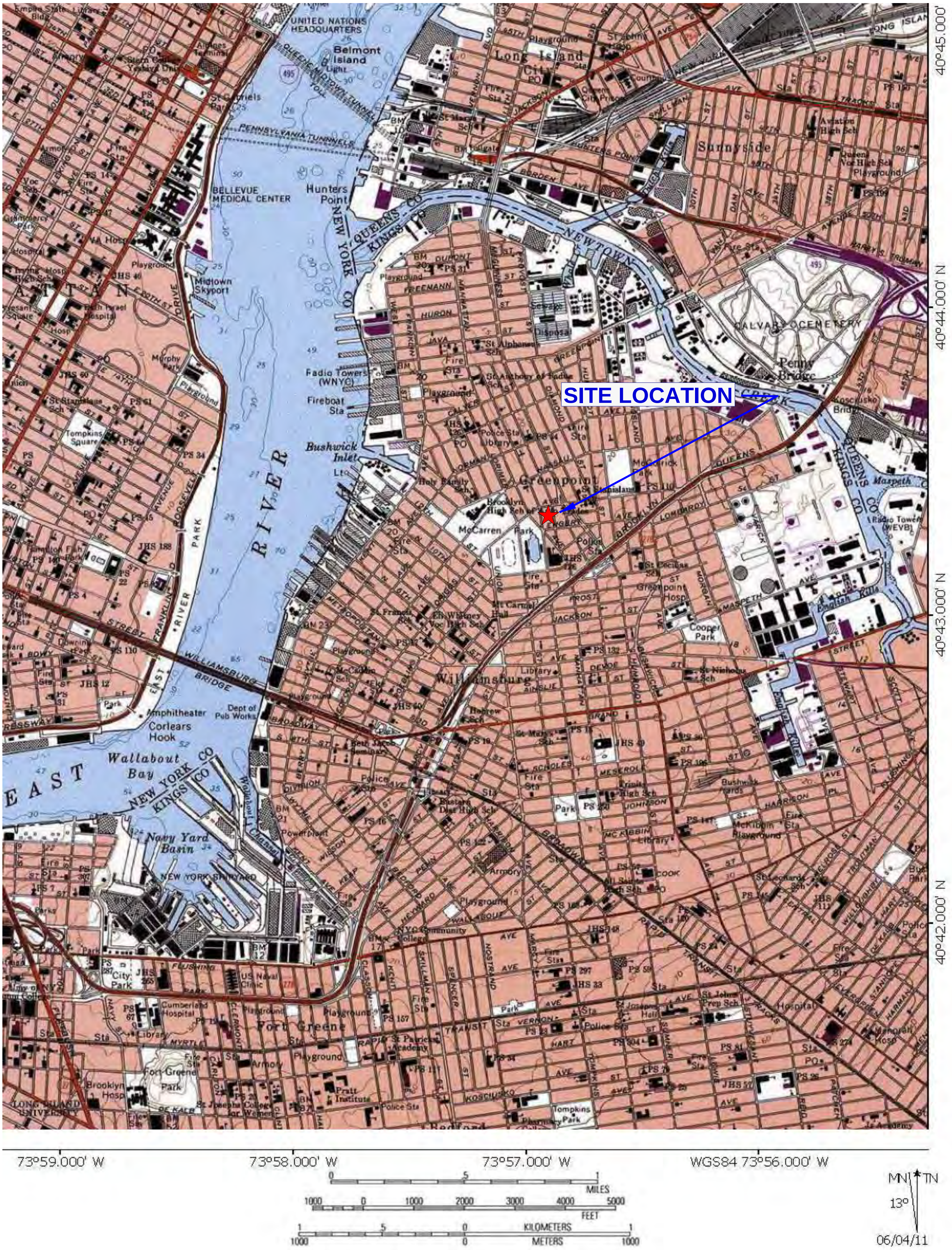
Metals (Total)

COMPOUND	Range in Detections	Number of Occurrences	15MW1 12/22/2015	15MW2 12/22/2015	15MW3 12/22/2015	15MW4 12/22/2015	15MW5 12/22/2015	15MW6 12/23/2015	15MW7 12/23/2015	15MW8 12/23/2015	Duplicate 12/22/2015
Sample Results in (mg/L)											
Arsenic	**0.027-0.162**	**6**	**-**	**0.045**	**-**	**0.07**	**0.162**	**0.03**	**0.027**	**0.028**	**-**
Copper	**0**	**1**	**-**	**-**	**-**	**-**	**-**	**0.225**	**-**	**-**	**-**
Iron	**5.87-50.6**	**9**	**21.2**	**34.2**	**5.87**	**28.5**	**25.2**	**50.6**	**35.9**	**25.3**	**5.98**
Lead	**0.03-0.724**	**5**	**0.03**	**0.031**	**-**	**0.062**	**-**	**0.724**	**0.168**	**-**	**-**
Manganese	**0.53-1.44**	**8**	**0.882**	**0.852**	**1.21**	**1.44**	**0.57**	**0.558**	**0.53**	**-**	**1.22**
Sodium	**77-230**	**9**	**112**	**175**	**212**	**145**	**142**	**159**	**109**	**77**	**230**

Metals (Dissolved)

COMPOUND	Range in Detections	Number of Occurrences	15MW1 12/22/2015	15MW2 12/22/2015	15MW3 12/22/2015	15MW4 12/22/2015	15MW5 12/22/2015	15MW6 12/23/2015	15MW7 12/23/2015	15MW8 12/23/2015	Duplicate 12/22/2015
Sample Results in (mg/L)											
Iron	**1.26-8.33**	**7**	**1.63**	**2.38**	**-**	**1.26**	**2.24**	**8.33**	**4.81**	**5.27**	**-**
Manganese	**0.39-1.27**	**8**	**0.848**	**0.82**	**1.21**	**1.27**	**0.529**	**0.39**	**0.471**	**-**	**1.18**
Sodium	**74.7-211**	**9**	**114**	**164**	**203**	**148**	**131**	**144**	**113**	**74.7**	**211**

FIGURES



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ENVIRONMENTAL BUSINESS CONSULTANTS

Figure No.
1

Site Name: FORMER CARTER SPRAY FINISHING CORP.
Site Address: 65 ECKFORD STREET, BROOKLYN, NY 11222
Drawing Title: SITE LOCATION MAP

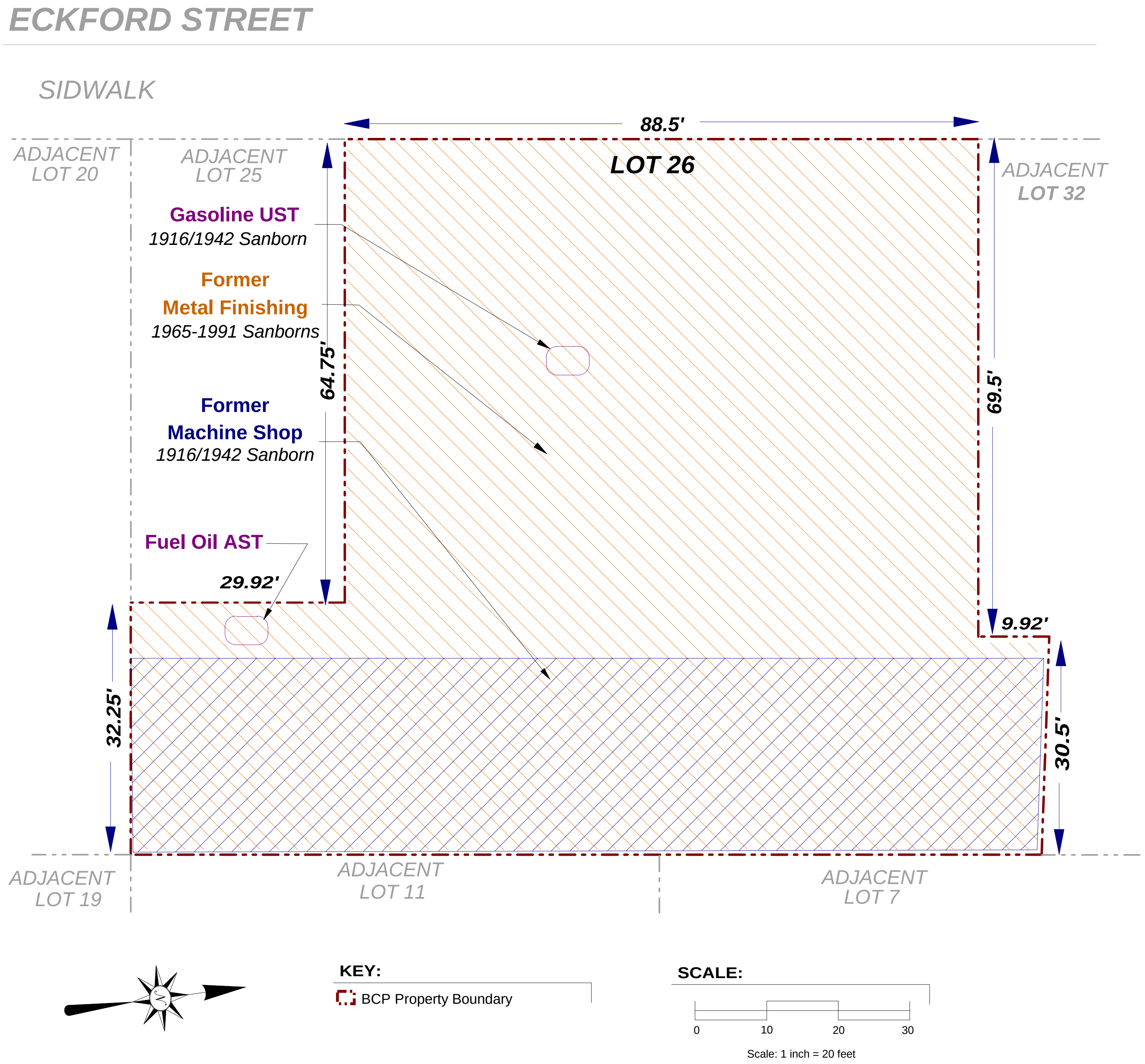

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Figure No.
2

Site Name: FORMER CARTER SPRAY FINISHING CORP.

Site Address: 65 ECKFORD STREET, BROOKLYN, NY 11222

Drawing Title: SITE PLAN

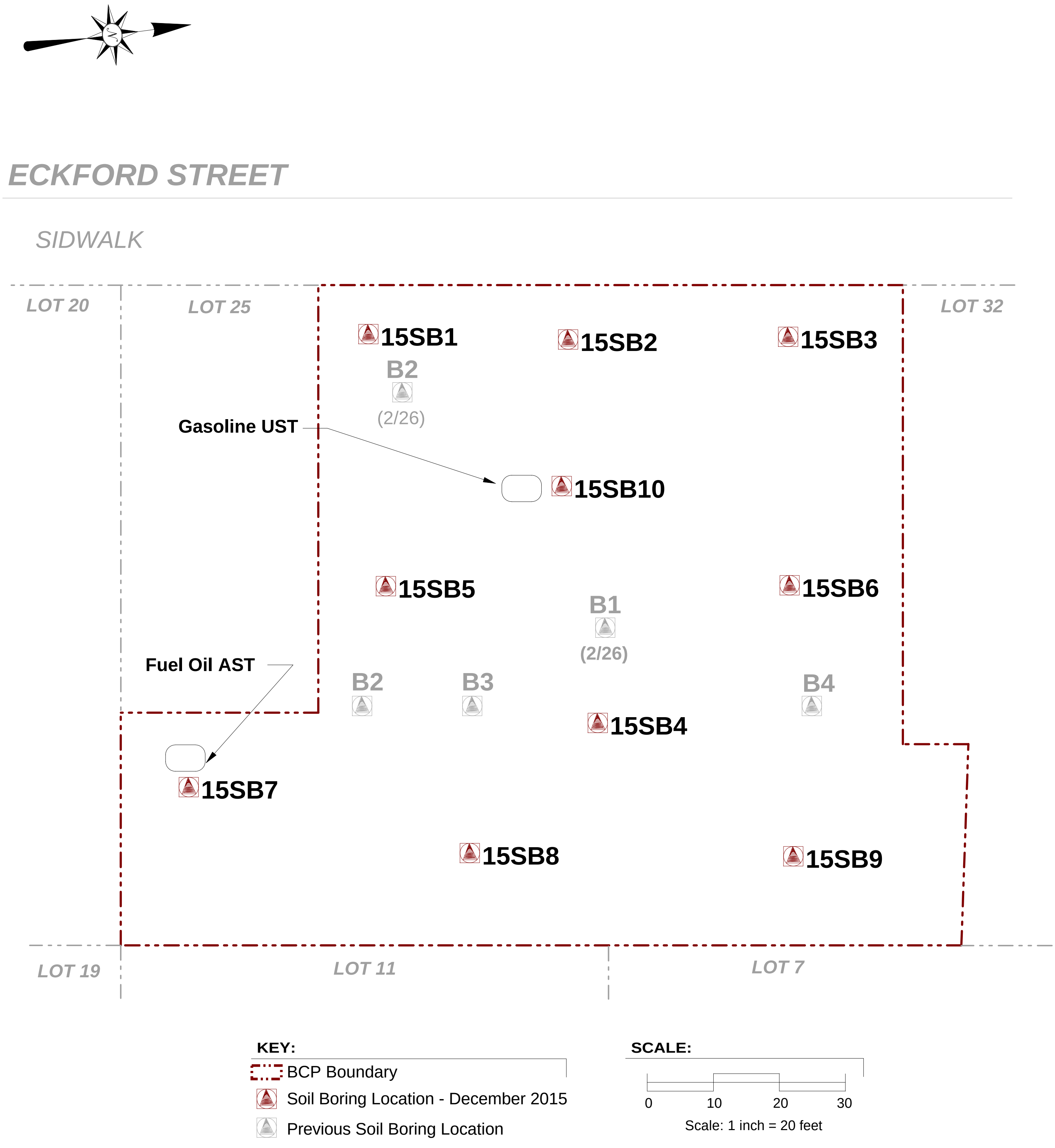

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Figure No.
3

Site Name: FORMER CARTER SPRAY FINISHING CORP.

Site Address: 65 ECKFORD STREET, BROOKLYN, NY 11222

Drawing Title: SOIL BORING LOCATIONS

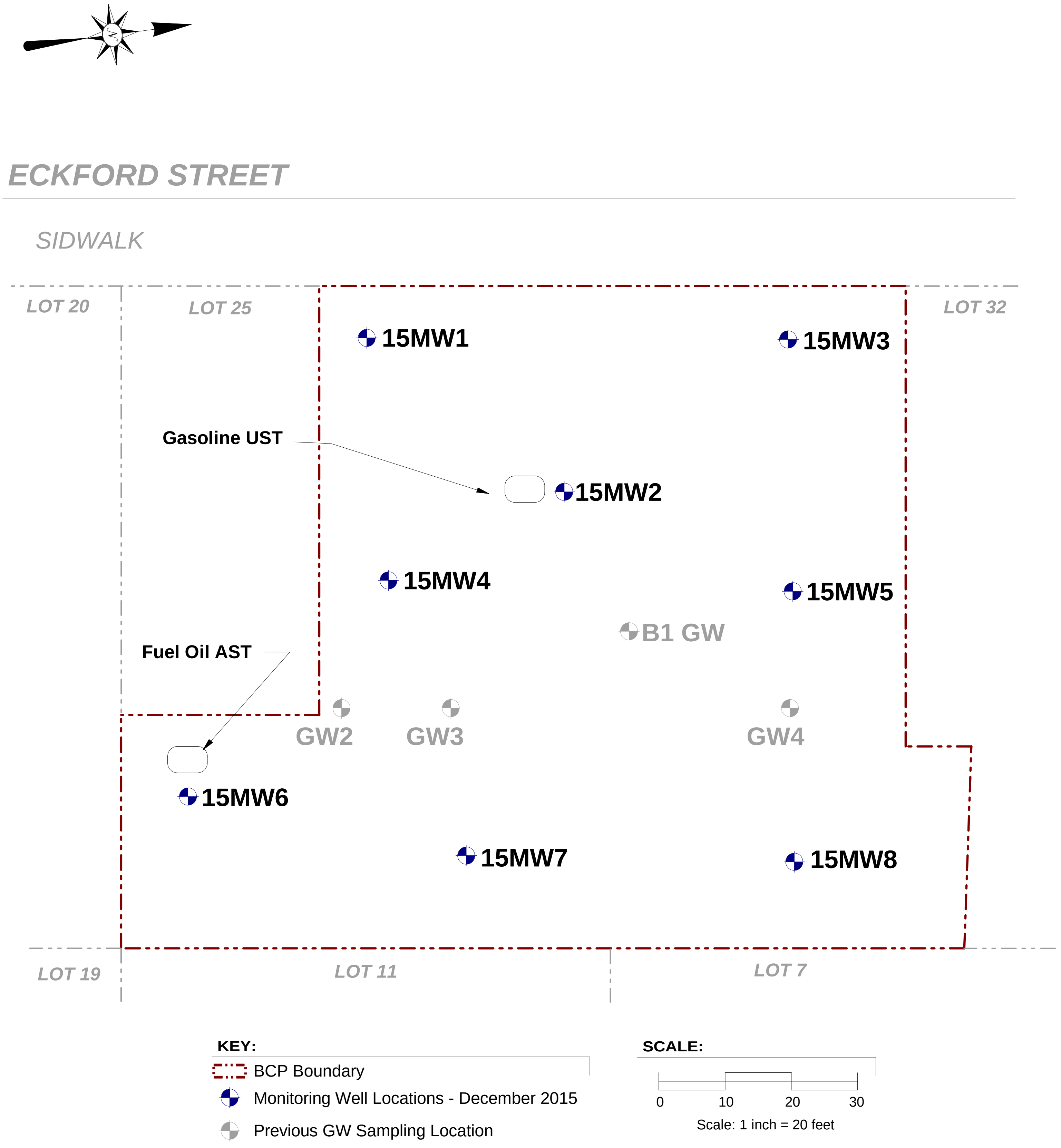

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Figure No.
4

Site Name: FORMER CARTER SPRAY FINISHING CORP.

Site Address: 65 ECKFORD STREET, BROOKLYN, NY 11222

Drawing Title: MONITORING WELL LOCATIONS

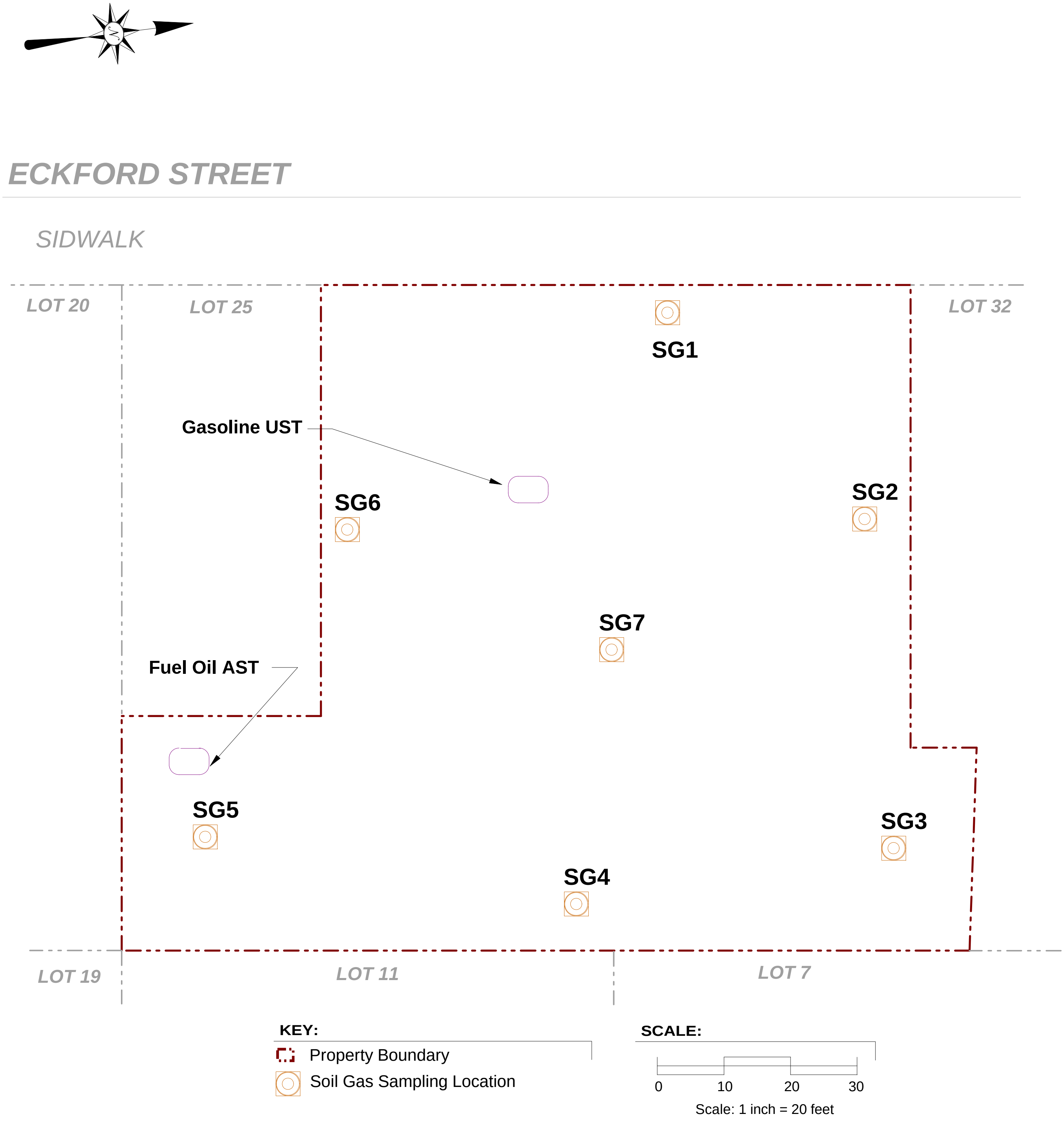

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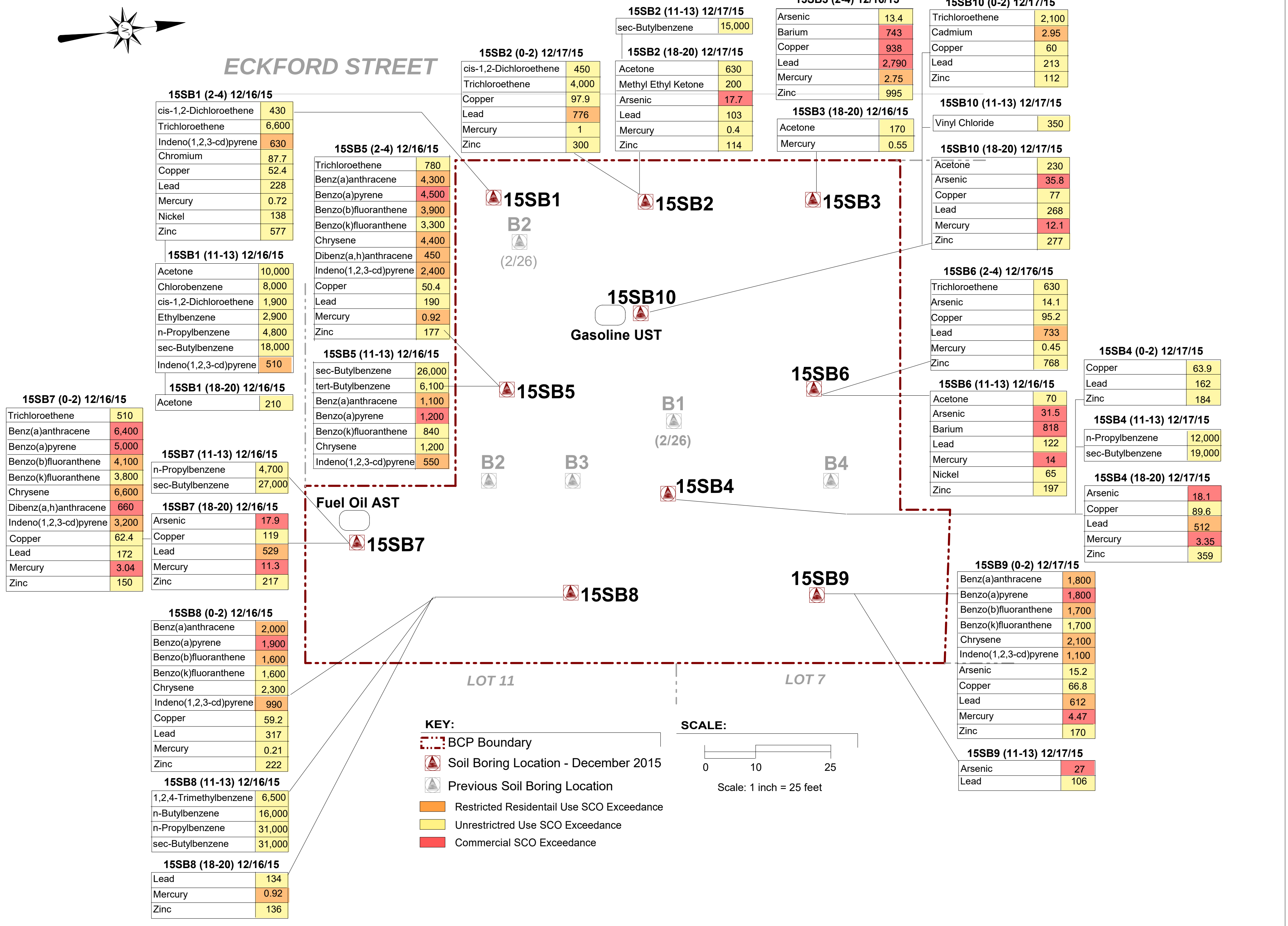
Figure No.
6

Site Name: FORMER CARTER SPRAY FINISHING CORP.
Site Address: 65 ECKFORD STREET, BROOKLYN, NY 11222
Drawing Title: SOIL GAS SAMPLING LOCATIONS



15SB1 (2-4) 12/16/15

cis-1,2-Dichloroethene	430
Trichloroethene	6,600
Indeno(1,2,3-cd)pyrene	630
Chromium	87.7
Copper	52.4
Lead	228
Mercury	0.72
Nickel	138
Zinc	577

15SB1 (11-13) 12/16/15

Acetone	10,000
Chlorobenzene	8,000
cis-1,2-Dichloroethene	1,900
Ethylbenzene	2,900
n-Propylbenzene	4,800
sec-Butylbenzene	18,000
Indeno(1,2,3-cd)pyrene	510

15SB1 (18-20) 12/16/15

Acetone	210

15SB2 (0-2) 12/17/15

cis-1,2-Dichloroethene	450
Trichloroethene	4,000
Copper	97.9
Lead	776
Mercury	1
Zinc	300

15SB2 (11-13) 12/17/15

sec-Butylbenzene	15,000

15SB2 (18-20) 12/17/15

Acetone	630
Methyl Ethyl Ketone	200
Arsenic	17.7
Lead	103
Mercury	0.4
Zinc	114

15SB3 (2-4) 12/16/15

Arsenic	13.4
Barium	743
Copper	938
Lead	2,790
Mercury	2.75
Zinc	995

15SB3 (18-20) 12/16/15

Acetone	170
Mercury	0.55

15SB10 (0-2) 12/17/15

Trichloroethene	2,100
Cadmium	2.95
Copper	60
Lead	213
Zinc	112

15SB10 (11-13) 12/17/15

Vinyl Chloride	350

15SB10 (18-20) 12/17/15

Acetone	230
Arsenic	35.8
Copper	77
Lead	268
Mercury	12.1
Zinc	277

15SB5 (2-4) 12/16/15

Trichloroethene	780
Benz(a)anthracene	4,300
Benzo(a)pyrene	4,500
Benzo(b)fluoranthene	3,900
Benzo(k)fluoranthene	3,300
Chrysene	4,400
Dibenz(a,h)anthracene	450
Indeno(1,2,3-cd)pyrene	2,400
Copper	50.4
Lead	190
Mercury	0.92
Zinc	177

15SB5 (11-13) 12/16/15

sec-Butylbenzene	26,000
tert-Butylbenzene	6,100
Benz(a)anthracene	1,100
Benzo(a)pyrene	1,200
Benzo(k)fluoranthene	840
Chrysene	1,200
Indeno(1,2,3-cd)pyrene	550

15SB6 (2-4) 12/176/15

Trichloroethene	630
Arsenic	14.1
Copper	95.2
Lead	733
Mercury	0.45
Zinc	768

15SB6 (11-13) 12/16/15

Acetone	70
Arsenic	31.5
Barium	818
Lead	122
Mercury	14
Nickel	65
Zinc	197

15SB4 (0-2) 12/17/15

Copper	63.9
Lead	162
Zinc	184

15SB4 (11-13) 12/17/15

n-Propylbenzene	12,000
sec-Butylbenzene	19,000

15SB4 (18-20) 12/17/15

Arsenic	18.1
Copper	89.6
Lead	512
Mercury	3.35
Zinc	359

15SB7 (0-2) 12/16/15

Trichloroethene	510
Benz(a)anthracene	6,400
Benzo(a)pyrene	5,000
Benzo(b)fluoranthene	4,100
Benzo(k)fluoranthene	3,800
Chrysene	6,600
Dibenz(a,h)anthracene	660
Indeno(1,2,3-cd)pyrene	3,200
Copper	62.4
Lead	172
Mercury	3.04
Zinc	150

15SB7 (11-13) 12/16/15

n-Propylbenzene	4,700
sec-Butylbenzene	27,000

15SB7 (18-20) 12/16/15

Arsenic	17.9
Copper	119
Lead	529
Mercury	11.3
Zinc	217

15SB9 (0-2) 12/17/15

Benz(a)anthracene	1,800
Benzo(a)pyrene	1,800
Benzo(b)fluoranthene	1,700
Benzo(k)fluoranthene	1,700
Chrysene	2,100
Indeno(1,2,3-cd)pyrene	1,100
Arsenic	15.2
Copper	66.8
Lead	612
Mercury	4.47
Zinc	170

15SB9 (11-13) 12/17/15

Arsenic	27
Lead	106

15SB8 (0-2) 12/16/15

Benz(a)anthracene	2,000
Benzo(a)pyrene	1,900
Benzo(b)fluoranthene	1,600
Benzo(k)fluoranthene	1,600
Chrysene	2,300
Indeno(1,2,3-cd)pyrene	990
Copper	59.2
Lead	317
Mercury	0.21
Zinc	222

15SB8 (11-13) 12/16/15

1,2,4-Trimethylbenzene	6,500
n-Butylbenzene	16,000
n-Propylbenzene	31,000
sec-Butylbenzene	31,000

15SB8 (18-20) 12/16/15

Lead	134
Mercury	0.92
Zinc	136

KEY:

BCP Boundary
Soil Boring Location - December 2015
Previous Soil Boring Location
🟧 Restricted Residentail Use SCO Exceedance
🟨 Unrestrictred Use SCO Exceedance
🟥 Commercial SCO Exceedance

SCALE:

0 10 25

Scale: 1 inch = 25 feet

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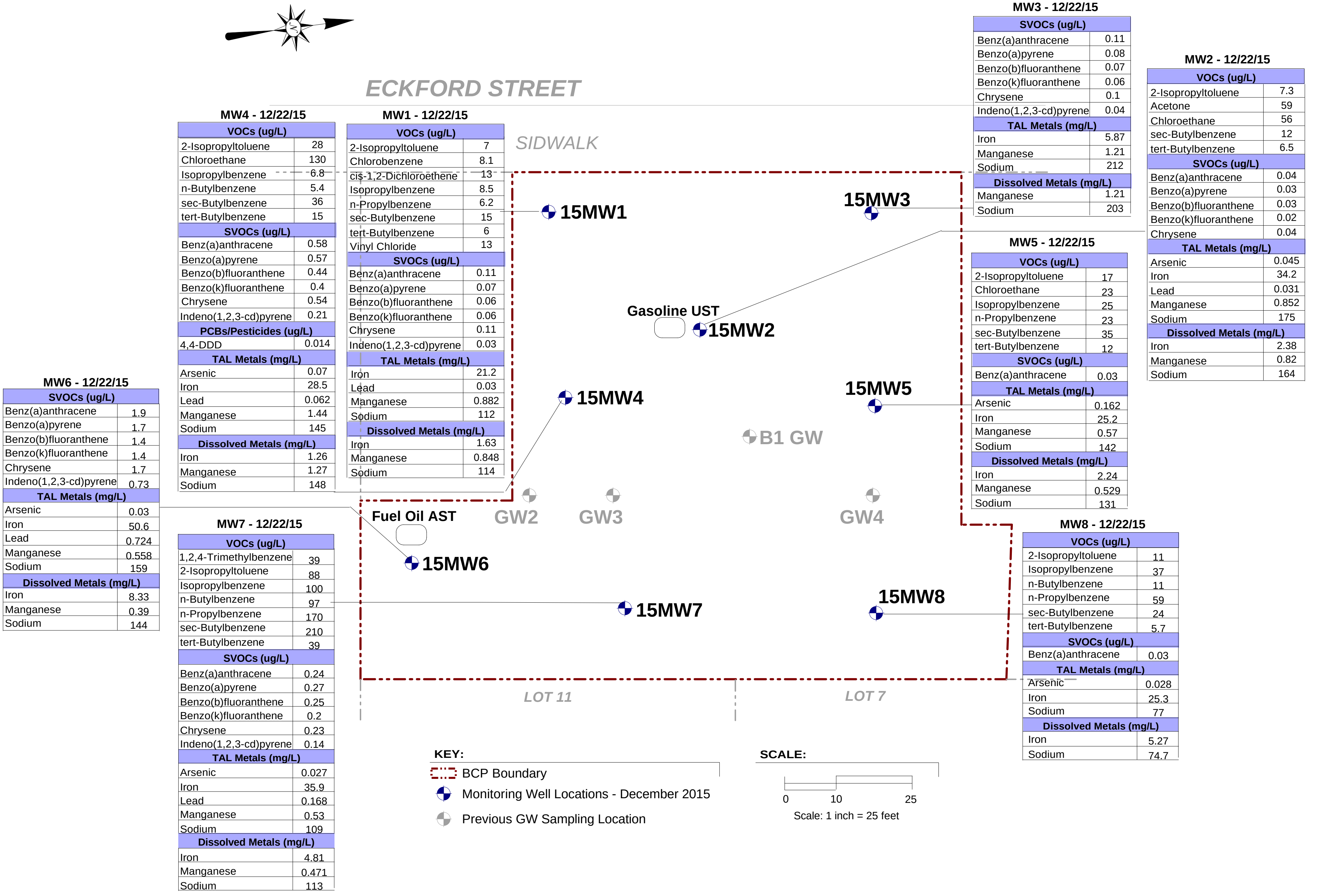
Figure No.
7

Site Name: FORMER CARTER SPRAY FINISHING CORP.
Site Address: 65 ECKFORD STREET, BROOKLYN, NY 11222
Drawing Title: POSTED SOIL EXCEEDENCES MAP



MW4 - 12/22/15

VOCs (ug/L)	
2-Isopropyltoluene	28
Chloroethane	130
Isopropylbenzene	6.8
n-Butylbenzene	5.4
sec-Butylbenzene	36
tert-Butylbenzene	15
SVOCs (ug/L)	
Benz(a)anthracene	0.58
Benzo(a)pyrene	0.57
Benzo(b)fluoranthene	0.44
Benzo(k)fluoranthene	0.4
Chrysene	0.54
Indeno(1,2,3-cd)pyrene	0.21
PCBs/Pesticides (ug/L)	
4,4-DDD	0.014
TAL Metals (mg/L)	
Arsenic	0.07
Iron	28.5
Lead	0.062
Manganese	1.44
Sodium	145
Dissolved Metals (mg/L)	
Iron	1.26
Manganese	1.27
Sodium	148

MW1 - 12/22/15

VOCs (ug/L)	
2-Isopropyltoluene	7
Chlorobenzene	8.1
cis-1,2-Dichloroethene	13
Isopropylbenzene	8.5
n-Propylbenzene	6.2
sec-Butylbenzene	15
tert-Butylbenzene	6
Vinyl Chloride	13
SVOCs (ug/L)	
Benz(a)anthracene	0.11
Benzo(a)pyrene	0.07
Benzo(b)fluoranthene	0.06
Benzo(k)fluoranthene	0.06
Chrysene	0.11
Indeno(1,2,3-cd)pyrene	0.03
TAL Metals (mg/L)	
Iron	21.2
Lead	0.03
Manganese	0.882
Sodium	112
Dissolved Metals (mg/L)	
Iron	1.63
Manganese	0.848
Sodium	114

MW3 - 12/22/15

SVOCs (ug/L)	
Benz(a)anthracene	0.11
Benzo(a)pyrene	0.08
Benzo(b)fluoranthene	0.07
Benzo(k)fluoranthene	0.06
Chrysene	0.1
Indeno(1,2,3-cd)pyrene	0.04
TAL Metals (mg/L)	
Iron	5.87
Manganese	1.21
Sodium	212
Dissolved Metals (mg/L)	
Manganese	1.21
Sodium	203

MW2 - 12/22/15

VOCs (ug/L)	
2-Isopropyltoluene	7.3
Acetone	59
Chloroethane	56
sec-Butylbenzene	12
tert-Butylbenzene	6.5
SVOCs (ug/L)	
Benz(a)anthracene	0.04
Benzo(a)pyrene	0.03
Benzo(b)fluoranthene	0.03
Benzo(k)fluoranthene	0.02
Chrysene	0.04
TAL Metals (mg/L)	
Arsenic	0.045
Iron	34.2
Lead	0.031
Manganese	0.852
Sodium	175
Dissolved Metals (mg/L)	
Iron	2.38
Manganese	0.82
Sodium	164

MW5 - 12/22/15

VOCs (ug/L)	
2-Isopropyltoluene	17
Chloroethane	23
Isopropylbenzene	25
n-Propylbenzene	23
sec-Butylbenzene	35
tert-Butylbenzene	12
SVOCs (ug/L)	
Benz(a)anthracene	0.03
TAL Metals (mg/L)	
Arsenic	0.162
Iron	25.2
Manganese	0.57
Sodium	142
Dissolved Metals (mg/L)	
Iron	2.24
Manganese	0.529
Sodium	131

MW6 - 12/22/15

SVOCs (ug/L)	
Benz(a)anthracene	1.9
Benzo(a)pyrene	1.7
Benzo(b)fluoranthene	1.4
Benzo(k)fluoranthene	1.4
Chrysene	1.7
Indeno(1,2,3-cd)pyrene	0.73
TAL Metals (mg/L)	
Arsenic	0.03
Iron	50.6
Lead	0.724
Manganese	0.558
Sodium	159
Dissolved Metals (mg/L)	
Iron	8.33
Manganese	0.39
Sodium	144

MW7 - 12/22/15

VOCs (ug/L)	
1,2,4-Trimethylbenzene	39
2-Isopropyltoluene	88
Isopropylbenzene	100
n-Butylbenzene	97
n-Propylbenzene	170
sec-Butylbenzene	210
tert-Butylbenzene	39
SVOCs (ug/L)	
Benz(a)anthracene	0.24
Benzo(a)pyrene	0.27
Benzo(b)fluoranthene	0.25
Benzo(k)fluoranthene	0.2
Chrysene	0.23
Indeno(1,2,3-cd)pyrene	0.14
TAL Metals (mg/L)	
Arsenic	0.027
Iron	35.9
Lead	0.168
Manganese	0.53
Sodium	109
Dissolved Metals (mg/L)	
Iron	4.81
Manganese	0.471
Sodium	113

MW8 - 12/22/15

VOCs (ug/L)	
2-Isopropyltoluene	11
Isopropylbenzene	37
n-Butylbenzene	11
n-Propylbenzene	59
sec-Butylbenzene	24
tert-Butylbenzene	5.7
SVOCs (ug/L)	
Benz(a)anthracene	0.03
TAL Metals (mg/L)	
Arsenic	0.028
Iron	25.3
Sodium	77
Dissolved Metals (mg/L)	
Iron	5.27
Sodium	74.7

KEY:

- ▭ BCP Boundary
- ● Monitoring Well Locations - December 2015
- ○ Previous GW Sampling Location

SCALE:

Scale: 1 inch = 25 feet

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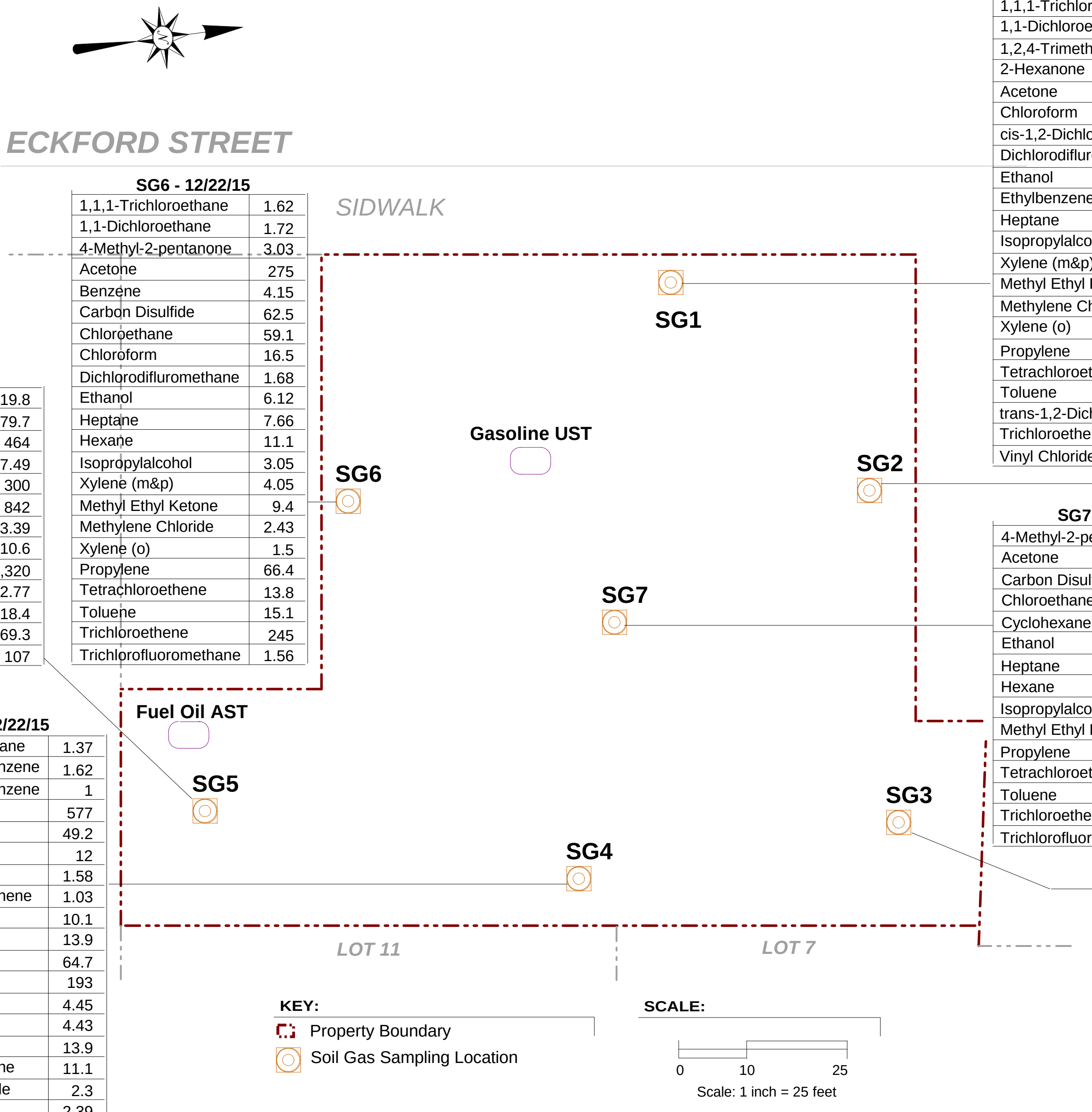
Phone 631.504.6000
Fax 631. 924 .2870

Figure No.
8

Site Name: Former Carter Spray Finishing Corp.
Site Address: 65 Eckford Street, Brooklyn, NY 11222
Drawing Title: Groundwater Exceedences



SG1 - 12/22/15

1,1,1-Trichloroethane	3.38
1,1-Dichloroethane	6.63
1,2,4-Trimethylbenzene	1.64
2-Hexanone	4.3
Acetone	475
Chloroform	33
cis-1,2-Dichloroethene	85.2
Dichlorodifluromethane	2.14
Ethanol	8.94
Ethylbenzene	1.1
Heptane	1.45
Isopropylalcohol	4.03
Xylene (m&p)	4.34
Methyl Ethyl Ketone	13.9
Methylene Chloride	2.75
Xylene (o)	1.17
Propylene	3.61
Tetrachloroethene	69.8
Toluene	9.91
trans-1,2-Dichloroethene	15.5
Trichloroethene	1,650
Vinyl Chloride	1.26

SG2 - 12/22/15

1,2,4-Trimethylbenzene	1.24
Acetone	451
Benzene	2.29
Carbon Disulfide	2.3
Dichlorodifluromethane	128
Ethanol	14.8
Ethylbenzene	1.3
Heptane	16.2
Hexane	46.5
Isopropylalcohol	7.17
Xylene (m&p)	4.13
Methyl Ethyl Ketone	14.2
Methylene Chloride	1.07
Xylene (o)	1.15
Propylene	160
Tetrachloroethene	0.72
Toluene	7.65
Trichloroethene	4.04
Vinyl Chloride	7.43

SG6 - 12/22/15

1,1,1-Trichloroethane	1.62
1,1-Dichloroethane	1.72
4-Methyl-2-pentanone	3.03
Acetone	275
Benzene	4.15
Carbon Disulfide	62.5
Chloroethane	59.1
Chloroform	16.5
Dichlorodifluromethane	1.68
Ethanol	6.12
Heptane	7.66
Hexane	11.1
Isopropylalcohol	3.05
Xylene (m&p)	4.05
Methyl Ethyl Ketone	9.4
Methylene Chloride	2.43
Xylene (o)	1.5
Propylene	66.4
Tetrachloroethene	13.8
Toluene	15.1
Trichloroethene	245
Trichlorofluoromethane	1.56

SG5 - 12/22/15

Benzene	19.8
Carbon Disulfide	79.7
Cyclohexane	464
Ethanol	7.49
Heptane	300
Hexane	842
Isopropylalcohol	3.39
Xylene (o)	10.6
Propylene	1,320
Tetrachloroethene	2.77
Toluene	18.4
Trichloroethene	69.3
Vinyl Chloride	107

SG7 - 12/22/15

4-Methyl-2-pentanone	5.77
Acetone	203
Carbon Disulfide	29.4
Chloroethane	7.17
Cyclohexane	10.9
Ethanol	6.23
Heptane	6.47
Hexane	18.1
Isopropylalcohol	8.55
Methyl Ethyl Ketone	5.36
Propylene	182
Tetrachloroethene	14.3
Toluene	6.21
Trichloroethene	38
Trichlorofluoromethane	30.9

SG4 - 12/22/15

1,1,1-Trichloroethane	1.37
1,2,4-Trimethylbenzene	1.62
1,3,5-Trimethylbenzene	1
Acetone	577
Benzene	49.2
Carbon Disulfide	12
Chloroform	1.58
cis-1,2-Dichloroethene	1.03
Ethanol	10.1
Ethylbenzene	13.9
Heptane	64.7
Hexane	193
Isopropylalcohol	4.45
Isopropylbenzene	4.43
Xylene (m&p)	13.9
Methyl Ethyl Ketone	11.1
Methylene Chloride	2.3
Xylene (o)	2.39
Propylene	473
Tetrachloroethene	7.93
Toluene	20.4
Trichloroethene	6.18

SG3 - 12/22/15

1,1,1-Trichloroethane	47.6
1,2,4-Trimethylbenzene	1.26
Acetone	117
Carbon Disulfide	1.85
Dichlorodifluromethane	2.06
Ethanol	4.59
Isopropylalcohol	1.94
Xylene (m&p)	1.86
Methyl Ethyl Ketone	2.88
Methylene Chloride	3.1
Propylene	5.87
Tetrachloroethene	7.39
Toluene	2.07
Trichloroethene	14.1
Trichlorofluoromethane	1.99

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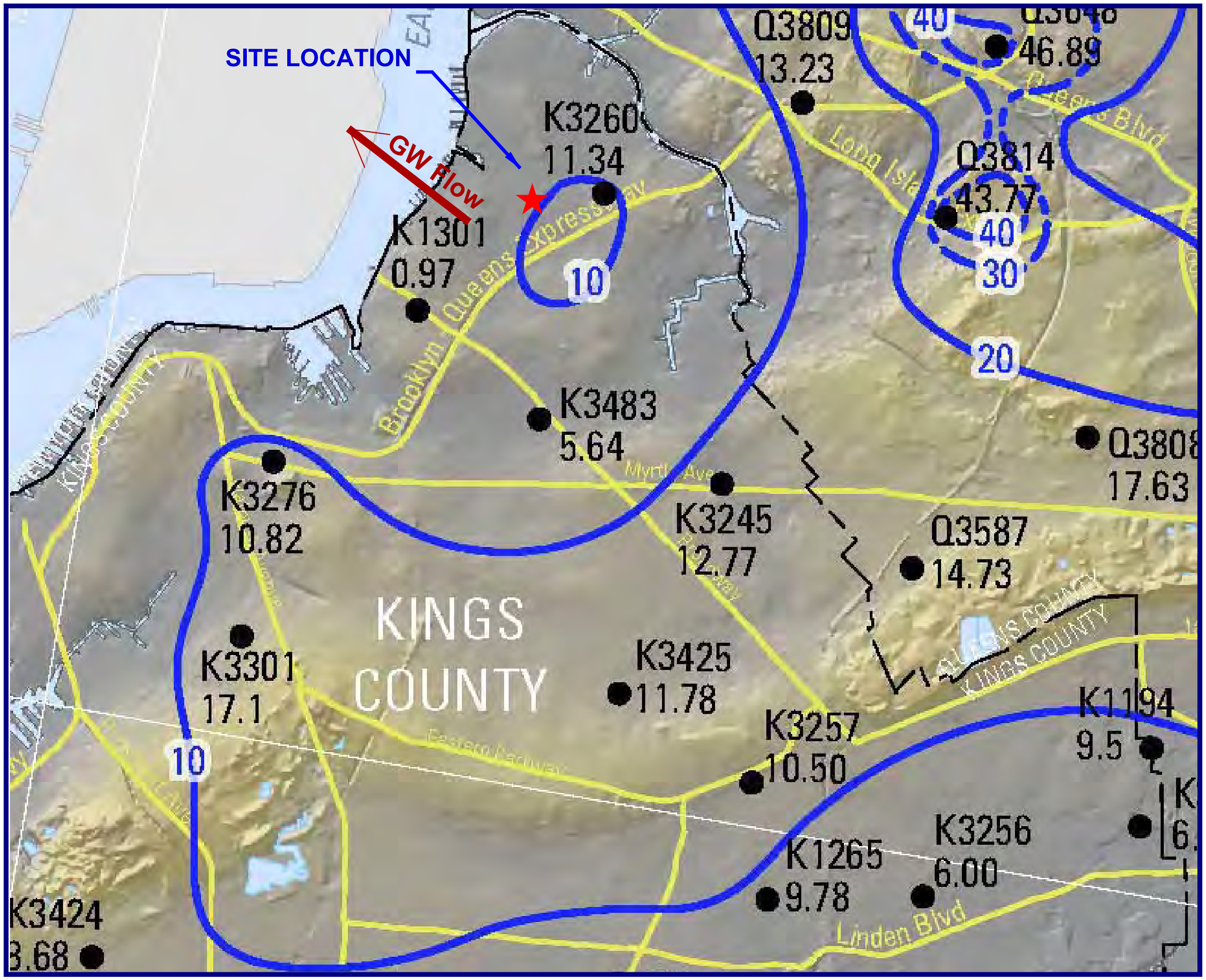
Phone 631.504.6000
Fax 631. 924 .2870

Figure No.
9

Site Name: Former Carter Spray Finishing Corp.
Site Address: 65 Eckford Street, Brooklyn, NY 11222
Drawing Title: Soil Gas Detections



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ENVIRONMENTAL BUSINESS CONSULTANTS

1808 MIDDLE COUNTRY ROAD. RIDGE. NY 11961

Phone 631.504.6000

Fax 631.924.2780

FORMER CARTER SPRAY FINISHING CORP.

65 ECKFORD STREET, BROOKLYN, NY

FIGURE 10 REGIONAL GROUNDWATER MAP

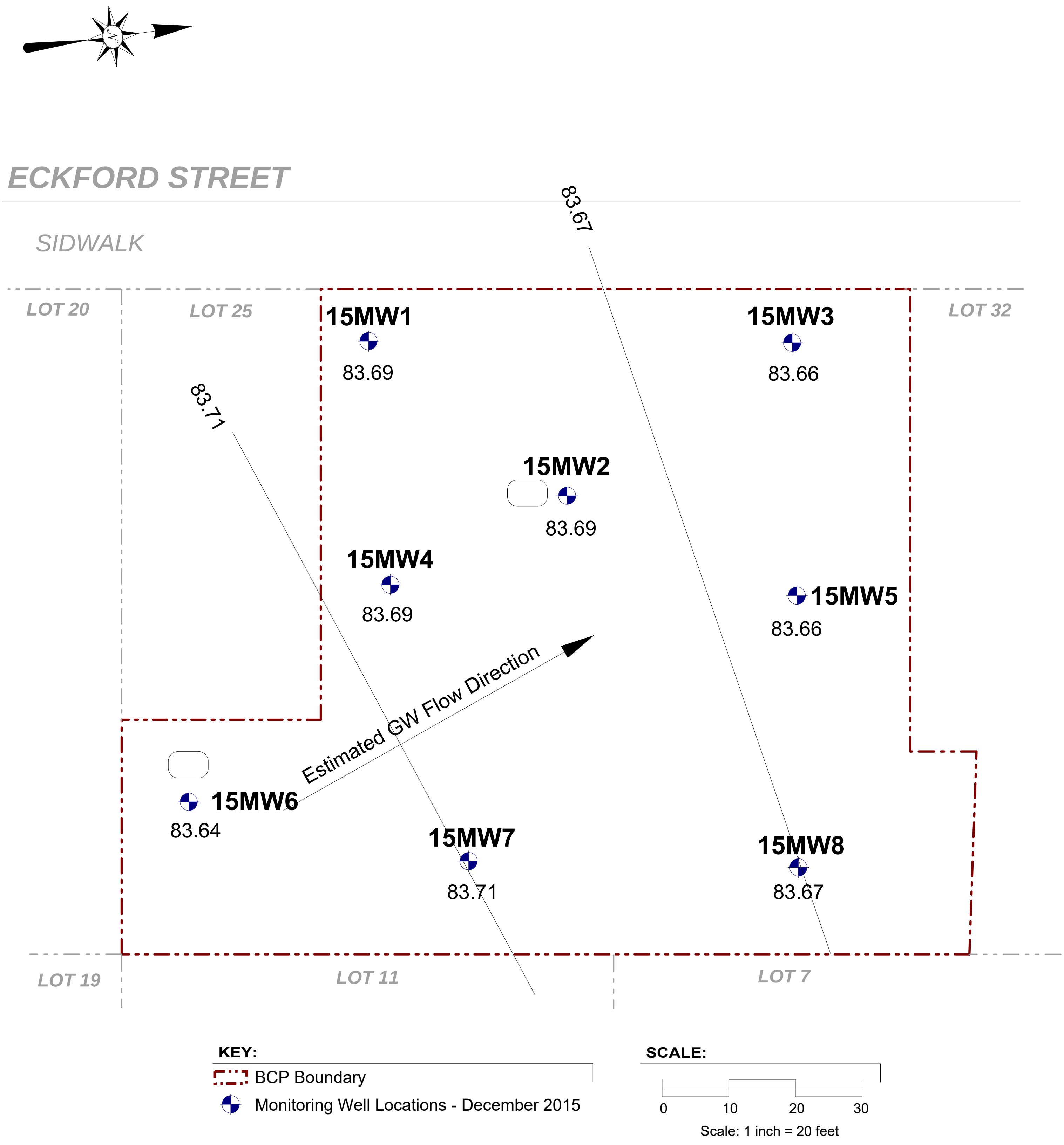

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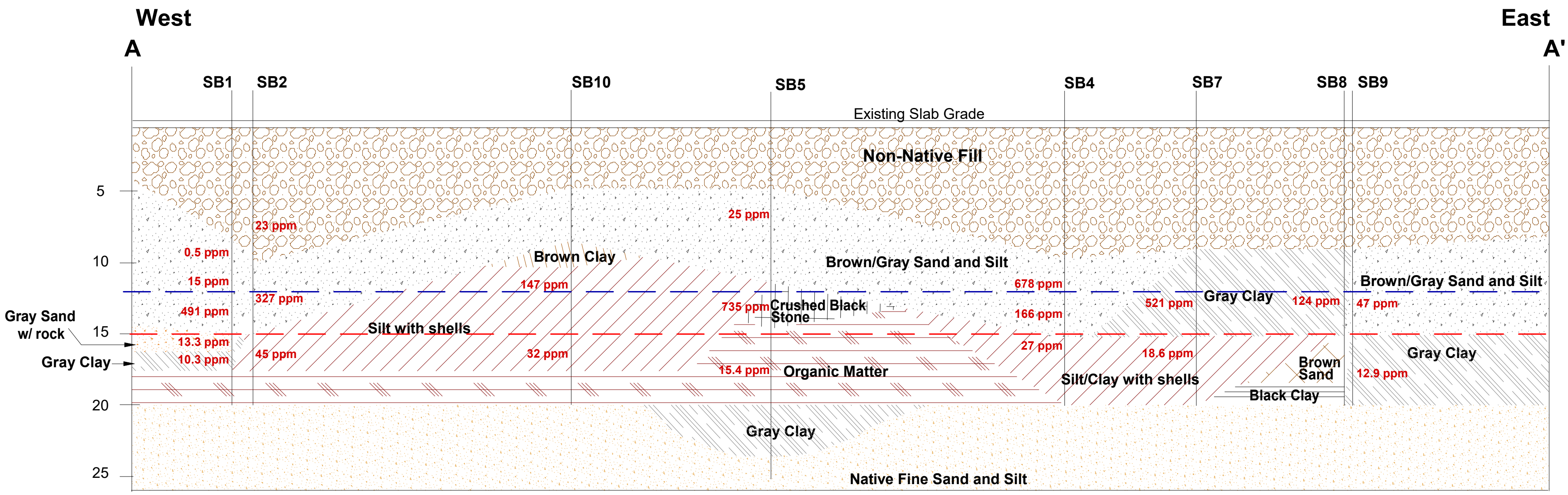
Figure No.
11

Site Name: FORMER CARTER SPRAY FINISHING CORP.

Site Address: 65 ECKFORD STREET, BROOKLYN, NY 11222

Drawing Title: SITE GROUNDWATER ELEVATION MAP



SCALE:

0 5 10 20

1 Inch = 10 Feet

KEY:

🟥 Foundation and Footing Excavation Depth

🟦 Excavation Depth/Depth to Groundwater

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Figure No.
12

Site Name: FORMER CARTER SPRAY FINISHING CORP.

Site Address: 65 ECKFORD STREET, BROOKLYN, NY

Drawing Title: GEOLOGIC CROSS SECTION

APPENDIX B

Field Sampling Plan

FIELD SAMPLING PLAN
65 ECKFORD STREET
BROOKLYN, NEW YORK

by
Haley & Aldrich of New York
New York, New York

for
New York State Department of Environmental Conservation
Albany, NY

File No. 0202156-002
November 2021

Table of Contents

Table of Contents

1. Introduction

This Field Sampling Plan (FSP) has been prepared as a component of the Supplemental Investigation Work Plan (SIWP) for the subject Site located at 65 Eckford Street in Brooklyn, New York. This document was prepared to establish field procedures for field data collection to be performed in support of the SIWP for the Site.

The SIWP includes this Field Sampling Plan, a Quality Assurance Project Plan (QAPP), Health and Safety Plan (HASP), and Community Air Monitoring Plan (CAMP), which are included as part of this plan by reference.

The standard operating procedures (SOP) included as components of this plan will provide the procedures necessary to meet the project objectives. The SOPs will be used as reference for the methods to be employed for field sample collection and handling and the management of field data collected in the execution of the approved RIWP. The SOPs include numerous methods to execute the tasks of the RIWP. The Project Manager will select the appropriate method as required by field conditions and/or the objective of the respective project task at the time of sample collection. Field procedures will be conducted in general accordance with the New York State Department of Conservation (NYSDEC) Technical Guidance for Site Investigation and Remediation (DER-10) and the Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) under NYSDEC Part 375 Remedial Program when applicable.

2. Field Program

This FSP provides the general purpose of sampling as well as procedural information. The SIWP contains the details on sampling and analysis (locations, depths, frequency, analyte lists, etc.).

The field program has been designed to acquire the necessary data to comply with the SIWP, and includes the following tasks:

- Soil sampling;
- Groundwater sampling;
- Soil vapor sampling;
- Sampling of investigation of derived wastes (IDW) as needed for disposal.

A Remedial Investigation was performed at the Site by Environmental Business Consultants in 2015, for the anticipated contaminants based on the Site's uses and has partially determined the nature and extent of volatile organic compound (VOC), semi-volatile organic compound (SVOC), polychlorinated biphenyl (PCB), pesticide, and metal contaminants. The Site characterization did not identify a source of contamination on the Site and did not sample for emerging contaminants, therefore additional targeted soil sampling, and sampling of groundwater and soil vapor is proposed.

These SOPs presented herein may be changed as required, dependent on-site conditions, or equipment limitations, at the time of sample collection. If the procedures employed differ from the SOP, the deviations will be documented in the associated sampling report.

3. Utility Clearance

Invasive remedial activities such as excavation or remedial construction activities require location of underground utilities prior to initiating work. Such clearance is sound practice in that it minimizes the potential for damage to underground facilities and more importantly, is protective of the health and safety of personnel. Under no circumstances will invasive activities be allowed to proceed without obtaining proper utility clearance by the appropriate public agencies and/or private entities. This clearance requirement applies to all work on both public and private property, whether located in a dense urban area or a seemingly out-of-the-way rural location.

The drilling contractor performing the work will be responsible for obtaining utility clearance.

Utility clearance is required by law, and obtaining clearance includes contacting a public or private central clearance agency via a “one-call” telephone service and providing the proposed exploration location information. It is important to note that public utility agencies may not, and usually do not have information regarding utility locations on private property.

Before beginning subsurface work at any proposed exploration locations, it is critical that all readily-available information on underground utilities and structures be obtained. This includes publicly available information as well as information in the possession of private landowners. Any drawings obtained must be reviewed in detail for information pertaining to underground utilities.

Using the information obtained, the site should be viewed in detail for physical evidence of buried lines or structures, including pavement cuts and patches, variation in or lack of vegetation, variations in grading, etc. Care must also be taken to avoid overhead utilities as well. Presence of surface elements of buried utilities should be documented, such as manholes, gas or water service valves, catch basins, monuments or other evidence.

Overhead utility lines must be considered when choosing exploration and excavation locations. Most states require a minimum of 10 ft of clearance between equipment and energized wires. Such separation requirements may also be voltage-based and may vary depending on state or municipality regulations. In evaluating clearance from overhead lines, the same restrictions may apply to “drops”, or wires on a utility pole connecting overhead and underground lines.

Using the information obtained and observations made, proposed exploration or construction locations should be marked in the field. Marking locations can be accomplished using spray paint on the ground, stakes, or other means. All markings of proposed locations should be made in white, in accordance with the generally-accepted universal color code for facilities identification (AWMA 4/99):

- White: Proposed Excavation or Drilling location
- Pink: Temporary Survey Markings
- Red: Electrical Power Lines, Cables, Conduit and Lighting Cables
- Yellow: Gas, Oil, Steam, Petroleum or Gaseous Materials
- Orange: Communication, Alarm or Signal Lines, Cables or Conduits
- Blue: Potable Water
- Purple: Reclaimed Water, Irrigation and Slurry Lines

- Green: Sewers and Drain Lines

In order to effectively evaluate the proposed locations with these entities, detailed, accurate measurements between the proposed locations and existing surface features should be obtained. Such features can be buildings, street intersections, utility poles, guardrails, etc.

Obtaining the utility clearance generally involves the designated “One-Call” underground facilities protection organization for the area and the landowner and one or both following entities:

- A third-party utility locator company will be utilized to locate underground utilities outside of the public right-of-way; and/or
- “Soft dig” excavation techniques to confirm or deny the presence of underground utilities in the area.

The proposed locations should be evaluated in light of information available for existing underground facilities. The detailed measurement information described above will be required by the “one call” agency. The owners of the applicable, participating underground utilities are obligated to mark their respective facilities at the site in the colors described above. Utility stake-out activities will typically not commence for approximately 72 hours after the initial request is made.

The public and private utility entities generally only mark the locations of their respective underground facilities within public rights-of-way. Determination of the locations of these facilities on private property will be the responsibility of the property owner or Contractor. If available information does not contain sufficient detail to locate underground facilities with a reasonable amount of confidence, alternate measures may be appropriate, as described below. In some cases, the memory of a long-time employee of a facility on private property may be the best or only source of information. It is incumbent on the Consultant or Contractor to exercise caution and use good judgement when faced with uncertainty.

Note: It is important to note that not all utilities are participants in the “one-call” agency or process. As such, inquiries must be made with the “one-call” agency to determine which entities do not participate, so they can be contacted independently.

Most utility stakeouts have a limited time period for which they remain valid, typically two to three weeks. It is critical that this time period be considered to prevent expiration of clearance prior to completion of the invasive activities, and the need to repeat the stake-out process.

Care must be exercised to document receipt of notice from the involved agencies of the presence or absence of utilities in the vicinity of the proposed locations.

Most agencies will generally provide a telephone or fax communication indicating the lack of facilities in the project area. If contact is not made by all of the agencies identified by the “one-call” process, do not assume that such utilities are not present. Re-contact the “one-call” agency to determine the status.

For complicated sites with multiple proposed locations and multiple utilities, it is advisable to arrange an on-site meeting with utility representatives. This will minimize the potential for miscommunication amongst the involved parties.

Completion of the utility stake out process is not a guarantee that underground facilities will not be encountered in excavations or boreholes; in fact, most "one-call" agencies and individual utilities do not offer guarantees, nor do they accept liability for damage that might occur. In areas outside the public right-of-way, a utility locating service may be utilized to locate underground utilities. It is advisable that any invasive activities proceed with extreme caution in the upper four to five feet in the event the clearance has failed to identify an existing facility. This may necessitate hand-excavation or probing to confirm potential presence of shallow utilities. If uncertainty exists for any given utility, extra activities can be initiated to solve utility clearance concerns. These options include:

- Screening the proposed work areas with utility locating devices, and/or hiring a utility locating service to perform this task.
- Hand digging, augering or probing to expose or reveal shallow utilities and confirm presence and location. In northern climates, this may require advancing to below frost line, typically at least four feet.
- Using "soft dig" techniques that utilize specialized tools and compressed air to excavate soils and locate utilities. This technique is effective in locating utilities to a depth of four to five feet.

Equipment/Materials:

- White Spray paint
- Wooden stakes, painted white or containing white flagging
- Color-code key
- Available drawings

4. Field Data Recording

This procedure describes protocol for documenting the investigation activities in the field. Field data serves as the cornerstone for an environmental project, not only for site characterization but for additional phases of investigation or remedial design. Producing defensible data includes proper and appropriate recording of field data as it is obtained in a manner to preserve the information for future use. This procedure provides guidelines for accurate, thorough collection and preservation of written and electronic field data.

Field data to be recorded during the project generally includes, but is not limited to, the following:

- general field observations;
- numeric field measurements and instrument readings;
- quantity estimates;
- sample locations and corresponding sample numbers;
- relevant comments and details pertaining to the samples collected;
- documentation of activities, procedures and progress achieved;
- contractor pay item quantities;
- weather conditions;
- a listing of personnel involved in site-related activities;
- a log of conversations, site meetings and other communications; and,
- field decisions and pertinent information associated with the decisions.

4.1 Written Field Data

Written field data will be collected using a standardized, pre-printed field log form. In general, use of a field log form is preferable as it prompts field personnel to make appropriate observations and record data in a standardized format. This promotes completeness and consistency from one person to the next. Otherwise, electronic data collection using a handheld device produces equal completeness and consistency using a preformatted log form.

In the absence of an appropriate pre-printed form, the data should be recorded in an organized and structured manner in a dedicated project field log book. Log books must be hard cover, bound so that pages cannot be added or removed, and should be made from high-grade 50% rag paper with a water-resistant surface.

The following are guidelines for use of field log forms and log books:

1. Information must be factual and complete.
2. All entries will be made in black indelible ink with a ballpoint pen and will be written legibly. Do not use “rollerball” or felt tip-style pens, since the water-soluble ink can run or smear in the presence of moisture.
3. Field log forms should be consecutively numbered.
4. Each day’s work must start a new form/page.
5. At the end of each day, the current log book page or forms must be signed and dated by the field personnel making the entries.

6. Make data entries immediately upon obtaining the data. Do not make temporary notes in other locations for later transfer; this only increases the potential for error or loss of data.
7. Entry errors are to be crossed out with a single line and initialed by the person making the correction.
8. Do not leave blanks on log forms, if no entry is applicable for a given data field, indicate so with "NA" or a dash ("--").
9. At the earliest practical time, photocopies or typed versions of log forms and log book pages should be made and placed in the project file as a backup in the event the book or forms are lost or damaged.
10. Log books should be dedicated to one project only, i.e., do not record data from multiple projects in one log book.

4.2 Electronic Data

Electronic data recording involves electronic measurement of field information through the use of monitoring instruments, sensors, gauges, and equipment controls. The following is a list of guidelines for proper recording and management of electronic field data:

1. Field data management should follow requirements of a project-specific data management plan (DMP), if applicable.
2. Use only instruments that have been calibrated in accordance with manufacturer's recommendations.
3. Usage of instruments, controls and computers for the purpose of obtaining field data should only be performed by personnel properly trained and experienced in the use of the equipment and software.
4. Use only fully-licensed software on personal computers and laptops.
5. Loss of electronic files may mean loss of irreplaceable data. Every effort should be made to back up electronic files obtained in the field as soon as practical. A backup file placed on the file server will minimize the potential for loss.
6. Electronic files, once transferred from field instruments or laptops to office computers, should be protected if possible, to prevent unwanted or inadvertent manipulation or modification of data. Several levels of protection are usually available for spreadsheets, including making a file "read-only" or assigning a password to access the file.
7. Protect CD disks from exposure to moisture, excessive heat or cold, magnetic fields, or other potentially damaging conditions.
8. Remote monitoring is often used to obtain stored electronic data from site environmental systems. A thorough discussion of this type of electronic field data recording is beyond the scope of this Section. Such on-site systems are generally capable of storing a limited amount of data as a comma-delimited or spreadsheet file. Users must remotely access the monitoring equipment files via modem or other access and download the data. In order to minimize the potential for loss of data, access and downloading of data should be performed frequently enough to ensure the data storage capacity of the remote equipment is not exceeded.

Equipment/Materials:

- Appropriate field log forms, or iPad® or equivalent with preformatted log forms.
- Indelible ball point pen (do not use "rollerball" or felt-tip style pens);
- Straight edge;

- Pocket calculator; and
- Laptop computer (if required).

5. Aquifer Characterization

This procedure describes measurement of water levels in groundwater monitoring.

A synoptic gauging round will be completed to obtain water levels in monitoring wells. Water levels will be acquired in a manner that provides accurate data that can be used to calculate vertical and horizontal hydraulic gradients and other hydrogeologic parameters. Accuracy in obtaining the measurements is critical to ensure the usability of the data.

5.1 Procedure

In order to provide reliable data, water level monitoring events should be collected over as short a period of time as practical. Barometric pressure can affect groundwater levels and, therefore, observation of significant weather changes during the period of water level measurements must be noted. Rainfall events and groundwater pumping can also affect groundwater level measurements. Personnel collecting water level data must note if any of these controls are in effect during the groundwater level collection period. Due to possible changes during the groundwater level collection period, it is imperative that the time of data collection at each station be accurately recorded. Water levels will also be collected prior to any sample collection that day.

The depth to groundwater will be measured with an electronic depth-indicating probe. Prior to obtaining a measurement, a fixed reference point on the well casing will be established for each well to be measured. Unless otherwise established, the reference point is typically established and marked on the north side of the well casing. Do not use protective casings or flush-mounted road boxes as a reference, due to the potential for damage or settlement. The elevation of the reference point shall be obtained by accepted surveying methods, to the nearest 0.01 ft.

The water level probe will be lowered into the well until the meter indicates (via indicator light or tone) the water is reached. The probe will be raised above water level and slowly lowered again until water is indicated. The cable will be held against the side of the inner protective casing at the point designated for water level measurements and a depth reading taken. This procedure will be followed three times or until a consistent value is obtained. The value will be recorded to the nearest 0.01 feet on the Groundwater Level Monitoring Report form.

Upon completion, the probe will be raised to the surface and together with the amount of cable that entered the well casing, will be decontaminated in accordance with methods described in Equipment Decontamination Procedure.

Equipment/Materials:

- Battery-operated, non-stretch electronic water level probe with permanent markings at 0.01 ft. increments, such as the Solinst Model 101 or equivalent.
- The calibrated cable on the depth indicator will be checked against a surveyor's steel tape once per quarter year. A new cable will be installed if the cable has changed by more than 0.01% (0.01 feet for a 100-foot cable). See also the Field Instruments – Use and Calibration Procedure.
- Groundwater Level Monitoring Report form.

6. Sample Collection for Laboratory Analysis

6.1 SOIL SAMPLE COLLECTION FOR LABORATORY ANALYSIS

The following procedure is an introduction to soil sampling techniques and an outline of field staff responsibilities. All samples will be collected with dedicated sampling equipment.

6.1.1 Preparatory Requirements

Prior to the beginning of any remedial investigation or remedial measures activities, staff must attend a project briefing for the purpose of reviewing the project work plan, site and utility plans, drawings, applicable regulations, sampling location, depth, and criteria, site contacts, and other related documents. Health and safety concerns will be documented in a site-specific Health & Safety Plan.

A file folder for the field activities should be created and maintained such that all relevant documents and log forms likely to be useful for the completion of field activities by others are readily available in the event of personnel changes.

6.1.2 Soil Classification

The stratigraphic log is a factual description of the soil at the borehole location and is relied upon to interpret the soil characteristics, and their influence and significance in the subsurface environment. The accuracy of the stratigraphic log is to be verified by the person responsible for interpreting subsurface conditions. An accurate description of the soil stratigraphy is essential for a reasonable understanding of the subsurface conditions. Confirmation of the field description by examination of representative soil samples by the project geologist, hydrogeologist, or geotechnical engineer (whenever practicable) is recommended.

The ability to describe and classify soil correctly is a skill that is learned from a person with experience and by systematic training and comparison of laboratory results to field descriptions.

6.1.2.1 Data Recording

Several methods for classifying and describing soils or unconsolidated sediments are in relatively widespread use. The Unified Soil Classification System (USCS) is the most common. With the USCS, a soil is first classified according to whether it is predominantly coarse-grained or fine-grained.

The description of fill soil is similar to that of natural undisturbed soil except that it is identified as fill and not classified by USCS group, relative density, or consistency. Those logging soils must attempt to distinguish between soils that have been placed (i.e., fill) and not naturally present; or soils that have been naturally present but disturbed (i.e., disturbed native).

It is necessary to identify and group soil samples consistently to determine the subsurface pattern or changes and non-conformities in soil stratigraphy in the field at the time of drilling. The stratigraphy in each borehole during drilling is to be compared to the stratigraphy found at the previously completed boreholes to ensure that pattern or changes in soil stratigraphy are noted and that consistent terminology is used.

Visual examination, physical observations and manual tests (adapted from ASTM D2488, visual-manual procedures) are used to classify and group soil samples in the field and are summarized in this subsection. ASTM D2488 should be reviewed for detailed explanations of the procedures. Visual-manual procedures used for soil identification and classification include:

- visual determination of grain size, soil gradation, and percentage fines;
- dry strength, dilatancy, toughness, and plasticity (thread or ribbon test) tests for identification of inorganic fine-grained soil (e.g., CL, CH, ML, or MH); and
- soil compressive strength and consistency estimates based on thumb indent and pocket penetrometer (preferred) methods.

Soil characteristics like plasticity, strength and dilatancy should be determined using the Haley & Aldrich Soil Identification Field Form.

6.1.2.2 Field Sample Screening

Upon the collection of soil samples, the soil is screened with a photoionization detector (PID) for the presence of organic vapor. This is accomplished by running the PID across the soil sample. The highest reading and sustained readings are recorded.

Note: The PID measurement must be done upwind of the excavating equipment or any running engines so that exhaust fumes will not affect the measurements.

Another method of field screening is head space measurements. This consists of placing a portion of the soil sample in a sealable glass jar, placing aluminum foil over the jar top, and tightening the lid. Alternatively, plastic sealable bags may be utilized for field screen in lieu of glass containers. The jar should only be partially filled. Shake the jar and set aside for at least 30 minutes. After the sample has equilibrated, the lid of the jar can be opened; the foil is punctured with the PID probe and the air (headspace) above the soil sample is monitored. This headspace reading on the field form or in the field book is recorded. All head space measurements must be completed under similar conditions to allow comparability of results. Soil classification and PID readings will be recorded in the daily field report.

Equipment/Materials:

- Pocket knife or small spatula
- Small handheld lens
- Stratigraphic Log (Overburden) (Form 2001)
- Tape Measure
- When sampling for PFAS, acceptable materials for sampling include stainless steel, high density polyethylene (HDPE), PVC, silicone, acetate, and polypropylene.

6.1.3 Soil Sampling

Soil samples will be collected from acetate liners installed by a track-mounted direct push drill rig (Geoprobe®) operated by a licensed operator. Soil samples will be collected using a stainless-steel trowel or sampling spoon into laboratory provided sample containers. If it is necessary to relocate any proposed sampling location due to terrain, utilities, access, etc., the Project Manager must be notified, and an alternate location will be selected.

Prior to use and between each sampling location at an environmental site, the sampling equipment must be decontaminated. All decontamination must be conducted in accordance with the project specific plans or the methods presented in SOP 7.0.

6.1.4 Sampling Techniques

The following procedure describes typical soil sample collection methods for submission of samples to a laboratory for chemical analysis. The primary goal of soil sampling is to collect representative samples for examination and chemical analysis (if required).

Environmental soil samples obtained for chemical analyses are collected with special attention given to the rationale behind determining the precise zone to sample, the specifics of the method of soil extraction and the requisite decontamination procedures. Preservation, handling and glassware for environmental soil samples varies considerably depending upon several factors including the analytical method to be conducted, and the analytical laboratory being used.

6.1.4.1 Grab Versus Composite Samples

A grab sample is collected to identify and quantify conditions at a specific location or interval. The sample is comprised of the minimum amount of soil necessary to make up the volume of sample dictated by the required sample analyses. Composite samples may be obtained from several locations or along a linear trend (in a test pit or excavation). Sampling may occur within or across stratification.

6.2 GROUNDWATER SAMPLE COLLECTION FOR LABORATORY ANALYSIS

The following section describes two techniques for groundwater sampling: "Low Stress/Low Flow Methods" and "Typical Sampling Methods."

"Low Stress/Low Flow" methods will be employed when collecting groundwater samples for the evaluation of volatile constituents (i.e. dissolved oxygen (DO)) or in fine-grained formations where sediment/colloid transport is possible. Analyses typically sensitive to colloidal transport issues include polychlorinated biphenyls (PCBs), polyaromatic hydrocarbons (PAHs) and metals.

The "Typical Sampling Methods" will be employed where the collection of parameters less sensitive to turbidity/sediment issues are being collected (general chemistry, pesticides and other semi-volatile organic compounds (SVOCs)).

NOTE: If non-aqueous phase liquids (NAPL) (light or dense) are detected in a monitoring well, groundwater sample collection will not be conducted, and the Project Manager must be contacted to determine a course of action.

6.2.1 Preparatory Requirements

- Verify well identification and location using borehole log details and location layout figures. Note the condition of the well and record any necessary repair work required.

- Prior to opening the well cap, measure the breathing space above the well casing with a handheld organic vapor analyzer to establish baseline breathing space VOC levels. Repeat this measurement once the well cap is opened. If either of these measurements exceeds the air quality criteria in the HASP, field personnel should adjust their PPE accordingly.

- Prior to commencing the groundwater purging/sampling, a water level must be obtained to determine the well volume for hydraulic purposes. In some settings, it may be necessary to allow the water level time to equilibrate. This condition exists if a water tight seal exists at the well cap and the water level has fluctuated above the top of screen; creating a vacuum or pressurized area in this air space. Three water level checks will verify static water level conditions have been achieved.

- Calculate the volume of water in the well. Typically overburden well volumes consider only the quantity of water standing in the well screen and riser; bedrock well volumes are calculated on the quantity of water within the open core hole and within the overburden casing.

6.2.2 Well Development

Well development is completed to remove fine grained materials from the well but in such a manner as to not introduce fines from the formation into the sand pack. Well development continues until the well responds to water level changes in the formation (i.e., a good hydraulic connection is established between the well and formation) and the well produces clear, sediment-free water to the extent practical.

- Attach appropriate pump and lower tubing into well.
- Gauge well and calculate one well volume. Turn on pump. If well runs dry, shut off pump and allow to recover.
- Surging will be performed by raising and lowering the pump several times to pull fine-grained material from the well. Periodically measure turbidity level using a La Motte turbidity reader.
- The second and third steps will be repeated until turbidity is less than 50 nephelometric turbidity units (NTU) or when 10 well volumes have been removed.
- All water generated during cleaning and development procedures will be collected and contained on site in 55-gallon drums for future analysis and appropriate disposal.

Equipment:

- Appropriate health and safety equipment
- Knife
- Power source (generator)
- Field book
- Well Development Form (Form 3006)
- Well keys

- Graduated pails
- Pump and tubing
- Cleaning supplies (including non-phosphate soap, buckets, brushes, laboratory-supplied distilled/deionized water, tap water, cleaning solvent, aluminum foil, plastic sheeting, etc.) Water level meter

6.2.3 Well Purging and Stabilization Monitoring (Low Stress/Low Flow Method)

The preferred method for groundwater sampling will be the low stress/low flow method described below.

- Slowly lower the pump, safety cable, tubing and electrical lines into the well to the depth specified by the project requirements. The pump intake must be at the midpoint of the well screen to prevent disturbance and resuspension of any sediment in the screen base.

- Before starting the pump, measure the water level again with the pump in the well leaving the water level measuring device in the well when completed.

- Purge the well at 100 to a maximum of 500 milliliters per minute (mL/min). During purging, the water level should be monitored approximately every 5 minutes, or as appropriate. A steady flow rate should be maintained that results in drawdown of 0.3 feet or less. The rate of pumping should not exceed the natural flow rate conditions of the well. Care should be taken to maintain pump suction and to avoid entrainment of air in the tubing. Record adjustments made to the pumping rates and water levels immediately after each adjustment.

- During the purging of the well, monitor and record the field indicator parameters (pH, temperature, conductivity, oxidation-reduction (redox) reaction potential (ORP), dissolved oxygen (DO), and turbidity) approximately every five minutes. Stabilization is considered to be achieved when the final groundwater flow rate is achieved, and three consecutive readings for each parameter are within the following limits:

    - pH: 0.1 pH units of the average value of the three readings;
    - Temperature: 3 percent of the average value of the three readings;
    - Conductivity: 0.005 milliSiemen per centimeter (mS/cm) of the average value of the three readings for conductivity <1 mS/cm and 0.01 mS/cm of the average value of the three readings for conductivity >1 mS/cm;
    - ORP: 10 millivolts (mV) of the average value of the three readings;
    - DO: 10 percent of the average value of the three readings; and
    - Turbidity: 10 percent of the average value of the three readings, or a final value of less than 50 nephelometric turbidity units (NTU).

- The pump must not be removed from the well between purging and sampling.

6.2.4 Sampling Techniques

- If an alternate pump is utilized, the first pump discharge volumes should be discarded to allow the equipment a period of acclimation to the groundwater.

- Samples are collected directly from the pump with the groundwater being discharged directly into the appropriate sample container. Avoid handling the interior of the bottle or bottle cap and don new gloves for each well sampled to avoid contamination of the sample.

- Order of sample collection:

    - Polyfluoroalkyl substances (PFAS)
    - Volatile organic compounds (VOC)
    - 1,4-Dioxane
    - Semi-volatile organic compounds (SVOC)
    - Total Analyte List (TAL) metals

- No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including plumbers tape and sample bottle cap liners with a PTFE layer.

- For low stress/low flow sampling, samples should be collected at a flow rate between 100 and 500 mL/min and such that drawdown of the water level within the well does not exceed the maximum allowable drawdown of 0.3 feet.

- The pumping rate used to collect a sample for VOC should not exceed 100 mL/min. Samples should be transferred directly to the final container 40 mL glass vials completely full and topped with a Teflon cap. Once capped the vial must be inverted and tapped to check for headspace/air presence (bubbles). If air is present, the sample will be discarded, and recollected until free of air.

- All samples must be labeled with:

    - A unique sample number
    - Date and time
    - Parameters to be analyzed
    - Project Reference ID
    - Samplers initials

- Labels should be written in indelible ink and secured to the bottle with clear tape.

Equipment/Materials:

- pH meter, conductivity meter, DO meter, ORP meter, nephelometer, temperature gauge
- Field filtration units (if required)
- Purging/sampling equipment
    - Peristaltic Pump
- Water level probe
- Sampling materials (containers, log book/forms, coolers, chain of custody)
- Work Plan
- Health and Safety Plan
- When sampling for PFAS, acceptable materials for sampling include stainless steel, HDPE, PVC, silicone, acetate, and polypropylene.

Note: 1,4-Dioxane and PFAS purge and sample techniques will be conducted following the NYSDEC guidance documents (see Appendix C of the RIWP). Acceptable groundwater pumps include stainless steel inertia pump with HDPE tubing, peristaltic pump equipped with HDPE tubing and silicone tubing, stainless steel bailer with stainless steel ball or bladder pump (identified as PFAS-free) with HDPE tubing.

Field Notes:

- Field notes must document all the events, equipment used, and measurements collected during the sampling activities. Section 2.0 describes the data/recording procedure for field activities.
- The log book should document the following for each well sampled:
  - Identification of well
  - Well depth
  - Static water level depth and measurement technique
  - Sounded well depth
  - Presence of immiscible layers and detection/collection method
  - Well yield – high or low
  - Purge volume and pumping rate
  - Time well purged
  - Measured field parameters
  - Purge/sampling device used
  - Well sampling sequence
  - Sampling appearance
  - Sample odors
  - Sample volume
  - Types of sample containers and sample identification
  - Preservative(s) used
  - Parameters requested for analysis
  - Field analysis data and method(s)
  - Sample distribution and transporter
  - Laboratory shipped to
  - Chain of custody number for shipment to laboratory
  - Field observations on sampling event
  - Name collector(s)
  - Climatic conditions including air temperature
  - Problems encountered and any deviations made from the established sampling protocol.

A standard log form for documentation and reporting groundwater purging and sampling events are presented on the Groundwater Sampling Record, Low Flow Groundwater Sampling Form, and Low Flow Monitored Natural Attenuation (MNA) Field Sampling Form. Refer to Appendix A for example field forms.

Groundwater/Decon Fluid Disposal:

- Groundwater disposal methods will vary on a case-by-case basis but may range from:

  - Off-site treatment at private treatment/disposal facilities or public owned treatment facilities
  - On-site treatment at Facility operated facilities
  - Direct discharge to the surrounding ground surface, allowing groundwater infiltration to the underlying subsurface regime
- Decontamination fluids should be segregated and collected separately from wash waters/groundwater containers.

6.3 SOIL VAPOR SAMPLING

The following procedure is an introduction to soil vapor sampling techniques and an outline of field staff responsibilities.

6.3.1 Preparatory Requirements

Prior to collecting the field sample, ensure the stainless steel oil vapor probe has been installed to the desired depth and sealed completely to the surface using a material such as bentonite. As part of the vapor intrusion evaluation, a tracer gas should be used in accordance with NYSDOH protocols to serve as a quality assurance/quality control (QA/QC) device to verify the integrity of the soil vapor probe seal. A container (box, plastic pail, etc.) will serve to keep the tracer gas in contact with the probe during testing. A portable monitoring device will be used to analyze a sample of soil vapor for the tracer gas prior to sampling. If the tracer sample results show a significant presence of the tracer, the probe seals will be adjusted to prevent infiltration. At the conclusion of the sampling round, tracer monitoring should be performed a second time to confirm the integrity of the probe seals.

6.3.2 Sampling Techniques

Samples will be collected in appropriately sized Summa canisters that have been certified clean by the laboratory and samples will be analyzed by using USEPA Method TO-15. Flow rate for both purging and sampling will not exceed 0.2 L/min. One to three implant volumes shall be purged prior to the collection of any soil-gas samples. A sample log sheet will be maintained summarizing sample identification, date and time of sample collection, sampling depth, identity of samplers, sampling methods and devices, soil vapor purge volumes, volume of the soil vapor extracted, vacuum of canisters before and after the samples are collected, apparent moisture content of the sampling zone, and chain of custody protocols.

6.4 SAMPLE HANDLING AND SHIPPING

Sample management is the continuous care given to each sample from the point of collection to receipt at the analytical laboratory. Good sample management ensures that samples are properly recorded, properly labeled, and not lost, broken, or exposed to conditions which may affect the sample's integrity.

All sample submissions must be accompanied with a chain of custody (COC) document to record sample collection and submission. Personnel performing sampling tasks must check the sample preparation and preservation requirements to ensure compliance with the Quality Assurance Project Plan.

The following sections provide the minimum standards for sample management.

6.4.1 Sample Handling

Prior to entering the field area where sampling is to be conducted, especially at sites with defined exclusion zones, the sampler should ensure that all materials necessary to complete the sampling are on hand. If samples must be maintained at a specified temperature after collection, dedicated coolers and ice must be available for use. Conversely, when sampling in cold weather, proper protection of water samples, trip blanks, and field blanks must be considered. Sample preservation will involve pH adjustment, cooling to 4°C, and sample filtration and preservation.

6.4.2 Sample Labeling

Samples must be properly labeled immediately upon collection.

Note that the data shown on the sample label is the minimum data required. The sample label data requirements are listed below for clarity.

- Project name
- Sample name/number/unique identifier
- Sampler's initials
- Date of sample collection
- Time of sample collection
- Analysis required
- Preservatives

To ensure that samples are not confused, a clear notation should be made on the container with a permanent marker. If the containers are too soiled for marking, the container can be put into a "zip lock" bag which can then be labeled.

All sample names will be as follows:

- Sample unique identifier: Enter the sample name or number. There should be NO slashes, spaces or periods in the date.
- Date: Enter the six-digit date when the sample was collected. Note that for one-digit days, months, and/or years, add zeros so that the format is MMDDYY (050210). There should be NO slashes, dashes, or periods in the date.

The QA/QC samples will be numbered consecutively as collected with a sample name, date and number of sample collected throughout the day (i.e. when multiple QA/QC samples are collected in one day).

Examples of this naming convention are as follows:

Sample Name:	Comments
TB-050202-0001	TRIP BLANK
TB-050202-0002	TRIP BLANK
FD-050202-0001	FIELD DUPLICATE
FD-050202-0002	FIELD DUPLICATE

NOTE: The QA/QC Sample # resets to 0001 EACH DAY, this will avoid having to look back to the previous day for the correct sequential number.

6.4.3 Field Code

The field code will be written in the 'Comments' field on the chain of custody for EVERY sample but will not be a part of the actual sample name. Enter the one/two-character code for type of sample (must be in CAPITALS):

N	Normal Field Sample
FD	Field Duplicate (note sample number (i.e. 0001) substituted for time)
TB	Trip Blank (note sample number (i.e. 0001) substituted for time)
EB	Equipment Blank (note sample number (i.e. 0001) substituted for time)
FB	Field Blank (note sample number (i.e. 0001) substituted for time)
KD	Known Duplicate
FS	Field Spike Sample
MS	Matrix Spike Sample (note on ‘Comments’ field of COC – laboratory to spike matrix.
MD	Matrix Spike Duplicate Sample (note on ‘Comments’ field of COC – laboratory to spike matrix.
RM	Reference Material

The sample labeling – both chain and sample bottles must be EXACTLY as detailed above. In addition, the Field Sample Key for each sample collected must be filled out.

6.4.4 Packaging

Sample container preparation and packing for shipment should be completed in a well-organized and clean area, free of any potential cross contamination. The following is a list of standard guidelines which must be followed when packing samples for shipment.

- Double bag ice in "Zip Lock" bags.
- Double check to ensure trip and temperature blanks have been included for all shipments containing VOCs, or where otherwise specified in the QAPP.
- Enclose the Chain of Custody form in a "Zip Lock" bag.
- Ensure custody seals (two, minimum) are placed on each cooler. Coolers with hinged lids should have both seals placed on the opening edge of the lid. Coolers with "free" lids should have seals placed on opposite diagonal corners of the lid. Place clear tape over custody seals.
- Containers should be wiped clean of all debris/water using paper towels (paper towels must be disposed of with other contaminated materials).
- Clear, wide packing tape should be placed over the sample label for protection.
- Do not bulk pack. Each sample must be individually padded.
- Large glass containers (1 liter and up) require much more space between containers.
- Ice is not a packing material due to the reduction in volume when it melts.

Note: Never store sterile sample containers in enclosures containing equipment which use any form of fuel or volatile petroleum-based product. When conducting sampling in freezing conditions at sites without a heated storage area (free of potential cross contaminants), unused trip blanks should be isolated from coolers immediately after receipt. Trip blanks should be double bagged and kept from freezing.

6.4.5 Chain-of-Custody Records

Chain of custody (COC) forms will be completed for all samples collected. The form documents the transfer of sample containers. The COC record, completed at the time of sampling, will contain, but not be limited to, the sample number, date and time of sampling, and the name of the sampler. The COC document will be signed and dated by the sampler when transferring the samples.

Each sample cooler being shipped to the laboratory will contain a COC form. The cooler will be sealed properly for shipment. The laboratory will maintain a copy for their records. One copy will be returned with the data deliverables package.

The following list provides guidance for the completion and handling of all COCs:

- COCs used should be a Haley & Aldrich standard form or supplied by the analytical laboratory.
- COCs must be completed in black ball point ink only.
- COCs must be completed neatly using printed text.
- If a simple mistake is made, cross out the error with a single line and initial and date the correction.
- Each separate sample entry must be sequentially numbered.
- If numerous repetitive entries must be made in the same column, place a continuous vertical arrow between the first entry and the next different entry.
- When more than one COC form is used for a single shipment, each form must be consecutively numbered using the "Page ___ of ___" format.
- If necessary, place additional instructions directly onto the COC in the Comment Section. Do not enclose separate instructions.
- Include a contact name and phone number on the COC in case there is a problem with the shipment.
- Before using an acronym on a COC, define clearly the full interpretation of your designation [i.e., polychlorinated biphenyls (PCBs)].

6.4.6 Shipment

Prior to the start of the field sampling, the carrier should be contacted to determine if pickup will be at the field site location. If pick-up is not available at the Site, the nearest pick-up or drop off location should be determined. Sample shipments must not be left at unsecured drop locations.

Copies of all shipment manifests must be maintained in the field file.

7. Field Instruments – Use and Calibration

A significant number of field activities involve usage of electronic instruments to monitor for environmental conditions and health and safety purposes. It is imperative the instruments are used and maintained properly to optimize their performance and minimize the potential for inaccuracies in the data obtained. This section provides guidance on the usage, maintenance and calibration of electronic field equipment.

- All monitoring equipment will be in proper working order and operated in accordance with manufacturer's recommendations.

- Field personnel will be responsible for ensuring that the equipment is maintained and calibrated in the field in accordance with manufacturer's recommendations.

- Instruments will be operated only by personnel trained in the proper usage and calibration.

- Personnel must be aware of the range of conditions such as temperature and humidity for instrument operation. Usage of instruments in conditions outside these ranges will only proceed with approval of the Project Manager and/or Health and Safety Officer as appropriate.

- Instruments that contain radioactive source material, such as x-ray fluorescence (XRF) analyzers or moisture-density gauges require specific transportation, handling and usage procedures that are generally associated with a license from the Nuclear Regulatory Commission (NRC) or an NRC-Agreement State. Under no circumstance will operation of such instruments be allowed on site unless by properly authorized and trained personnel, using the proper personal dosimetry badges or monitoring instruments.

7.1 GENERAL PROCEDURE DISCUSSION

Care must be taken to minimize the potential for transfer of contaminated materials to the ground or onto other materials. Regardless of the size or nature of the equipment being decontaminated, the process will utilize a series of steps that involve removal of gross material (dirt, grease, oil etc.), washing with a detergent, and multiple rinsing steps. In lieu of a series of washes and rinse steps, steam cleaning with low-volume, high-pressure equipment (i.e., steam cleaner) is acceptable.

Exploration equipment, and all monitoring equipment in contact with the sampling media must be decontaminated prior to initiating site activities, in between exploration locations to minimize cross-contamination, and prior to mobilizing off site after completion of site work.

The following specific decontamination procedure is recommended for sampling equipment and tools:

- Brush loose soil off equipment;
- Wash equipment with laboratory grade detergent (i.e., Alconox or equivalent);
- Rinse with tap water;
- Rinse equipment with distilled water;
- Allow water to evaporate before reusing equipment; and

- Wrap equipment in aluminum foil when not being used.

7.2 DECONTAMINATION OF MONITORING EQUIPMENT

Because monitoring equipment is difficult to decontaminate, care should be exercised to prevent contamination. Sensitive monitoring instruments should be protected when they are at risk of exposure to contaminants. This may include enclosing them in plastic bags allowing an opening for the sample intake. Ventilation ports should not be covered.

If contamination does occur, decontamination of the equipment will be required; however, immersion in decontamination fluids is not possible. As such, care must be taken to wipe the instruments down with detergent-wetted wipes or sponges, and then with de-ionized water-wetted wipes or sponges.

7.3 DISPOSAL OF WASH SOLUTIONS AND CONTAMINATED EQUIPMENT

All contaminated wash water, rinses, solids and materials used in the decontamination process that cannot be effectively decontaminated (such as polyethylene sheeting) will be containerized and disposed of in accordance with applicable regulations. All containers will be labeled with an indelible marker as to contents and date of placement in the container, and any appropriate stickers required (such as PCBs). Storage of decontamination wastes on site will not exceed 90 days under any circumstances.

Equipment/Materials:

Decontamination equipment and solutions are generally selected based on ease of decontamination and disposability.

- Polyethylene sheeting;
- Metal racks to hold equipment;
- Soft-bristle scrub brushes or long-handle brushes for removing gross contamination and scrubbing with wash solutions;
- Large galvanized wash tubs, stock tanks, or wading pools for wash and rinse solutions;
- Plastic buckets or garden sprayers for rinse solutions;
- Large plastic garbage cans or other similar containers lined with plastic bags can be used to store contaminated clothing;
- Contaminated liquids and solids should be segregated and containerized in DOT-approved plastic or metal drums, appropriate for offsite shipping/disposal if necessary.

8. Investigation Derived Waste Disposal

8.1 RATIONALE/ASSUMPTIONS

This procedure applies to the disposition of investigation derived waste (IDW) including soils and/or groundwater. IDW is dealt with the following "Best Management Practices" and is not considered a listed waste due to the lack of generator knowledge concerning chemical source, chemical origin, and timing of chemical introduction to the subsurface.

Consequently, waste sampling and characterization is performed to determine if the wastes exhibit a characteristic of hazardous waste. The disposal of soil cuttings, test pit soils and/or purged groundwater will be reviewed on a case by case basis prior to initiation of field activities. Two scenarios typically exist:

- When no information is available in the area of activity or investigation, and impacted media/soils are identified. Activities such as new construction and /or maintenance below grade may encounter environmental conditions that were unknown.
- Disposal Required/Containerization Required – When sufficient Site information regarding the investigative Site conditions warrant that all materials handled will be contained and disposed.

If a known listed hazardous and/or characteristically hazardous waste/contaminated environmental media is being handled, then handling must be performed in accordance with RCRA Subtitle C (reference 2, Part V, Section 1(a),(b),(c)).

The following outlines the waste characterization procedures to be employed when IDW disposal is required.

The following procedure describes the techniques for characterization of IDW for disposal purposes. IDW may consist of soil cuttings (augering, boring, well installation soils, test pit soils), rock core or rock flour (from coring, reaming operations), groundwater (from well development, purging and sampling activities), decontamination fluids, personal protective equipment (PPE), and disposal equipment (DE).

8.2 PROCEDURE

The procedures for handling and characterization of field activity generated wastes are:

A.) Soil Cuttings - Soils removed from boring activities will be contained within an approved container, suitable for transportation and disposal.

  - Once placed into the approved container, any free - liquids (i.e., groundwater) will be removed for disposal as waste fluids or solidified within the approved container using a solidification agent such as Speedy Dri (or equivalent).
  - Contained soils will be screened for the presence of Volatile Organic Compounds (VOCs), using a Photo ionization detector (PID); this data will be logged for future reference.
  - Once screened, full and closed; the container will be labeled and placed into the container storage area. At a minimum, the following information will be shown on each container

label: date of filling/generation, Site name, source of soils (i.e., borehole or well), and contact.
- Prior to container closure, representative samples from the containers will be collected for waste characterization purposes and submitted to the project laboratory.
- Typically, at a location where an undetermined site-specific parameter group exists, sampling and analysis may consist of the full RCRA Waste Characterization (ignitability, corrosivity, reactivity, toxicity), or a subset of the above based upon data collected, historical information, and generator knowledge.

B.) Groundwater - purging, and sampling groundwater, which requires disposal, will be contained.

- Containment may be performed in 55-gallon drums, tanks suitable for temporary storage (i.e., Nalgene tanks 500 to 1,000 gallons) or if large volumes of groundwater are anticipated, tanker trailer (5,000 to 10,000 gallons ±), or drilling "Frac" tanks may be utilized (20,000 gallons ±). In all cases the container/tank used for groundwater storage must be clean before use such that cross contamination does not occur.

C.) Decon Waters/Decon Fluids - Decon waters and/or fluids will be segregated, contained, and disposed accordingly.

- Decon waters may be disposed of with the containerized groundwater once analytical results have been acquired.

D.) PPE/DE – A number of disposal options exists for spent PPE/DE generated from investigation tasks. The options typically employed are:

- Immediately disposed of within on-Site dumpster/municipal trash; or
- If known to be contaminated with RCRA hazardous waste, dispose off-Site at a RCRA Subtitle C facility.
- Spent Solvent/Acid Rinses - The need for sampling must be determined in consultation with the waste management organization handling the materials. If known that only the solvent and/or acids are present, then direct disposal/treatment using media specific options may be possible without sampling (i.e., incineration).
- PPE/DE – Typically not sampled and included with the disposal of the solid wastes.

Equipment/Materials:

- Sample spoons, trier, auger,
- Sample mixing bowl,
- Sampling bailer, or pump,
- Sample glassware.

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APPENDIX A

Field Forms

EQUIPMENT CALIBRATION LOG

Project:
Location:
Model Name:
Model Number: **Serial Number:**
Cal. Standards:

Instruments will be calibrated in accordance with manufacturer’s recommendations at least once per day.

Date	Time	Calibration Satandard Solution	Calibration Result	Calibrated by

Other Comments:

Groundwater Field Sampling Form

Location:

Job Number: ____________________
Well ID: ____________________
Field Sampling Crew: ___________

Date: ________________________
Start Time: ________________________
Finished Time: ________________________

Initial Depth to Water: ____________________
Well Depth: ____________________
Depth to top of screen: ____________________
Depth to bottom of screen: ____________________
Depth of Pump Intake: ____________________

Purging Device:________________
Tubing present in well? __________
Tubing type: __________________

Time Elapsed (24 hour)	Depth to Water (from casing)	Pump Setting (ml/min or gal/min)	Purge Rate (ml/min or gal/min)	Cumulative Purge Volume (liters or gallons)	Temperature (degrees Celsius)	pH	Conductivity us/cm	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments

Comments:

SAMPLE IDENTIFICATION KEY

Page of

PROJECT __________ **H&A FILE NO.** __________

LOCATION __________ **PROJECT MGR.** __________

CLIENT __________

CONTRACTOR __________

Sample ID	Parent Sample ID	Location ID	Sample Date	Sample Time (military)	Sample Type Code	Filtered (Water Only T/D/N)	Composite Y/N	Soil Type	Depth To Top Of Sample	Depth To Bottom Of Sample	C.O.C. Number	Notes	Collected By

Notes:

Common Sample Type Codes:

N Normal Environmental Samp	WG Groundwater	WS Surface Water	SO Soil	GS Soil Gas	SE Sediment
WQ Water for Quality Control	FD Field Duplicate	EB Equipment Blank	TB Trip Blank	MS Matris Spike	MSD Matrix Spike Duplicate

see Memorandum dated 08/08/05 from Melanie Satanek "Sample Labeling for Submission to Analytical Laboratory" for less common codes

HALEY ALDRICH

DAILY FIELD REPORT

Page **of**

Project		**Report No.**	
Location		**Date**	
Client		**Page**	of
Contractor		**File No.**	
Weather		**Temperature**	

Field Representative(s)	**Time on site**	**Report/Travel/Other**	**Total hours**

Distribution:

Haley & Aldrich, Inc.

APPENDIX C

Quality Assurance Project Plan

QUALITY ASSURANCE PROJECT PLAN
65 ECKFORD STREET
BROOKLYN, NEW YORK

by
Haley & Aldrich of New York
New York, New York

for
New York State Department of Environmental Conservation
Albany, New York

File No. 0202156-002
November 2021

Executive Summary

This Quality Assurance Project Plan (QAPP) outlines the scope of the quality assurance and quality control (QA/QC) activities associated with the site monitoring activities associated with the Supplemental Investigation Work Plan (SIWP) for 65 Eckford Street (Site) in Brooklyn, New York.

Protocols for sample collection, sample handling and storage, chain-of-custody procedures, and laboratory and field analyses are described herein or specifically referenced to related project documents.

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Tables

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1. Project Description

This Quality Assurance Project Plan (QAPP) has been prepared as a component of the SIWP for the 65 Eckford Street Site in Brooklyn, New York.

1.1 PROJECT OBJECTIVES

The primary objective for data collection activities is to collect sufficient data necessary to monitor the nature of any remaining groundwater and soil impacts.

1.2 SITE DESCRIPTION AND HISTORY

The general Site description and Site history is provided in the Site Description and History Summary that accompanies the SIWP.

1.3 LABORATORY PARAMETERS

The laboratory parameters for soil include:

- Target Compound List volatile organic compounds (VOCs) using EPA method 8260B
- Target Compound List semi-volatile organic compounds (SVOCs) using EPA method 8270C
- Total Analyte List (TAL) Metals using EPA method 6010
- Polychlorinated biphenyls (PCBs) using EPA method 8082
- Pesticides using EPA 8081
- Per- and polyfluoroalkyl substances (PFAS) using Modified EPA method 537
- 1,4-Dioxane using EPA method 8260B

The laboratory parameters for groundwater include:

- Target Compound List VOCs using EPA method 8260C
- Target Compound List SVOCs using EPA method 8270C
- Total Analyte List Metals using EPA method 6010
- Per- and polyfluoroalkyl substances (PFAS) using Modified EPA method 537
- 1,4-Dioxane using EPA method 8260B

Note: 1,4-Dioxane and PFAS sampling techniques will be conducted following the NYSDEC, Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) under NYSDEC Part 375 Remedial Program released in June 2021 and Sampling for 1,4-Dioxane and Per- and Polyfluoroalkyl Substances (PFAS) Under DEC's Part 375 Remedial Programs release June 2021.

During the collection of groundwater samples, pH, specific conductivity, temperature, dissolved oxygen (DO), and oxidation/reduction potential (ORP) will be measured.

Laboratory parameters for disposal samples will be determined by the disposal facility after an approved facility has been determined.

1.4 SAMPLING LOCATIONS

The SIWP provides the locations of soil samples and groundwater monitoring wells that will be sampled.

2. Project Organization and Responsibilities

This section defines the roles and responsibilities of the individuals who will perform the SIWP monitoring activities. A NYSDOH certified analytical laboratory will perform the analyses of environmental samples collected at the Site.

2.1 MANAGEMENT RESPONSIBILITIES

The Project Manager is responsible for managing the implementation of the SIWP and monitoring and coordinating the collection of data. The Project Manager is responsible for technical quality control and project oversight. The Project Manager responsibilities include the following:

- Acquire and apply technical and corporate resources as needed to ensure performance within budget and schedule restraints;
- Review work performed to ensure quality, responsiveness, and timeliness;
- Communicate with the client point of contact concerning the progress of the monitoring activities;
- Assure corrective actions are taken for deficiencies cited during audits of SIWP monitoring activities; and
- Overall Site health and safety plan compliance.

2.2 QUALITY ASSURANCE RESPONSIBILITIES

The Quality Assurance team will consist of a Quality Assurance Officer and the Data Validation staff. Quality Assurance responsibilities are described as follows:

2.2.1 Quality Assurance (QA) Officer

The QA Officer reports directly to the Project Manager and will be responsible for overseeing the review of field and laboratory data. Additional responsibilities include the following:

- Assure the application and effectiveness of the QAPP by the analytical laboratory and the project staff;
- Provide input to the Project Manager as to corrective actions that may be required as a result of the above-mentioned evaluations;
- Prepare and/or review data validation and audit reports.

The QA Officer will be assisted by the data validation staff in the evaluation and validation of field and laboratory generated data.

2.2.2 Data Validation Staff

The data validation staff will be independent of the laboratory and familiar with the analytical procedures performed. The validation will include a review of each validation criterion as prescribed by the guidelines presented in Section 9.2 of this document and be presented in a Data Usability Summary Report (DUSR) for submittal to the QA Officer.

2.3 LABORATORY RESPONSIBILITIES

Laboratory services in support of the SIWP monitoring include the following personnel:

2.3.1 Laboratory Project Manager

The Laboratory Project Manager will report directly to the QA Officer and Project Manager and will be responsible for ensuring all resources of the laboratory are available on an as-required basis. The Laboratory Project Manager will also be responsible for the approval of the final analytical reports.

2.3.2 Laboratory Operations Manager

The Laboratory Operations Manager will report to the Laboratory Project Manager and will be responsible for coordinating laboratory analysis, supervising in-house chain-of-custody reports, scheduling sample analyses, overseeing data review and overseeing preparation of analytical reports.

2.3.3 Laboratory QA Officer

The Laboratory QA Officer will have sole responsibility for review and validation of the analytical laboratory data. The Laboratory QA Officer will provide Case Narrative descriptions of any data quality issues encountered during the analyses conducted by the laboratory. The QA Officer will also define appropriate QA procedures, overseeing QA/QC documentation.

2.3.4 Laboratory Sample Custodian

The Laboratory Sample Custodian will report to the Laboratory Operations Manager and will be responsible for the following:

- Receive and inspect the incoming sample containers;
- Record the condition of the incoming sample containers;
- Sign appropriate documents;
- Verify chain-of-custody and its correctness;
- Notify the Project Manager and Operations Manager of sample receipt and inspection;
- Assign a unique identification number and enter each into the sample receiving log;
- Initiate transfer of samples to laboratory analytical sections; and
- Control and monitor access/storage of samples and extracts.

2.3.5 Laboratory Technical Personnel

The laboratory technical staff will have the primary responsibility in the performance of sample analysis and the execution of the QA procedures developed to determine the data quality. These activities will include the proper preparation and analysis of the project samples in accordance with the laboratory’s Quality Assurance Manual (QAM) and associated Standard Operating Procedures (SOP).

2.4 FIELD RESPONSIBILITIES

2.4.1 Field Coordinator

The Field Coordinator is responsible for the overall operation of the field team and reports directly to the Project Manager. The Field Coordinator works with the project Health & Safety Officer (HSO) to conduct operations in compliance with the project Health & Safety Plan (HASP). The Field Coordinator will facilitate communication and coordinate efforts between the Project Manager and the field team members.

Other responsibilities include the following:

- Develop and implement field-related work plans, ensuring schedule compliance, and adhering to management-developed project requirements;
- Coordinate and manage field staff;
- Perform field system audits;
- Oversee quality control for technical data provided by the field staff;
- Prepare and approve text and graphics required for field team efforts;
- Coordinate and oversee technical efforts of subcontractors assisting the field team;
- Identify problems in the field; resolve difficulties in consultation with the Project QAO, and Project Manager; implement and document corrective action procedures; and,
- Participate in preparation of the final reports.

2.4.2 Field Team Personnel

Field Team Personnel will be responsible for the following:

- Perform field activities as detailed in the SIWP and in compliance with the Field Sampling Plan (FSP) and QAPP.
- Immediately report any accidents and/or unsafe conditions to the Site Health & Safety Officer and take reasonable precautions to prevent injury.

3. Sampling Procedures

The FSP provides the SOPs for sampling of soil and groundwater required by the SIWP.

3.1 SAMPLE CONTAINERS

Sample containers for each sampling task will be provided by the laboratory performing the analysis. The containers will be cleaned by the manufacturer to meet or exceed the analyte specifications established in the U.S. EPA, “Specifications and Guidance for Obtaining Contaminant-Free Sample Containers”, April 1992, OSWER Directive #9240.0-0.5A. Certificates of analysis for each lot of sample containers used will be maintained by the laboratory.

The appropriate sample containers, preservation method, maximum holding times, and handling requirements for each sampling task are provided in Table I.

3.2 SAMPLE LABELING

Each sample will be labeled with a unique sample identifier that will facilitate tracking and cross-referencing of sample information:

- Sample Identifier-Month Day Year

Equipment rinse blank and field duplicate samples also will be numbered with a unique sample identifier to prevent analytical bias of field QC samples.

Refer to the FSP for the sample labeling procedures.

3.3 FIELD QC SAMPLE COLLECTION

3.3.1 Field Duplicate Sample Collection

3.3.1.1 Water Samples

Field duplicate samples will be collected by filling the first sample container to the proper level and sealing and then repeated for the second set of sample container.

1. The samples are properly labeled as specified in Section 3.2.
2. Steps 1 through 4 are repeated for the bottles for each analysis. The samples are collected in order of decreasing analyte volatility as detailed in Section 3.3.1.
3. Chain-of-custody documents are executed.
4. The samples will be handled as specified in Table I.

3.3.1.2 Soil Samples

Soil field duplicates will be collected as specified in the following procedure:

1. Soils will be sampling directly from acetate liners.
2. Soil for VOC analysis will be removed from the sampling device as specified in the FSP.
3. Soil for non-VOC analysis will be removed from the sampling device and collected into clean laboratory provided containers.

4. Custody Procedures

Sample custody is addressed in three parts: field sample collection, laboratory analysis, and final project files. Custody of a sample begins when it is collected by or transferred to an individual and ends when that individual relinquishes or disposes of the sample.

A sample is under custody if:

1. The item is in actual possession of a person;
2. The item is in the view of the person after being in actual possession of the person;
3. The item was in actual possession and subsequently stored to prevent tampering; or
4. The item is in a designated and identified secure area.

4.1 FIELD CUSTODY PROCEDURES

Field personnel will keep written records of field activities on applicable preprinted field forms or in a bound field notebook to record data collecting activities. These records will be written legibly in ink and will contain pertinent field data and observations. Entry errors or changes will be crossed out with a single line, dated, and initialed by the person making the correction. Field forms and notebooks will be periodically reviewed by the Field Coordinator.

The beginning of each entry in the logbook or preprinted field form will contain the following information:

- Date
- Start time
- Weather
- Names of field personnel (including subcontractors)
- Level of personal protection used at the Site
- Names of all visitors and the purpose of their visit.

For each measurement and sample collected, the following information will be recorded:

- Detailed description of sample location,
- Equipment used to collect sample or make measurement and the date equipment was calibrated,
- Time sample was collected,
- Description of the sample conditions,
- Depth sample was collected (if applicable),
- Volume and number of containers filled with the sample; and,
- Sampler’s identification.

4.1.1 Field Procedures

The following procedure describes the process to maintain the integrity of the samples:

- Upon collection samples are placed in the proper containers. In general, samples collected for organic analysis will be placed in pre-cleaned glass containers and samples collected for inorganic analysis will be placed in pre-cleaned plastic (polyethylene) bottles. Refer to the FSP for sample packaging procedures.

- Samples will be assigned a unique sample number and will be affixed to a sample label. Refer to the FSP for sample labeling procedures.

- Samples will be properly and appropriately preserved by field personnel in order to minimize loss of the constituent(s) of interest due to physical, chemical, or biological mechanisms.

- Appropriate volumes will be collected to ensure that the appropriate reporting limits can be successfully achieved and that the required QC sample analyses can be performed.

4.1.2 Transfer of Custody and Shipment Procedures

- A chain-of-custody (COC) record will be completed at the time of sample collection and will accompany each shipment of project samples to the laboratory. The field personnel collecting the samples will be responsible for the custody of the samples until the samples are relinquished to the laboratory. Sample transfer will require the individuals relinquishing and receiving the samples to sign, date and note the time of sample transfer on the COC record.

- Samples will be shipped or delivered in a timely fashion to the laboratory so that holding times and/or analysis times as prescribed by the methodology can be met.

- Samples will be transported in containers (coolers) which will maintain the refrigeration temperature for those parameters for which refrigeration is required in the prescribed preservation protocols.

- Samples will be placed in an upright position and limited to one layer of samples per cooler. Additional bubble wrap or packaging material will be added to fill the cooler. Shipping containers will be secured with strapping tape and custody tape for shipment to the laboratory.

- When samples are split with the NYSDEC representatives, a separate chain-of-custody will be prepared and marked to indicate with whom the samples are shared. The person relinquishing the samples will require the representative’s signature acknowledging sample receipt.

- If samples are sent by a commercial carrier, a bill of lading will be used. A copy of the bill of lading will be retained as part of the permanent record. Commercial carriers will not sign the custody record as long as the custody record is sealed inside the sample cooler and the custody tape remains intact.

- Samples will be picked up by a laboratory courier or transported to the laboratory the same day they are collected unless collected on a weekend or holiday. In these cases, the samples will be stored in a secure location until delivery to the laboratory. Additional ice will be added to the cooler as needed to maintain proper preservation temperatures.

4.2 LABORATORY CHAIN-OF-CUSTODY PROCEDURES

A sample custodian will be designated by the laboratory and will have the responsibility to receive all incoming samples. Once received, the custodian will document if the sample is received in good condition (i.e., unbroken, cooled, etc.) and that the associated paperwork, such as chain-of-custody forms have been completed. The custodian will sign the chain-of-custody forms.

The custodian will also document if sufficient sample volume has been received to complete the analytical program. The sample custodian will then place the samples into secure, limited access storage (refrigerated storage, if required). The sample custodian will assign a unique number to each incoming sample for use in the laboratory. The unique number will then be entered into the sample-receiving log with the verified time and date of receipt also noted.

Consistent with the analyses requested on the chain-of-custody form, analyses by the laboratory's analysts will begin in accordance with the appropriate methodologies. Samples will be removed from secure storage with internal chain-of-custody sign-out procedures followed.

4.3 STORAGE OF SAMPLES

Empty sample bottles will be returned to secure and limited access storage after the available volume has been consumed by the analysis. Upon completion of the entire analytical work effort, samples will be disposed of by the sample custodian. The length of time that samples are held will be at least thirty (30) days after reports have been submitted. Disposal of remaining samples will be completed in compliance with all Federal, State and local requirements.

4.4 FINAL PROJECT FILES CUSTODY PROCEDURES

The final project files will be the central repository for all documents with information relevant to sampling and analysis activities as described in this QAPP. The Haley & Aldrich Project Manager will be the custodian of the project file. The project files including all relevant records, reports, logs, field notebooks, pictures, subcontractor reports and data reviews will be maintained in a secured, limited access area and under custody of the Project Director or his designee.

The final project file will include the following:

- Project plans and drawings
- Field data records
- Sample identification documents and soil boring/monitoring well logs
- All chain-of-custody documentation
- Correspondence
- References, literature
- Laboratory data deliverables
- Data validation and assessment reports
- Progress reports, QA reports
- Final report

The laboratory will be responsible for maintaining analytical logbooks, laboratory data and sample chain of custody documents. Raw laboratory data files and copies of hard copy reports will be inventoried and maintained by the laboratory for a period of six (6) years at which time the laboratory will contact the Haley & Aldrich Project Manager regarding the disposition of the project related files.

5. Calibration Procedures and Frequency

5.1 FIELD INSTRUMENT CALIBRATION PROCEDURES

Several field instruments will be used for both on-site screening of samples and for health and safety monitoring, as described in the Health and Safety Plan (HASP). On-site air monitoring for health and safety purposes may be accomplished using a vapor detection device, such as a Photo-ionization Detector (PID).

Field instruments will be calibrated at the beginning of each day and checked during field activities to verify performance. Instrument specific calibration procedures will be performed in accordance with the instrument manufacturer's requirements.

5.2 LABORATORY INSTRUMENT CALIBRATION PROCEDURES

Reference materials of known purity and quality will be utilized for the analysis of environmental samples. The laboratory will carefully monitor the preparation and use of reference materials including solutions, standards, and reagents through well-documented procedures.

All solid chemicals and acids/bases used by the laboratory will be rated as "reagent grade" or better. All gases will be "high" purity or better. All Standard Reference Materials (SRMs) or Performance Evaluation (PE) materials will be obtained from approved vendors of the National Institute of Standards and Technology (formerly National Bureau of Standards), the U.S. EPA Environmental Monitoring Support Laboratories (EMSL), or reliable Cooperative Research and Development Agreement (CRADA) certified commercial sources.

6. Analytical Procedures

Analytical procedures to be utilized for analysis of environmental samples will be based on referenced USEPA analytical protocols and/or project specific SOP.

6.1 FIELD ANALYTICAL PROCEDURES

Field analytical procedures include the measurement of pH, temperature, ORP, DO and specific conductivity during sampling of groundwater, and the qualitative measurement of Volatile Organic Compounds (VOC) during the collection of soil samples.

6.2 LABORATORY ANALYTICAL PROCEDURES

Laboratory analyses will be based on the U.S. EPA methodology requirements promulgated in:

- "Test Methods for Evaluating Solid Waste," SW-846 EPA, Office of Solid Waste, and promulgated updates, 1986.

6.2.1 List of Project Target Compounds and Laboratory Detection Limits

The laboratory reporting limits (RLs) and associated method detection limits (MDLs) for the target analytes and compounds for the environmental media to be analyzed are presented in Table I. MDLs have been experimentally determined by the project laboratory using the method provided in 40 CFR, Part 136 Appendix B.

Laboratory parameters for soil samples are listed in the SIWP. Laboratory parameters for disposal samples will be determined by the disposal facility after an approved facility has been determined.

6.2.2 List of Method Specific Quality Control (QC) Criteria

The laboratory SOPs include a section that presents the minimum QC requirements for the project analyses. Section 7.0 references the frequency of the associated QC samples for each sampling effort and matrix.

7. Internal Quality Control Checks

This section presents the internal quality control checks that will be employed for field and laboratory measurements.

7.1 FIELD QUALITY CONTROL

7.1.1 Field Blanks

Internal quality control checks will include analysis of field blanks to validate equipment cleanliness. Whenever possible, dedicated equipment will be employed to reduce the possibility of cross-contamination of samples.

7.1.2 Trip Blanks

Trip blanks samples will be prepared by the project laboratory using ASTM Type II or equivalent water placed within pre-cleaned 40 milliliter (ml) VOC vials equipped with Teflon septa. Trip blanks will accompany each sample delivery group (SDG) of environmental samples collected for analysis of VOCs.

Trip blank samples will be placed in each cooler that stores and transports project samples that are to be analyzed for VOCs.

7.2 LABORATORY PROCEDURES

Procedures which contribute to maintenance of overall laboratory quality assurance and control include appropriately cleaned sample containers, proper sample identification and logging, applicable sample preservation, storage, and analysis within prescribed holding times, and use of controlled materials.

7.2.1 Field Duplicate Samples

The precision or reproducibility of the data generated will be monitored through the use of field duplicate samples. Field duplicate analysis will be performed at a frequency of 1 in 20 project samples.

Precision will be measured in terms of the absolute value of the relative percent difference (RPD) as expressed by the following equation:

$$RPD = [|R1-R2|/[(R1+R2)/2]] \times 100\%$$

Acceptance criteria for duplicate analyses performed on solid matrices will be 100% and aqueous matrices will be 35%. RPD values outside these limits will require an evaluation of the sampling and/or analysis procedures by the project QA Officer and/or laboratory QA Director. Corrective actions may include re-analysis of additional sample aliquots and/or qualification of the data for use.

7.2.2 Matrix Spike Samples

Ten percent of each project sample matrix for each analytical method performed will be spiked with known concentrations of the specific target compounds/analytes.

The amount of the compound recovered from the sample compared to the amount added will be expressed as a percent recovery. The percent recovery of an analyte is an indication of the accuracy of an analysis within the site-specific sample matrix. Percent recovery will be calculated for MS/MSD using the following equation.

$$\%\ Recovery = \frac{Spiked\ Sample - Background}{Known\ Value\ of\ Spike} x\, 100\%$$

If the quality control value falls outside the control limits (UCL or LCL) due to sample matrix effects, the results will be reported with appropriate data qualifiers. To determine the effect a non-compliant MS recovery has on the reported results, the recovery data will be evaluated as part of the validation process.

7.2.3 Laboratory Control Sample (LCS) Analyses

The laboratory will perform LCS analyses prepared from Standard Reference Materials (SRMs). The SRMs will be supplied from an independent manufacturer and traceable to NIST materials with known concentrations of each target analyte to be determined by the analytical methods performed. In cases where an independently supplied SRM is not available, the LCS may be prepared by the laboratory from a reagent lot other than that used for instrument calibration.

The laboratory will evaluate LCS analyses in terms of percent recovery using the most recent laboratory generated control limits.

LCS recoveries that do not meet acceptance criteria will be deemed invalid. Analysis of project samples will cease until an acceptable LCS analysis has been performed. If sample analysis is performed in association with an out-of-control LCS sample analysis, the data will be deemed invalid.

Corrective actions will be initiated by the Haley & Aldrich QA Officer and/or Laboratory QA Officer to investigate the problem. After the problem has been identified and corrected, the solution will be noted in the instrument run logbook and re-analysis of project samples will be performed, if possible.

The analytical anomaly will be noted in the sample delivery group (SDG) Case Narrative and reviewed by the data validator. The data validator will confirm that appropriate corrective actions were implemented and recommend the applicable use of the affected data.

7.2.4 Surrogate Compound/Internal Standard Recoveries

For VOCs, surrogates will be added to each sample prior to analysis to establish purge and trap efficiency. Quantitation will be accomplished via internal standardization techniques.

The recovery of surrogate compounds and internal standards will be monitored by laboratory personnel to assess possible site-specific matrix effects on instrument performance.

For semi-volatile organics analyses, surrogates will be added to the raw sample to assess extraction efficiency. Internal standards will be added to all sample extracts and instrument calibration standard immediately before analysis for quantitation via internal standardization techniques.

Method specific quality control (QC) limits are provided in the attached laboratory method SOPs. Surrogate compound/internal standard recoveries that do not fall within accepted QC limits for the analytical methodology performed will have the analytical results flagged with data qualifiers as appropriate by the laboratory and will not be noted in the laboratory report Case Narrative.

To ascertain the effect non-compliant surrogate compound/internal standard recoveries may have on the reported results, the recovery data will be evaluated as part of the validation process. The data validator will provide recommendations for corrective actions including but not limited to additional data qualification.

7.2.5 Calibration Verification Standards

Calibration verification (CV) standards will be utilized to confirm instrument calibrations and performance throughout the analytical process. CV standards will be prepared as prescribed by the respective analytical protocols. Continuing calibration will be verified by compliance with method-specific criteria prior to additional analysis of project samples.

Non-compliant analysis of CV standards will require immediate corrective action by the project laboratory QA officer and/or designated personnel. Corrective action may include re-analysis of each affected project sample, a detailed description of the problem, the corrective action undertaken, the person who performed the action, and the resolution of the problem.

7.2.6 Laboratory Method Blank Analyses

Method blank sample analysis will be performed as part of each analytical batch for each methodology performed. If target compounds are detected in the method blank samples, the reported results will be flagged by the laboratory in accordance with standard operating procedures. The data validator will provide recommendations for corrective actions including but not limited to additional data qualification.

8. Data Quality Objectives

Sampling that will be performed as described in the SIWP is designed to produce data of the quality necessary to achieve the minimum standard requirements of the field and laboratory analytical objectives described below. These data are being obtained with the primary objective to assess levels of contaminants of concern associated with the Site.

The overall project data quality objective (DQO) is to implement procedures for field data collection, sample collection, handling, and laboratory analysis and reporting that achieve the project objectives. The following section is a general discussion of the criteria that will be used to measure achievement of the project DQO.

8.1 PRECISION

8.1.1 Definition

Precision is defined as a quantitative measure of the degree to which two or more measurements are in agreement. Precision will be determined by collecting and analyzing field duplicate samples and by creating and analyzing laboratory duplicates from one or more of the field samples. The overall precision of measurement data is a mixture of sampling and analytical factors. The analytical results from the field duplicate samples will provide data on sampling precision. The results from duplicate samples created by the laboratory will provide data on analytical precision. The measurement of precision will be stated in terms of relative percent difference (RPD).

8.1.2 Field Precision Sample Objectives

Field precision will be assessed through collection and measurement of field duplicate samples at a rate of 1 duplicate per 20 investigative samples. The RPD criteria for the project field duplicate samples will be +/- 100% for soil, +/- 35 % for groundwater for parameters of analysis detected at concentrations greater than 5 times (5X) the laboratory reporting limit (RL).

8.1.3 Laboratory Precision Sample Objectives

Laboratory precision will be assessed through the analysis of laboratory control and laboratory control duplicate samples (LCS/LCSD) and matrix spike and matrix spike duplicate (MS/MSD) samples.

8.2 ACCURACY

8.2.1 Definition

Accuracy relates to the bias in a measurement system. Bias is the difference between the observed and the "true" value. Sources of error are the sampling process, field contamination, preservation techniques, sample handling, sample matrix, sample preparation and analytical procedure limitations.

8.2.2 Field Accuracy Objectives

Sampling bias will be assessed by evaluating the results of field equipment rinse and trip blanks. Equipment rinse and trip blanks will be collected as appropriate based on sampling and analytical methods for each sampling effort.

If non-dedicated sampling equipment is used, equipment rinse blanks will be collected by passing ASTM Type II water over and/or through the respective sampling equipment utilized during each sampling effort. One equipment rinse blank will be collected for each type of non-dedicated sampling equipment used for the sampling effort. Equipment rinse blanks will be analyzed for each target parameter for the respective sampling effort for which environmental media have been collected. (Note: If dedicated or disposable sampling equipment is used, equipment rinse samples will not be collected as part of that field effort.)

Trip blank samples will be prepared by the laboratory and provided with each shipping container that includes containers for the collection of groundwater samples for the analysis of VOC. Trip blank samples will be analyzed for each VOC for which groundwater samples have been collected for analysis.

8.3 LABORATORY ACCURACY OBJECTIVES

Analytical bias will be assessed through the use of laboratory control samples (LCS) and Site-specific matrix spike (MS) sample analyses. LCS analyses will be performed with each analytical batch of project samples to determine the accuracy of the analytical system.

One (1) set of MS/MSD analyses will be performed with each batch of twenty (20) project samples collected for analysis to assess the accuracy of the identification and quantification of analytes. Additional sample volume will be collected at sample locations selected for the preparation of MS/MSD samples so that the standard laboratory reporting limits (RLs) are achieved.

The accuracy of analyses that include a sample extraction procedure will be evaluated through the use of system monitoring or surrogate compounds. Surrogate compounds will be added to each sample, standard, blank, and QC sample prior to sample preparation and analysis. Surrogate compound percent recoveries will provide information on the effect of the sample matrix on the accuracy of the analyses.

8.4 REPRESENTATIVENESS

8.4.1 Definition

Representativeness expresses the degree to which sample data represent a characteristic of a population, a parameter variation at a sampling point or an environmental condition. Representativeness is a qualitative parameter that is dependent upon the design of the sampling program. The representativeness criterion is satisfied through the proper selection of sampling locations, the quantity of samples and the use of appropriate procedures to collect and analyze the samples.

8.4.2 Measures to Ensure Representativeness of Field Data

Representativeness will be addressed by prescribing sampling techniques and the rationale used to select sampling locations. Sampling locations may be biased (based on existing data, instrument surveys, observations, etc.) or unbiased (completely random or stratified-random approaches).

8.5 COMPLETENESS

8.5.1 Definition

Completeness is a measure of the amount of valid (usable) data obtained from a measuring system compared to the total amount of the anticipated to be obtained. The completeness goal for all data uses is that a sufficient amount of valid data be generated so that determinations can be made related to the intended data use with a sufficient degree of confidence.

8.5.2 Field Completeness Objectives

Completeness is a measure of the amount of valid measurements obtained from measurements taken in this project versus the number planned.

8.5.3 Laboratory Completeness Objectives

Laboratory data completeness objective is a measure of the amount of valid data obtained from laboratory measurements. The evaluation of the data completeness will be performed at the conclusion of each sampling and analysis effort.

The completeness of the data generated will be determined by comparing the amount of valid data, based on independent validation, with the total laboratory data set.

8.6 COMPARABILITY

8.6.1 Definition

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared to another.

8.6.2 Measures to Ensure Comparability of Laboratory Data

Comparability of laboratory data will be measured from the analysis of Standard Reference Materials (SRM) obtained from either EPA Cooperative Research and Development Agreement (CRADA) suppliers or the National Institute of Standards and Technology (NIST). The reported analytical data will also be presented in standard units of mass of contaminant within a known volume of environmental media. The standard units for various sample matrices are as follows:

- Solid Matrices – mg/kg of media (Dry Weight).
- Aqueous Matrices – ng/L for PFAS analyses, ug/L of media for organic analyses, and mg/L for inorganic analyses.

8.7 LEVEL OF QUALITY CONTROL EFFORT

If non-dedicated sampling equipment is used, equipment rinse blanks will be prepared by field personnel and submitted for analysis of target parameters. Equipment rinse blank samples will be analyzed to check for potential cross-contamination between sampling locations that may be introduced during the investigation. One (1) equipment rinse blank will be collected per sampling event to the extent that non-dedicated sampling equipment is used.

If necessary, A separate equipment rinse blank sample will be collected for PFAS using the sample collection procedure described in Section 8.1.1 of the NYSDEC-approved Avangrid Field Sampling Plan. (Note: If dedicated or disposable sampling equipment is used, equipment rinse samples will not be collected as part of that field effort.)

Trip blanks will be used to assess the potential for contamination during sample storage and shipment. Trip blanks will be provided with the sample containers to be used for the collection of groundwater samples for the analysis of VOC. Trip blanks will be preserved and handled in the same manner as the project samples. One (1) trip blank will be included along with each shipping container containing project samples to be analyzed for VOC.

Method blank samples will be prepared by the laboratory and analyzed concurrently with all project samples to assess potential contamination introduced during the analytical process.

Field duplicate samples will be collected and analyzed to determine sampling and analytical reproducibility. One (1) field duplicate will be collected for every 20 or fewer investigative samples collected for off-Site laboratory analysis.

Matrix spikes will provide information to assess the precision and accuracy of the analysis of the target parameters within the environmental media collected. One (1) matrix spike/matrix spike duplicate (MS/MSD) will be collected for every 20 or fewer investigative samples.

9. Data Reduction, Validation and Reporting

Data generated by the laboratory operation will be reduced and validated prior to reporting in accordance with the following procedures:

9.1 DATA REDUCTION

9.1.1 Field Data Reduction Procedures

Field data reduction procedures will be minimal in scope compared to those implemented in the laboratory setting. The pH, conductivity, temperature, turbidity, DO, ORP and breathing zone VOC readings collected in the field will be generated from direct read instruments. The data will be written into field logbooks immediately after measurements are taken. If errors are made, data will be legibly crossed out, initialed and dated by the field member, and corrected in a space adjacent to the original entry.

9.1.2 Laboratory Data Reduction Procedures

Laboratory data reduction procedures are provided by the appropriate chapter of USEPA, “Test Methods for Evaluating Solid Waste”, SW-846, Third Edition. Errors will be noted; corrections made with the original notations crossed out legibly. Analytical results for soil samples will be calculated and reported on a dry weight basis.

9.1.3 Quality Control Data

Quality control data (e.g., laboratory duplicates, surrogates, matrix spikes, and matrix spike duplicates) will be compared to the method acceptance criteria. Data determined to be acceptable will be entered into the laboratory information management system.

Unacceptable data will be appropriately qualified in the project report. Case narratives will be prepared which will include information concerning data that fell outside acceptance limits and any other anomalous conditions encountered during sample analysis.

9.2 DATA VALIDATION

Data validation procedures of the analytical data will be performed by the Haley & Aldrich QA Officer or designee using the following documents as guidance for the review process:

- "U.S. EPA National Functional Guidelines for Organic Data Review”, and the "U.S. EPA National Functional Guidelines for Inorganic Data Review".
- The specific data qualifiers used will be applied to the reported results as presented and defined in the EPA National Functional Guidelines. Validation will be performed by qualified personnel at the direction of the Haley & Aldrich QAO.
- The completeness of each data package will be evaluated by the Data Validator. Completeness checks will be administered on all data to determine that the deliverables are consistent with

the NYSDEC Analytical Services Protocol (ASP) Category A and Category B data package requirements. The validator will determine whether the required items are present and request copies of missing deliverables (if necessary) from the laboratory.

9.3 DATA REPORTING

Data reporting procedures will be carried out for field and laboratory operations as indicated below:

- Field Data Reporting: Field data reporting will be conducted principally through the transmission of report sheets containing tabulated results of measurements made in the field and documentation of field calibration activities.

- Laboratory Data Reporting: The laboratory data reporting package will enable data validation based on the protocols described above. The final laboratory data report format will include the QA/QC sample analysis deliverables to enable the development of a data usability summary report (DUSR) based on Department DER-10 Appendix 2B.

10. Performance and System Audits

A performance audit is an independent quantitative comparison with data routinely obtained in the field or the laboratory. Performance audits include two separate, independent parts: internal and external audits.

10.1 FIELD PERFORMANCE AND SYSTEM AUDITS

10.1.1 Internal Field Audit Responsibilities

Internal audits of field activities will be initiated at the discretion of the Project Manager and will include the review of sampling and field measurements. The audits will verify that all procedures are being followed. Internal field audits will be conducted periodically during the project. The audits will include examination of the following:

- Field sampling records, screening results, instrument operating records
- Sample collection
- Handling and packaging in compliance with procedures
- Maintenance of QA procedures
- Chain-of-custody reports

10.1.2 External Field Audit Responsibilities

External audits may be conducted by the Project Coordinator at any time during the field operations. These audits may or may not be announced and are at the discretion of the NYSDEC. The external field audits can include (but are not limited to) the following:

- Sampling equipment decontamination procedures
- Sample bottle preparation procedures
- Sampling procedures
- Examination of health and safety plans
- Procedures for verification of field duplicates
- Field screening practices

10.2 LABORATORY PERFORMANCE AND SYSTEM AUDITS

10.2.1 Internal Laboratory Audit Responsibilities

The laboratory system audits are typically conducted by the laboratory QA Officer or designee on an annual basis. The system audit will include an examination of laboratory documentation including sample receiving logs, sample storage, chain-of-custody procedures, sample preparation and analysis and instrument operating records.

At the conclusion of internal system audits, reports will be provided to the laboratory's operating divisions for appropriate comment and remedial/corrective action where necessary. Records of audits and corrective actions will be maintained by the Laboratory QA Officer.

10.2.2 External Laboratory Audit Responsibilities

External audits will be conducted as required, by the NYSDOH or designee. External audits may include any of the following:

- Review of laboratory analytical procedures
- Laboratory on-site visits
- Submission of performance evaluation samples for analysis

Failure of any of the above audit procedures can lead to laboratory de-certification. An audit may consist of but not limited to:

- Sample receipt procedures
- Custody, sample security and log-in procedures
- Review of instrument calibration logs
- Review of QA procedures
- Review of log books
- Review of analytical SOPs
- Personnel interviews

A review of a data package from samples recently analyzed by the laboratory can include (but not be limited to) the following:

- Comparison of resulting data to the SOP or method
- Verification of initial and continuing calibrations within control limits
- Verification of surrogate recoveries and instrument timing results
- Review of extended quantitation reports for comparisons of library spectra to instrument spectra, where applicable
- Assurance that samples are run within holding times

11. Preventive Maintenance

11.1 FIELD INSTRUMENT PREVENTIVE MAINTENANCE

The field equipment preventive maintenance program is designed to ensure the effective completion of the sampling effort and to minimize equipment down time. Program implementation is concentrated in three areas:

- Maintenance responsibilities
- Maintenance schedules
- Inventory of critical spare parts and equipment

The maintenance responsibilities for field equipment will be assigned to the task leaders in charge of specific field operations. Field personnel will be responsible for daily field checks and calibrations and for reporting any problems with the equipment. The maintenance schedule will follow the manufacturer's recommendations. In addition, the field personnel will be responsible for determining that an inventory of spare parts will be maintained with the field equipment. The inventory will primarily contain parts that are subject to frequent failure, have limited useful lifetimes and/or cannot be obtained in a timely manner.

11.2 LABORATORY INSTRUMENT PREVENTIVE MAINTENANCE

Analytical instruments at the laboratory will undergo routine and/or preventive maintenance. The extent of the preventive maintenance will be a function of the complexity of the equipment.

Generally, annual preventive maintenance service will involve cleaning, adjusting, inspecting and testing procedures designed to deduce instrument failure and/or extend useful instrument life. Between visits, routine operator maintenance and cleaning will be performed according to manufacturer's specifications by laboratory personnel.

Maintenance records will be placed on file at the laboratory and can be made available upon request.

12. Specific Routine Procedures Used to Assess Data Precision, Accuracy, and Completeness

12.1 FIELD MEASUREMENTS

Field generated information will be reviewed by the Field Coordinator and typically include evaluation of bound logbooks/forms, data entry and calculation checks. Field data will be assessed by the Project Coordinator who will review the field results for compliance with the established QC criteria that are specified in Section 7.0 of this QAPP. The accuracy of pH and specific conductance will be assessed using daily instrument calibration, calibration check, and blank data. Accuracy will be measured by determining the percent recovery (% R) of calibration check standards. Precision of the pH and specific conductance measurements will be assessed on the basis of the reproducibility of duplicate readings of a field sample and will be measured by determining the relative percent difference (RPD). Accuracy and precision of the soil VOC screening will be determined using duplicate readings of calibration checks. Field data completeness will be calculated using the following equation:

$$\text{Completeness} = \frac{\text{Valid (usable) Data Obtained}}{\text{Total Data Planned}} \times 100$$

12.2 LABORATORY DATA

Surrogate, internal standard and matrix spike recoveries will be used to evaluate data quality. The laboratory quality assurance/quality control program will include the following elements:

- Precision, in terms of relative percent difference (RPD), will be determined by relative sample analysis at a frequency of one duplicate analysis for each batch of ten project samples or a frequency of 10 percent (10%). RPD is defined as the absolute difference of duplicate measurements divided by the mean of these analyses normalized to percentage.

- Accuracy, in terms of percent recovery (recovery of known constituent additions or surrogate recoveries), will be determined by the analysis of spiked and unspiked samples. MS/MSD will be used to determine analytical accuracy. The frequency of MS/MSD analyses will be one project sample MS/MSD per set of 20 project samples.

- One method blank will be prepared and analyzed with each batch of project samples. The total number of method blank sample analyses will be determined by the laboratory analytical batch size.

- Standard Reference Materials (SRMs) will be used for each analysis. Sources of SRM's include the U.S. EPA, commercially available material from CRADA certified vendors and/or laboratory produced solutions. SRMs, when available and appropriate, will be processed and analyzed on a frequency of one per set of samples.

- Completeness is the evaluation of the amount of valid data generated versus the total set of data produced from a particular sampling and analysis event. Valid data is determined by independent confirmation of compliance with method-specific and project-specific data quality objectives. The calculation of data set completeness will be performed by the following equation.

$$\frac{Number\ of\ Valid\ Sample\ Results}{Total\ Number\ of\ Samples\ Planned}\ X\ 100 = \%\ Complete$$

13. Quality Assurance (QA) Reports

Critically important to the successful implementation of the QA Plan is a reporting system that provides the means by which the program can be reviewed, problems identified, and programmatic changes made to improve the plan.

QA reports to management can include:

- Audit reports, internal and external audits with responses
- Performance evaluation sample results; internal and external sources
- Daily QA/QC exception reports/corrective actions

QA/QC corrective action reports will be prepared by the Haley & Aldrich QA Officer when appropriate and presented to the project and/or laboratory management personnel so that performance criteria can be monitored for all analyses from each analytical department. The updated trend/QA charts prepared by the laboratory QA personnel will be distributed and reviewed by various levels of the laboratory management.

References

1. United States Environmental Protection Agency, (1999). EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations. EPA QA/R-5 Interim Final, November 1999.

2. United States Environmental Protection Agency (1991). Preparation Aids for the Development of Category I Quality Assurance Project Plans. U.S. EPA/600/8-91/003, Risk Reduction Engineering Laboratory, Office of Research and Development, Cincinnati, Ohio, February 1991.

3. United States Environmental Protection Agency, (1993). Data Quality Objectives Process for Superfund Interim Final Guidance. U.S. EPA/540/R-93-071, Office of Solid Waste and Emergency Response (OSWER), September 1993.

4. United States Environmental Protection Agency, (1992). Specifications and Guidance for Contaminant-Free Sample Containers. OSWER Directive 9240.0-05A, April 1992.

5. United States Environmental Protection Agency. U.S. EPA National Functional Guidelines for Organic Data Review. U.S. EPA 540/R-2017-002.

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7. United States Environmental Protection Agency. Test Methods for Evaluating Solid Waste, Office of Solid Waste, U.S. EPA, SW-846, November 1986, with updates.

8. New York State Department of Environmental Conservation, NYSDEC Analytical Services Protocol (ASP), Bureau of Environmental Investigation, 1991 with updates.

9. New York State Department of Environmental Conservation, NYSDEC, Division of Environmental Remediation, Technical Guidance for Site Investigation and Remediation, DER-10, May 2010.

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TABLES

TABLE I

SUMMARY OF ANALYSIS METHOD, PRESERVATION METHOD, HOLDING TIME, SAMPLE SIZE REQUIREMENTS AND SAMPLE CONTAINERS

65 Eckford Street
Brooklyn, NY

Analysis/Method	Sample Type	Preservation	Holding Time	Volume/Weight	Container	Required Reporting Limit/Method Detection Limit
Volatile Organic Compounds/8260C	Soil	1 - 1 Vial MeOH/2 Vial Water	14 days	120 mL	3 - 40ml glass vials	See Below[2]
Semivolatile Organic Compounds/8270D	Soil	Cool, 4 ± 2 °C	14 days	8 oz	1 - 8 oz Glass	
Metals/6010D	Soil	Cool, 4 ± 2 °C	180 days	2 oz	1 - 2 oz Glass	
1,4-Dioxane/8270 SIM	Soil	Cool, 4 ± 2 °C	7 days	8 oz	1 - 8 oz Glass	
PFAS/537	Soil	H2O Cool, 4 ± 2 °C	14 days	8 oz	1 - 8 oz Glass	2 ppt
Volatile Organic Compounds/8260C	Groundwater	HCl, Cool, 4 ± 2 °C	14 days	120 mL	3 - 40ml glass vials	See Below[2]
Semivolatile Organic Compounds/8270D	Groundwater	Cool, 4 ± 2 °C	7 days	500 mL	2 - 250 mL amber glass	
TAL Metals 6020	Groundwater	HNO_3Cool, 4 ± 2 °C	180 days	500 mL	1 - 500 mL plastic bottle	
1,4-Dioxane	Groundwater	Cool, 4 ± 2 °C	7 days	120 mL	3 - 40ml glass vials	
PFAS 537	Groundwater	H2O Cool, 4 ± 2 °C	14 days	500 mL	2 - teflon free 250 ml plastic containers	2 ppt
Volatile Organic Compounds/TO-15	Soil Vapor	N/A	30 days	2.7 - 6 L	1 2.7 or 6 L Summa Canister	1 ppb

Notes:

1. Refer to text for additional information.
2. Achieve a detection limit or minimum reporting limit that is below the applicable cleanup level (DER-10 Section 2.1 Sampling and Analysis Requirements)

ppt - parts per trillion ppb - parts per billion

APPENDIX D

NYSDEC Emerging Contaminant Field Sampling Guidance

NEW YORK
STATE OF
OPPORTUNITY.

Department of
Environmental
Conservation

SAMPLING, ANALYSIS, AND ASSESSMENT OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Under NYSDEC's Part 375 Remedial Programs

June 2021

www.dec.ny.gov

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June 2021

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

ERRATA SHEET for

SAMPLING, ANALYSIS, AND ASSESSMENT OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) Under NYSDEC's Part 375 Remedial Programs Issued January 17, 2020

Citation and Page Number	Current Text	Corrected Text	Date
Title of Appendix I, page 32	Appendix H	Appendix I	2/25/2020
Document Cover, page 1	Guidelines for Sampling and Analysis of PFAS	Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs	9/15/2020
Routine Analysis, page 9	"However, laboratories analyzing environmental samples…PFOA and PFOS in drinking water by EPA Method 537, 537.1 or ISO 25101."	"However, laboratories analyzing environmental samples…PFOA and PFOS in drinking water by EPA Method 537, 537.1, ISO 25101, or Method 533."	9/15/2020
Additional Analysis, page 9, new paragraph regarding soil parameters	None	"In cases where site-specific cleanup objectives for PFOA and PFOS are to be assessed, soil parameters, such as Total Organic Carbon (EPA Method 9060), soil pH (EPA Method 9045), clay content (percent), and cation exchange capacity (EPA Method 9081), should be included in the analysis to help evaluate factors affecting the leachability of PFAS in site soils."	9/15/2020
Data Assessment and Application to Site Cleanup Page 10	Until such time as Ambient Water Quality Standards (AWQS) and Soil Cleanup Objectives (SCOs) for PFAS are published, the extent of contaminated media potentially subject to remediation should be determined on a case-by-case basis using the procedures discussed below and the criteria in DER-10. Target levels for cleanup of PFAS in other media, including biota and sediment, have not yet been established by the DEC.	Until such time as Ambient Water Quality Standards (AWQS) and Soil Cleanup Objectives (SCOs) for PFOA and PFOS are published, the extent of contaminated media potentially subject to remediation should be determined on a case-by-case basis using the procedures discussed below and the criteria in DER-10. Preliminary target levels for cleanup of PFOA and PFOS in other media, including biota and sediment, have not yet been established by the DEC.	9/15/2020

Citation and Page Number	Current Text	Corrected Text	Date
Water Sample Results Page 10	PFAS should be further assessed and considered as a potential contaminant of concern in groundwater or surface water (…) If PFAS are identified as a contaminant of concern for a site, they should be assessed as part of the remedy selection process in accordance with Part 375 and DER-10.	PFOA and PFOS should be further assessed and considered as potential contaminants of concern in groundwater or surface water (…) If PFOA and/or PFOS are identified as contaminants of concern for a site, they should be assessed as part of the remedy selection process in accordance with Part 375 and DER-10.	9/15/2020
Soil Sample Results, page 10	"The extent of soil contamination for purposes of delineation and remedy selection should be determined by having certain soil samples tested by Synthetic Precipitation Leaching Procedure (SPLP) and the leachate analyzed for PFAS. Soil exhibiting SPLP results above 70 ppt for either PFOA or PFOS (individually or combined) are to be evaluated during the cleanup phase."	"Soil cleanup objectives for PFOA and PFOS will be proposed in an upcoming revision to 6 NYCRR Part 375-6. Until SCOs are in effect, the following are to be used as guidance values. " [Interim SCO Table] "PFOA and PFOS results for soil are to be compared against the guidance values listed above. These guidance values are to be used in determining whether PFOA and PFOS are contaminants of concern for the site and for determining remedial action objectives and cleanup requirements. Site-specific remedial objectives for protection of groundwater can also be presented for evaluation by DEC. Development of site-specific remedial objectives for protection of groundwater will require analysis of additional soil parameters relating to leachability. These additional analyses can include any or all the parameters listed above (soil pH, cation exchange capacity, etc.) and/or use of SPLP. As the understanding of PFAS transport improves, DEC welcomes proposals for site-specific remedial objectives for protection of groundwater. DEC will expect that those may be dependent on additional factors including soil pH, aqueous pH, % organic carbon, % Sand/Silt/Clay, soil cations: K, Ca, Mg, Na, Fe, Al, cation exchange capacity, and anion exchange capacity. Site-specific remedial objectives should also consider the dilution attenuation factor (DAF). The NJDEP publication on DAF can be used as a reference: https://www.nj.gov/dep/srp/guidance/rs/daf.pdf. "	9/15/2020

Citation and Page Number	Current Text	Corrected Text	Date
Testing for Imported Soil Page 11	Soil imported to a site for use in a soil cap, soil cover, or as backfill is to be tested for PFAS in general conformance with DER-10, Section 5.4(e) for the PFAS Analyte List (Appendix F) using the analytical procedures discussed below and the criteria in DER-10 associated with SVOCs. If PFOA or PFOS is detected in any sample at or above 1 µg/kg, then soil should be tested by SPLP and the leachate analyzed for PFAS. If the SPLP results exceed 10 ppt for either PFOA or PFOS (individually) then the source of backfill should be rejected, unless a site-specific exemption is provided by DER. SPLP leachate criteria is based on the Maximum Contaminant Levels proposed for drinking water by New York State's Department of Health, this value may be updated based on future Federal or State promulgated regulatory standards. Remedial parties have the option of analyzing samples concurrently for both PFAS in soil and in the SPLP leachate to minimize project delays. Category B deliverables should be submitted for backfill samples, though a DUSR is not required.	Testing for PFAS should be included any time a full TAL/TCL analyte list is required. Results for PFOA and PFOS should be compared to the applicable guidance values. If PFOA or PFOS is detected in any sample at or above the guidance values then the source of backfill should be rejected, unless a site-specific exemption is provided by DER based on SPLP testing, for example. If the concentrations of PFOA and PFOS in leachate are at or above 10 ppt (the Maximum Contaminant Levels established for drinking water by the New York State Department of Health), then the soil is not acceptable. PFOA, PFOS and 1,4-dioxane are all considered semi-volatile compounds, so composite samples are appropriate for these compounds when sampling in accordance with DER-10, Table 5.4(e)10. Category B deliverables should be submitted for backfill samples, though a DUSR is not required.	9/15/2020

Citation and Page Number	Current Text	Corrected Text	Date
Footnotes	None	[1] TOP Assay analysis of highly contaminated samples, such as those from an AFFF (aqueous film-forming foam) site, can result in incomplete oxidation of the samples and an underestimation of the total perfluoroalkyl substances. [2] The movement of PFAS in the environment is being aggressively researched at this time; that research will eventually result in more accurate models for the behaviors of these chemicals. In the meantime, DEC has calculated the soil cleanup objective for the protection of groundwater using the same procedure used for all other chemicals, as described in Section 7.7 of the Technical Support Document (http://www.dec.ny.gov/docs/remediation_hudson_pdf/techsuppdoc.pdf).	9/15/2020
Additional Analysis, page 9	In cases… soil parameters, such as Total Organic Carbon (EPA Method 9060), soil…	In cases… soil parameters, such as Total Organic Carbon (Lloyd Kahn), soil…	1/8/2021
Appendix A, General Guidelines, fourth bullet	List the ELAP-approved lab(s) to be used for analysis of samples	List the ELAP- certified lab(s) to be used for analysis of samples	1/8/2021
Appendix E, Laboratory Analysis and Containers	Drinking water samples collected using this protocol are intended to be analyzed for PFAS by ISO Method 25101.	Drinking water samples collected using this protocol are intended to be analyzed for PFAS by EPA Method 537, 537.1, 533, or ISO Method 25101	1/8/2021
Water Sample Results Page 9	"In addition, further assessment of water may be warranted if either of the following screening levels are met: a. any other individual PFAS (not PFOA or PFOS) is detected in water at or above 100 ng/L; or b. total concentration of PFAS (including PFOA and PFOS) is detected in water at or above 500 ng/L"	Deleted	6/15/2021

June 2021

Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC’s Part 375 Remedial Programs

Objective

New York State Department of Environmental Conservation’s Division of Environmental Remediation (DER) performs or oversees sampling of environmental media and subsequent analysis of PFAS as part of remedial programs implemented under 6 NYCRR Part 375. To ensure consistency in sampling, analysis, reporting, and assessment of PFAS, DER has developed this document which summarizes currently accepted procedures and updates previous DER technical guidance pertaining to PFAS.

Applicability

All work plans submitted to DEC pursuant to one of the remedial programs under Part 375 shall include PFAS sampling and analysis procedures that conform to the guidelines provided herein.

As part of a site investigation or remedial action compliance program, whenever samples of potentially affected media are collected and analyzed for the standard Target Analyte List/Target Compound List (TAL/TCL), PFAS analysis should also be performed. Potentially affected media can include soil, groundwater, surface water, and sediment. Based upon the potential for biota to be affected, biota sampling and analysis for PFAS may also be warranted as determined pursuant to a Fish and Wildlife Impact Analysis. Soil vapor sampling for PFAS is not required.

Field Sampling Procedures

DER-10 specifies technical guidance applicable to DER’s remedial programs. Given the prevalence and use of PFAS, DER has developed “best management practices” specific to sampling for PFAS. As specified in DER-10 Chapter 2, quality assurance procedures are to be submitted with investigation work plans. Typically, these procedures are incorporated into a work plan, or submitted as a stand-alone document (e.g., a Quality Assurance Project Plan). Quality assurance guidelines for PFAS are listed in Appendix A - Quality Assurance Project Plan (QAPP) Guidelines for PFAS.

Field sampling for PFAS performed under DER remedial programs should follow the appropriate procedures outlined for soils, sediments or other solids (Appendix B), non-potable groundwater (Appendix C), surface water (Appendix D), public or private water supply wells (Appendix E), and fish tissue (Appendix F).

QA/QC samples (e.g. duplicates, MS/MSD) should be collected as specified in DER-10, Section 2.3(c). For sampling equipment coming in contact with aqueous samples only, rinsate or equipment blanks should be collected. Equipment blanks should be collected at a minimum frequency of one per day per site or one per twenty samples, whichever is more frequent.

Analysis and Reporting

As of October 2020, the United States Environmental Protection Agency (EPA) does not have a validated method for analysis of PFAS for media commonly analyzed under DER remedial programs (non-potable waters, solids). DER has developed the following guidelines to ensure consistency in analysis and reporting of PFAS.

The investigation work plan should describe analysis and reporting procedures, including laboratory analytical procedures for the methods discussed below. As specified in DER-10 Section 2.2, laboratories should provide a full Category B deliverable. In addition, a Data Usability Summary Report (DUSR) should be prepared by an independent, third party data validator. Electronic data submissions should meet the requirements provided at: https://www.dec.ny.gov/chemical/62440.html.

DER has developed a *PFAS Analyte List* (Appendix F) for remedial programs to understand the nature of contamination at sites. It is expected that reported results for PFAS will include, at a minimum, all the compounds listed. If lab and/or matrix specific issues are encountered for any analytes, the DER project manager, in consultation with the DER chemist, will make case-by-case decisions as to whether certain analytes may be temporarily or permanently discontinued from analysis at each site. As with other contaminants that are analyzed for at a site, the *PFAS Analyte List* may be refined for future sampling events based on investigative findings.

Routine Analysis

Currently, New York State Department of Health’s Environmental Laboratory Approval Program (ELAP) does not offer certification for PFAS in matrices other than finished drinking water. However, laboratories analyzing environmental samples for PFAS (e.g., soil, sediments, and groundwater) under DER’s Part 375 remedial programs need to hold ELAP certification for PFOA and PFOS in drinking water by EPA Method 537, 537.1, ISO 25101, or Method 533. Laboratories should adhere to the guidelines and criteria set forth in the DER’s laboratory guidelines for PFAS in non-potable water and solids (Appendix H - Laboratory Guidelines for Analysis of PFAS in Non-Potable Water and Solids). Data review guidelines were developed by DER to ensure data comparability and usability (Appendix H - Data Review Guidelines for Analysis of PFAS in Non-Potable Water and Solids).

LC-MS/MS analysis for PFAS using methodologies based on EPA Method 537.1 is the procedure to use for environmental samples. Isotope dilution techniques should be utilized for the analysis of PFAS in all media. Reporting limits for PFOA and PFOS in aqueous samples should not exceed 2 ng/L. Reporting limits for PFOA and PFOS in solid samples should not exceed 0.5 µg/kg. Reporting limits for all other PFAS in aqueous and solid media should be as close to these limits as possible. If laboratories indicate that they are not able to achieve these reporting limits for the entire *PFAS Analyte List*, site-specific decisions regarding acceptance of elevated reporting limits for specific PFAS can be made by the DER project manager in consultation with the DER chemist.

Additional Analysis

Additional laboratory methods for analysis of PFAS may be warranted at a site, such as the Synthetic Precipitation Leaching Procedure (SPLP) and Total Oxidizable Precursor Assay (TOP Assay).

In cases where site-specific cleanup objectives for PFOA and PFOS are to be assessed, soil parameters, such as Total Organic Carbon (Lloyd Kahn), soil pH (EPA Method 9045), clay content (percent), and cation exchange capacity (EPA Method 9081), should be included in the analysis to help evaluate factors affecting the leachability of PFAS in site soils.

SPLP is a technique used to determine the mobility of chemicals in liquids, soils and wastes, and may be useful in determining the need for addressing PFAS-containing material as part of the remedy. SPLP by EPA Method 1312 should be used unless otherwise specified by the DER project manager in consultation with the DER chemist.

Impacted materials can be made up of PFAS that are not analyzable by routine analytical methodology. A TOP Assay can be utilized to conceptualize the amount and type of oxidizable PFAS which could be liberated in the environment, which approximates the maximum concentration of perfluoroalkyl substances that could be generated if all polyfluoroalkyl substances were oxidized. For example, some polyfluoroalkyl substances may degrade or transform to form perfluoroalkyl substances (such as PFOA or PFOS), resulting in an increase in perfluoroalkyl substance concentrations as contaminated groundwater moves away from a source. The TOP Assay converts, through oxidation, polyfluoroalkyl substances (precursors) into perfluoroalkyl substances that can be detected by routine analytical methodology.[1]

Commercial laboratories have adopted methods which allow for the quantification of targeted PFAS in air and biota. The EPA's Office of Research and Development (ORD) is currently developing methods which allow for air emissions characterization of PFAS, including both targeted and non-targeted analysis of PFAS. Consult with the DER project manager and the DER chemist for assistance on analyzing biota/tissue and air samples.

Data Assessment and Application to Site Cleanup

Until such time as Ambient Water Quality Standards (AWQS) and Soil Cleanup Objectives (SCOs) for PFOA and PFOS are published, the extent of contaminated media potentially subject to remediation should be determined on a case-by-case basis using the procedures discussed below and the criteria in DER-10. Preliminary target levels for cleanup of PFOA and PFOS in other media, including biota and sediment, have not yet been established by the DEC.

Water Sample Results

PFOA and PFOS should be further assessed and considered as potential contaminants of concern in groundwater or surface water if PFOA or PFOS is detected in any water sample at or above 10 ng/L (ppt) and is determined to be attributable to the site, either by a comparison of upgradient and downgradient levels, or the presence of soil source areas, as defined below.

If PFOA and/or PFOS are identified as contaminants of concern for a site, they should be assessed as part of the remedy selection process in accordance with Part 375 and DER-10.

Soil Sample Results

Soil cleanup objectives for PFOA and PFOS will be proposed in an upcoming revision to 6 NYCRR Part 375-6. Until SCOs are in effect, the following are to be used as guidance values.

Guidance Values for Anticipated Site Use	PFOA (ppb)	PFOS (ppb)
Unrestricted	0.66	0.88
Residential	6.6	8.8
Restricted Residential	33	44
Commercial	500	440
Industrial	600	440
Protection of Groundwater[2]	1.1	3.7

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[1] TOP Assay analysis of highly contaminated samples, such as those from an AFFF (aqueous film-forming foam) site, can result in incomplete oxidation of the samples and an underestimation of the total perfluoroalkyl substances.

[2] The movement of PFAS in the environment is being aggressively researched at this time; that research will eventually result in more accurate models for the behaviors of these chemicals. In the meantime, DEC has calculated the guidance value for the protection of groundwater using the same procedure used for all other chemicals, as described in Section 7.7 of the Technical Support Document (http://www.dec.ny.gov/docs/remediation_hudson_pdf/techsuppdoc.pdf).

PFOA and PFOS results for soil are to be compared against the guidance values listed above. These guidance values are to be used in determining whether PFOA and PFOS are contaminants of concern for the site and for determining remedial action objectives and cleanup requirements. Site-specific remedial objectives for protection of groundwater can also be presented for evaluation by DEC. Development of site-specific remedial objectives for protection of groundwater will require analysis of additional soil parameters relating to leachability. These additional analyses can include any or all the parameters listed above (soil pH, cation exchange capacity, etc.) and/or use of SPLP.

As the understanding of PFAS transport improves, DEC welcomes proposals for site-specific remedial objectives for protection of groundwater. DEC will expect that those may be dependent on additional factors including soil pH, aqueous pH, % organic carbon, % Sand/Silt/Clay, soil cations: K, Ca, Mg, Na, Fe, Al, cation exchange capacity, and anion exchange capacity. Site-specific remedial objectives should also consider the dilution attenuation factor (DAF). The NJDEP publication on DAF can be used as a reference: https://www.nj.gov/dep/srp/guidance/rs/daf.pdf.

Testing for Imported Soil

Testing for PFAS should be included any time a full TAL/TCL analyte list is required. Results for PFOA and PFOS should be compared to the applicable guidance values. If PFOA or PFOS is detected in any sample at or above the guidance values then the source of backfill should be rejected, unless a site-specific exemption is provided by DER based on SPLP testing, for example. If the concentrations of PFOA and PFOS in leachate are at or above 10 ppt (the Maximum Contaminant Levels established for drinking water by the New York State Department of Health), then the soil is not acceptable.

PFOA, PFOS and 1,4-dioxane are all considered semi-volatile compounds, so composite samples are appropriate for these compounds when sampling in accordance with DER-10, Table 5.4(e)10. Category B deliverables should be submitted for backfill samples, though a DUSR is not required.

Appendix A - Quality Assurance Project Plan (QAPP) Guidelines for PFAS

The following guidelines (general and PFAS-specific) can be used to assist with the development of a QAPP for projects within DER involving sampling and analysis of PFAS.

General Guidelines in Accordance with DER-10

- Document/work plan section title – Quality Assurance Project Plan
- Summarize project scope, goals, and objectives
- Provide project organization including names and resumes of the project manager, Quality Assurance Officer (QAO), field staff, and Data Validator
    - The QAO should not have another position on the project, such as project or task manager, that involves project productivity or profitability as a job performance criterion
- List the ELAP certified lab(s) to be used for analysis of samples
- Include a site map showing sample locations
- Provide detailed sampling procedures for each matrix
- Include Data Quality Usability Objectives
- List equipment decontamination procedures
- Include an "Analytical Methods/Quality Assurance Summary Table" specifying:
    - Matrix type
    - Number or frequency of samples to be collected per matrix
    - Number of field and trip blanks per matrix
    - Analytical parameters to be measured per matrix
    - Analytical methods to be used per matrix with minimum reporting limits
    - Number and type of matrix spike and matrix spike duplicate samples to be collected
    - Number and type of duplicate samples to be collected
    - Sample preservation to be used per analytical method and sample matrix
    - Sample container volume and type to be used per analytical method and sample matrix
    - Sample holding time to be used per analytical method and sample matrix
- Specify Category B laboratory data deliverables and preparation of a DUSR

Specific Guidelines for PFAS

- Include in the text that sampling for PFAS will take place
- Include in the text that PFAS will be analyzed by LC-MS/MS for PFAS using methodologies based on EPA Method 537.1
- Include the list of PFAS compounds to be analyzed (*PFAS Analyte List*)
- Include the laboratory SOP for PFAS analysis
- List the minimum method-achievable Reporting Limits for PFAS
    - Reporting Limits should be less than or equal to:
        - Aqueous – 2 ng/L (ppt)
        - Solids – 0.5 µg/kg (ppb)
- Include the laboratory Method Detection Limits for the PFAS compounds to be analyzed
- Laboratory should have ELAP certification for PFOA and PFOS in drinking water by EPA Method 537, 537.1, EPA Method 533, or ISO 25101
- Include detailed sampling procedures
    - Precautions to be taken
    - Pump and equipment types
    - Decontamination procedures
    - Approved materials only to be used
- Specify that regular ice only will be used for sample shipment
- Specify that equipment blanks should be collected at a minimum frequency of 1 per day per site for each matrix

Appendix B - Sampling Protocols for PFAS in Soils, Sediments and Solids

General

The objective of this protocol is to give general guidelines for the collection of soil, sediment and other solid samples for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Containers

Samples collected using this protocol are intended to be analyzed for PFAS using methodologies based on EPA Method 537.1.

The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in to contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including sample bottle cap liners with a PTFE layer.

A list of acceptable equipment is provided below, but other equipment may be considered appropriate based on sampling conditions.

- stainless steel spoon
- stainless steel bowl
- steel hand auger or shovel without any coatings

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Sampling is often conducted in areas where a vegetative turf has been established. In these cases, a pre-cleaned trowel or shovel should be used to carefully remove the turf so that it may be replaced at the conclusion of sampling. Surface soil samples (e.g. 0 to 6 inches below surface) should then be collected using a pre-cleaned, stainless steel spoon. Shallow subsurface soil samples (e.g. 6 to ~36 inches below surface) may be collected by digging a hole using a pre-cleaned hand auger or shovel. When the desired subsurface depth is reached, a pre-cleaned hand auger or spoon shall be used to obtain the sample.

When the sample is obtained, it should be deposited into a stainless steel bowl for mixing prior to filling the sample containers. The soil should be placed directly into the bowl and mixed thoroughly by rolling the material into the middle until the material is homogenized. At this point the material within the bowl can be placed into the laboratory provided container.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- Request appropriate data deliverable (Category B) and an electronic data deliverable

Documentation

A soil log or sample log shall document the location of the sample/borehole, depth of the sample, sampling equipment, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate. Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appropriate rain gear (PVC, polyurethane, or rubber rain gear are acceptable), bug spray, and sunscreen should be used that does not contain PFAS. Well washed cotton coveralls may be used as an alternative to bug spray and/or sunscreen.

PPE that contains PFAS is acceptable when site conditions warrant additional protection for the samplers and no other materials can be used to be protective. Documentation of such use should be provided in the field notes.

Appendix C - Sampling Protocols for PFAS in Monitoring Wells

General

The objective of this protocol is to give general guidelines for the collection of groundwater samples for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Container

Samples collected using this protocol are intended to be analyzed for PFAS using methodologies based on EPA Method 537.1.

The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include: stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including plumbers tape and sample bottle cap liners with a PTFE layer.

A list of acceptable equipment is provided below, but other equipment may be considered appropriate based on sampling conditions.

- stainless steel inertia pump with HDPE tubing
- peristaltic pump equipped with HDPE tubing and silicone tubing
- stainless steel bailer with stainless steel ball
- bladder pump (identified as PFAS-free) with HDPE tubing

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Monitoring wells should be purged in accordance with the sampling procedure (standard/volume purge or low flow purge) identified in the site work plan, which will determine the appropriate time to collect the sample. If sampling using standard purge techniques, additional purging may be needed to reduce turbidity levels, so samples contain a limited amount of sediment within the sample containers. Sample containers that contain sediment may cause issues at the laboratory, which may result in elevated reporting limits and other issues during the sample preparation that can compromise data usability. Sampling personnel should don new nitrile gloves prior to sample collection due to the potential to contact PFAS containing items (not related to the sampling equipment) during the purging activities.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- Collect one equipment blank per day per site and minimum 1 equipment blank per 20 samples. The equipment blank shall test the new and decontaminated sampling equipment utilized to obtain a sample for residual PFAS contamination. This sample is obtained by using laboratory provided PFAS-free water and passing the water over or through the sampling device and into laboratory provided sample containers
- Additional equipment blank samples may be collected to assess other equipment that is utilized at the monitoring well
- Request appropriate data deliverable (Category B) and an electronic data deliverable

Documentation

A purge log shall document the location of the sample, sampling equipment, groundwater parameters, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate. Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appropriate rain gear (PVC, polyurethane, or rubber rain gear are acceptable), bug spray, and sunscreen should be used that does not contain PFAS. Well washed cotton coveralls may be used as an alternative to bug spray and/or sunscreen.

PPE that contains PFAS is acceptable when site conditions warrant additional protection for the samplers and no other materials can be used to be protective. Documentation of such use should be provided in the field notes.

Appendix D - Sampling Protocols for PFAS in Surface Water

General

The objective of this protocol is to give general guidelines for the collection of surface water samples for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Container

Samples collected using this protocol are intended to be analyzed for PFAS using methodologies based on EPA Method 537.1.

The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include: stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including sample bottle cap liners with a PTFE layer.

A list of acceptable equipment is provided below, but other equipment may be considered appropriate based on sampling conditions.

- stainless steel cup

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Where conditions permit, (e.g. creek or pond) sampling devices (e.g. stainless steel cup) should be rinsed with site medium to be sampled prior to collection of the sample. At this point the sample can be collected and poured into the sample container.

If site conditions permit, samples can be collected directly into the laboratory container.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification.   Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- Collect one equipment blank per day per site and minimum 1 equipment blank per 20 samples. The equipment blank shall test the new and decontaminated sampling equipment utilized to obtain a sample for residual PFAS contamination. This sample is obtained by using laboratory provided PFAS-free water and passing the water over or through the sampling device and into laboratory provided sample containers
- Request appropriate data deliverable (Category B) and an electronic data deliverable

Documentation

A sample log shall document the location of the sample, sampling equipment, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate. Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appropriate rain gear (PVC, polyurethane, or rubber rain gear are acceptable), bug spray, and sunscreen should be used that does not contain PFAS. Well washed cotton coveralls may be used as an alternative to bug spray and/or sunscreen.

PPE that contains PFAS is acceptable when site conditions warrant additional protection for the samplers and no other materials can be used to be protective. Documentation of such use should be provided in the field notes.

Appendix E - Sampling Protocols for PFAS in Private Water Supply Wells

General

The objective of this protocol is to give general guidelines for the collection of water samples from private water supply wells (with a functioning pump) for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Container

Drinking water samples collected using this protocol are intended to be analyzed for PFAS by EPA Method 537, 537.1, 533, or ISO Method 25101. The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation’s Division of Environmental Remediation.

No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials (e.g. plumbers tape), including sample bottle cap liners with a PTFE layer.

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Locate and assess the pressure tank and determine if any filter units are present within the building. Establish the sample location as close to the well pump as possible, which is typically the spigot at the pressure tank. Ensure sampling equipment is kept clean during sampling as access to the pressure tank spigot, which is likely located close to the ground, may be obstructed and may hinder sample collection.

Prior to sampling, a faucet downstream of the pressure tank (e.g., washroom sink) should be run until the well pump comes on and a decrease in water temperature is noted which indicates that the water is coming from the well. If the homeowner is amenable, staff should run the water longer to purge the well (15+ minutes) to provide a sample representative of the water in the formation rather than standing water in the well and piping system including the pressure tank. At this point a new pair of nitrile gloves should be donned and the sample can be collected from the sample point at the pressure tank.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- If equipment was used, collect one equipment blank per day per site and a minimum 1 equipment blank per 20 samples. The equipment blank shall test the new and decontaminated sampling equipment utilized to obtain a sample for residual PFAS contamination. This sample is obtained by using laboratory provided PFAS-free water and passing the water over or through the sampling device and into laboratory provided sample containers.
- A field reagent blank (FRB) should be collected at a rate of one per 20 samples. The lab will provide a FRB bottle containing PFAS free water and one empty FRB bottle. In the field, pour the water from the one bottle into the empty FRB bottle and label appropriately.
- Request appropriate data deliverable (Category B) and an electronic data deliverable
- For sampling events where multiple private wells (homes or sites) are to be sampled per day, it is acceptable to collect QC samples at a rate of one per 20 across multiple sites or days.

Documentation

A sample log shall document the location of the private well, sample point location, owner contact information, sampling equipment, purge duration, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate and available (e.g. well construction, pump type and location, yield, installation date). Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appendix F - Sampling Protocols for PFAS in Fish

This appendix contains a copy of the latest guidelines developed by the Division of Fish and Wildlife (DFW) entitled “General Fish Handling Procedures for Contaminant Analysis” (Ver. 8).

Procedure Name: General Fish Handling Procedures for Contaminant Analysis

Number: FW-005

Purpose: This procedure describes data collection, fish processing and delivery of fish collected for contaminant monitoring. It contains the chain of custody and collection record forms that should be used for the collections.

Organization: Environmental Monitoring Section
Bureau of Ecosystem Health
Division of Fish and Wildlife (DFW)
New York State Department of Environmental Conservation (NYSDEC)
625 Broadway
Albany, New York 12233-4756

Version: 8

Previous Version Date: 21 March 2018

Summary of Changes to this Version: Updated bureau name to Bureau of Ecosystem Health. Added direction to list the names of all field crew on the collection record. Minor formatting changes on chain of custody and collection records.

Originator or Revised by: Wayne Richter, Jesse Becker

Date: 26 April 2019

Quality Assurance Officer and Approval Date: Jesse Becker, 26 April 2019

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

GENERAL FISH HANDLING PROCEDURES FOR CONTAMINANT ANALYSES

A. Original copies of all continuity of evidence (i.e., Chain of Custody) and collection record forms must accompany delivery of fish to the lab. A copy shall be directed to the Project Leader or as appropriate, Wayne Richter. All necessary forms will be supplied by the Bureau of Ecosystem Health. Because some samples may be used in legal cases, it is critical that each section is filled out completely. Each Chain of Custody form has three main sections:

1. The top box is to be filled out **and signed** by the person responsible for the fish collection (e.g., crew leader, field biologist, researcher). This person is responsible for delivery of the samples to DEC facilities or personnel (e.g., regional office or biologist).

2. The second section is to be filled out **and signed** by the person responsible for the collections while being stored at DEC, before delivery to the analytical lab. This may be the same person as in (1), but it is still required that they complete the section. Also important is the **range of identification numbers** (i.e., tag numbers) included in the sample batch.

3. Finally, the bottom box is to record any transfers between DEC personnel and facilities. Each subsequent transfer should be **identified, signed, and dated**, until laboratory personnel take possession of the fish.

B. The following data are required on each **Fish Collection Record** form:

1. Project and Site Name.

2. DEC Region.

3. All personnel (and affiliation) involved in the collection.

4. Method of collection (gill net, hook and line, etc.)

5. Preservation Method.

C. The following data are to be taken on each fish collected and recorded on the **Fish Collection Record** form:

1. Tag number - Each specimen is to be individually jaw tagged at time of collection with a unique number. Make sure the tag is turned out so that the number can be read without opening the bag. Use tags in sequential order. For small fish or composite samples place the tag inside the bag with the samples. The Bureau of Ecosystem Health can supply the tags.

2. Species identification (please be explicit enough to enable assigning genus and species). Group fish by species when processing.

3. Date collected.

4. Sample location (waterway and nearest prominent identifiable landmark).

5. Total length (nearest mm or smallest sub-unit on measuring instrument) and weight (nearest g or

smallest sub-unit of weight on weighing instrument). Take all measures as soon as possible with calibrated, protected instruments (e.g. from wind and upsets) and prior to freezing.

6. Sex - fish may be cut enough to allow sexing or other internal investigation, but do not eviscerate. Make any incision on the right side of the belly flap or exactly down the midline so that a left-side fillet can be removed.

D. General data collection recommendations:

1. It is helpful to use an ID or tag number that will be unique. It is best to use metal striped bass or other uniquely numbered metal tags. If uniquely numbered tags are unavailable, values based on the region, water body and year are likely to be unique: for example, R7CAY11001 for Region 7, Cayuga Lake, 2011, fish 1. If the fish are just numbered 1 through 20, we have to give them new numbers for our database, making it more difficult to trace your fish to their analytical results and creating an additional possibility for errors.

2. Process and record fish of the same species sequentially. Recording mistakes are less likely when all fish from a species are processed together. Starting with the bigger fish species helps avoid missing an individual.

3. If using Bureau of Ecosystem Health supplied tags or other numbered tags, use tags in sequence so that fish are recorded with sequential Tag Numbers. This makes data entry and login at the lab and use of the data in the future easier and reduces keypunch errors.

4. Record length and weight as soon as possible after collection and before freezing. Other data are recorded in the field upon collection. An age determination of each fish is optional, but if done, it is recorded in the appropriate “Age” column.

5. For composite samples of small fish, record the number of fish in the composite in the Remarks column. Record the length and weight of each individual in a composite. All fish in a composite sample should be of the same species and members of a composite should be visually matched for size.

6. Please submit photocopies of topographic maps or good quality navigation charts indicating sampling locations. GPS coordinates can be entered in the Location column of the collection record form in addition to or instead for providing a map. These records are of immense help to us (and hopefully you) in providing documented location records which are not dependent on memory and/or the same collection crew. In addition, they may be helpful for contaminant source trackdown and remediation/control efforts of the Department.

7. When recording data on fish measurements, it will help to ensure correct data recording for the data recorder to call back the numbers to the person making the measurements.

E. Each fish is to be placed in its own individual plastic bag. For small fish to be analyzed as a composite, put all of the fish for one composite in the same bag but use a separate bag for each composite. It is important to individually bag the fish to avoid difficulties or cross contamination when processing the fish for chemical analysis. Be sure to include the fish’s tag number inside the bag, preferably attached to the fish with the tag number turned out so it can be read. Tie or otherwise secure the bag closed. **<u>The Bureau of Ecosystem Health will supply the bags.</u>** If necessary, food grade bags may be procured from a suitable vendor (e.g., grocery store). It is preferable to redundantly label each bag with a manila tag tied between the knot and the body of the bag. This tag should be labeled with the project name, collection location, tag number, collection date, and fish species. If scales are collected, the scale envelope should be labeled with the same information.

F. Groups of fish, by species, are to be placed in one large plastic bag per sampling location. **The Bureau of Ecosystem Health will supply the larger bags.** Tie or otherwise secure the bag closed. Label the site bag with a manila tag tied between the knot and the body of the bag. The tag should contain: project, collection location, collection date, species and **tag number ranges**. Having this information on the manila tag enables lab staff to know what is in the bag without opening it.

G. Do not eviscerate, fillet or otherwise dissect the fish unless specifically asked to. If evisceration or dissection is specified, the fish must be cut along the exact midline or on the right side so that the left side fillet can be removed intact at the laboratory. If filleting is specified, the procedure for taking a standard fillet (SOP PREPLAB 4) must be followed, including removing scales.

H. Special procedures for PFAS: Unlike legacy contaminants such as PCBs, which are rarely found in day to day life, PFAS are widely used and frequently encountered. Practices that avoid sample contamination are therefore necessary. While no standard practices have been established for fish, procedures for water quality sampling can provide guidance. The following practices should be used for collections when fish are to be analyzed for PFAS:

    No materials containing Teflon.
    No Post-it notes.
    No ice packs; only water ice or dry ice.
    Any gloves worn must be powder free nitrile.
    No Gore-Tex or similar materials (Gore-Tex is a PFC with PFOA used in its manufacture).
    No stain repellent or waterproof treated clothing; these are likely to contain PFCs.
    Avoid plastic materials, other than HDPE, including clipboards and waterproof notebooks.
    Wash hands after handling any food containers or packages as these may contain PFCs. Keep pre-wrapped food containers and wrappers isolated from fish handling.
    Wear clothing washed at least six times since purchase.
    Wear clothing washed without fabric softener.
    Staff should avoid cosmetics, moisturizers, hand creams and similar products on the day of sampling as many of these products contain PFCs (Fujii et al. 2013). Sunscreen or insect repellent should not contain ingredients with “fluor” in their name. Apply any sunscreen or insect repellent well downwind from all materials. Hands must be washed after touching any of these products.

I. All fish must be kept at a temperature <45° F (<8° C) immediately following data processing. As soon as possible, freeze at -20° C ± 5° C. Due to occasional freezer failures, daily freezer temperature logs are required. The freezer should be locked or otherwise secured to maintain chain of custody.

J. In most cases, samples should be delivered to the Analytical Services Unit at the Hale Creek field station. Coordinate delivery with field station staff and send copies of the collection records, continuity of evidence forms and freezer temperature logs to the field station. For samples to be analyzed elsewhere, non-routine collections or other questions, contact Wayne Richter, Bureau of Ecosystem Health, NYSDEC, 625 Broadway, Albany, New York 12233-4756, 518-402-8974, or the project leader about sample transfer. Samples will then be directed to the analytical facility and personnel noted on specific project descriptions.

K. A recommended equipment list is at the end of this document.

page ______ of ______

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF FISH AND WILDLIFE
FISH COLLECTION RECORD

Project and Site Name ____ DEC Region ____________

Collections made by (include all crew) ____

Sampling Method: ☐Electrofishing ☐Gill netting ☐Trap netting ☐Trawling ☐Seining ☐Angling ☐Other ____________________

Preservation Method: ☐Freezing ☐Other ________________ Notes (SWFDB survey number): ____________________

FOR LAB USE ONLY- LAB ENTRY NO.	COLLECTION OR TAG NO.	SPECIES	DATE TAKEN	LOCATION	AGE	SEX &/OR REPROD. CONDIT	LENGTH ( )	WEIGHT ( )	REMARKS

richter: revised 2011, 5/7/15, 10/4/16, 3/20/17; becker: 3/23/17, 4/26/19

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CHAIN OF CUSTODY

I, ______________________________, of ______________________________ collected the
(Print Name) (Print Business Address)

following on ____________________, 20____ from ______________________________
(Date) (Water Body)

in the vicinity of ______________________________
(Landmark, Village, Road, etc.)

Town of ______________________________, in ______________________________ County.

Item(s) ______________________________

____

Said sample(s) were in my possession and handled according to standard procedures provided to me prior to collection. The sample(s) were placed in the custody of a representative of the New York State Department of Environmental Conservation on ______________________________, 20______.

______________________________ ______________________________
Signature Date

I, ______________________________, received the above mentioned sample(s) on the date specified and assigned identification number(s) ______________________________ to the sample(s). I have recorded pertinent data for the sample(s) on the attached collection records. The sample(s) remained in my custody until subsequently transferred, prepared or shipped at times and on dates as attested to below.

______________________________ ____________________
Signature Date

SECOND RECIPIENT (Print Name)	TIME & DATE	PURPOSE OF TRANSFER
SIGNATURE	UNIT	
THIRD RECIPIENT (Print Name)	TIME & DATE	PURPOSE OF TRANSFER
SIGNATURE	UNIT	
FOURTH RECIPIENT (Print Name)	TIME & DATE	PURPOSE OF TRANSFER
SIGNATURE	UNIT	
RECEIVED IN LABORATORY BY (Print Name)	TIME & DATE	REMARKS
SIGNATURE	UNIT	
LOGGED IN BY (Print Name)	TIME & DATE	ACCESSION NUMBERS
SIGNATURE	UNIT	

richter: revised 21 April 2014; becker: 23 March 2017, 26 April, 2019

NOTICE OF WARRANTY

By signature to the chain of custody (reverse), the signatory warrants that the information provided is truthful and accurate to the best of his/her ability. The signatory affirms that he/she is willing to testify to those facts provided and the circumstances surrounding the same. Nothing in this warranty or chain of custody negates responsibility nor liability of the signatories for the truthfulness and accuracy of the statements provided.

HANDLING INSTRUCTIONS

On day of collection, collector(s) name(s), address(es), date, geographic location of capture (attach a copy of topographic map or navigation chart), species, number kept of each species, and description of capture vicinity (proper noun, if possible) along with name of Town and County must be indicated on reverse.

Retain organisms in manila tagged plastic bags to avoid mixing capture locations. Note appropriate information on each bag tag.

Keep samples as cool as possible. Put on ice if fish cannot be frozen within 12 hours. If fish are held more than 24 hours without freezing, they will not be retained or analyzed.

Initial recipient (either DEC or designated agent) of samples from collector(s) is responsible for obtaining and recording information on the collection record forms which will accompany the chain of custody. This person will seal the container using packing tape and writing his signature, the time and the date across the tape onto the container with indelible marker. Any time a seal is broken, for whatever purpose, the incident must be recorded on the Chain of Custody (reason, time, and date) in the purpose of transfer block. Container then is resealed using new tape and rewriting signature, with time and date.

EQUIPMENT LIST

Scale or balance of appropriate capacity for the fish to be collected.

Fish measuring board.

Plastic bags of an appropriate size for the fish to be collected and for site bags.

Individually numbered metal tags for fish.

Manila tags to label bags.

Small envelops, approximately 2” x 3.5”, if fish scales are to be collected.

Knife for removing scales.

Chain of custody and fish collection forms.

Clipboard.

Pens or markers.

Paper towels.

Dish soap and brush.

Bucket.

Cooler.

Ice.

Duct tape.

Appendix G – PFAS Analyte List

Group	Chemical Name	Abbreviation	CAS Number
Perfluoroalkyl sulfonates	Perfluorobutanesulfonic acid	PFBS	375-73-5
	Perfluorohexanesulfonic acid	PFHxS	355-46-4
	Perfluoroheptanesulfonic acid	PFHpS	375-92-8
	Perfluorooctanesulfonic acid	PFOS	1763-23-1
	Perfluorodecanesulfonic acid	PFDS	335-77-3
Perfluoroalkyl carboxylates	Perfluorobutanoic acid	PFBA	375-22-4
	Perfluoropentanoic acid	PFPeA	2706-90-3
	Perfluorohexanoic acid	PFHxA	307-24-4
	Perfluoroheptanoic acid	PFHpA	375-85-9
	Perfluorooctanoic acid	PFOA	335-67-1
	Perfluorononanoic acid	PFNA	375-95-1
	Perfluorodecanoic acid	PFDA	335-76-2
	Perfluoroundecanoic acid	PFUA/PFUdA	2058-94-8
	Perfluorododecanoic acid	PFDoA	307-55-1
	Perfluorotridecanoic acid	PFTriA/PFTrDA	72629-94-8
	Perfluorotetradecanoic acid	PFTA/PFTeDA	376-06-7
Fluorinated Telomer Sulfonates	6:2 Fluorotelomer sulfonate	6:2 FTS	27619-97-2
	8:2 Fluorotelomer sulfonate	8:2 FTS	39108-34-4
Perfluorooctane-sulfonamides	Perfluroroctanesulfonamide	FOSA	754-91-6
Perfluorooctane-sulfonamidoacetic acids	N-methyl perfluorooctanesulfonamidoacetic acid	N-MeFOSAA	2355-31-9
	N-ethyl perfluorooctanesulfonamidoacetic acid	N-EtFOSAA	2991-50-6

Appendix H - Laboratory Guidelines for Analysis of PFAS in Non-Potable Water and Solids

General

New York State Department of Environmental Conservation's Division of Environmental Remediation (DER) developed the following guidelines for laboratories analyzing environmental samples for PFAS under DER programs. If laboratories cannot adhere to the following guidelines, they should contact DER's Quality Assurance Officer, Dana Barbarossa, at dana.barbarossa@dec.ny.gov prior to analysis of samples.

Isotope Dilution

Isotope dilution techniques should be utilized for the analysis of PFAS in all media.

Extraction

For water samples, the entire sample bottle should be extracted, and the sample bottle rinsed with appropriate solvent to remove any residual PFAS.

For samples with high particulates, the samples should be handled in one of the following ways:

1. Spike the entire sample bottle with isotope dilution analytes (IDAs) prior to any sample manipulation. The sample can be passed through the SPE and if it clogs, record the volume that passed through.
2. If the sample contains too much sediment to attempt passing it through the SPE cartridge, the sample should be spiked with isotope dilution analytes, centrifuged and decanted.
3. If higher reporting limits are acceptable for the project, the sample can be diluted by taking a representative aliquot of the sample. If isotope dilution analytes will be diluted out of the sample, they can be added after the dilution. The sample should be homogenized prior to taking an aliquot.

If alternate sample extraction procedures are used, please contact the DER remedial program chemist prior to employing. Any deviations in sample preparation procedures should be clearly noted in the case narrative.

Signal to Noise Ratio

For all target analyte ions used for quantification, signal to noise ratio should be 3:1 or greater.

Blanks

There should be no detections in the method blanks above the reporting limits.

Ion Transitions

The ion transitions listed below should be used for the following PFAS:

PFOA	413 > 369
PFOS	499 > 80
PFHxS	399 > 80
PFBS	299 > 80
6:2 FTS	427 > 407
8:2 FTS	527 > 507
N-EtFOSAA	584 > 419
N-MeFOSAA	570 > 419

Branched and Linear Isomers

Standards containing both branched and linear isomers should be used when standards are commercially available. Currently, quantitative standards are available for PFHxS, PFOS, NMeFOSAA, and NEtFOSAA. As more standards become available, they should be incorporated in to the method. All isomer peaks present in the standard should be integrated and the areas summed. Samples should be integrated in the same manner as the standards.

Since a quantitative standard does not exist for branched isomers of PFOA, the instrument should be calibrated using just the linear isomer and a technical (qualitative) PFOA standard should be used to identify the retention time of the branched PFOA isomers in the sample. The total response of PFOA branched and linear isomers should be integrated in the samples and quantitated using the calibration curve of the linear standard.

Secondary Ion Transition Monitoring

Quantifier and qualifier ions should be monitored for all target analytes (PFBA and PFPeA are exceptions). The ratio of quantifier ion response to qualifier ion response should be calculated for each target analyte and the ratio compared to standards. Lab derived criteria should be used to determine if the ratios are acceptable.

Reporting

Detections below the reporting limit should be reported and qualified with a J qualifier.

The acid form of PFAS analytes should be reported. If the salt form of the PFAS was used as a stock standard, the measured mass should be corrected to report the acid form of the analyte.

Appendix I - Data Review Guidelines for Analysis of PFAS in Non-Potable Water and Solids

General

These guidelines are intended to be used for the validation of PFAS analytical results for projects within the Division of Environmental Remediation (DER) as well as aid in the preparation of a data usability summary report. Data reviewers should understand the methodology and techniques utilized in the analysis. Consultation with the end user of the data may be necessary to assist in determining data usability based on the data quality objectives in the Quality Assurance Project Plan. A familiarity with the laboratory's Standard Operating Procedure may also be needed to fully evaluate the data. If you have any questions, please contact DER's Quality Assurance Officer, Dana Barbarossa, at dana.barbarossa@dec.ny.gov.

Preservation and Holding Time

Samples should be preserved with ice to a temperature of less than 6°C upon arrival at the lab. The holding time is 14 days to extraction for aqueous and solid samples. The time from extraction to analysis for aqueous samples is 28 days and 40 days for solids.

Temperature greatly exceeds 6ºC upon arrival at the lab*	Use professional judgement to qualify detects and non-detects as estimated or rejected
Holding time exceeding 28 days to extraction	Use professional judgement to qualify detects and non-detects as estimated or rejected if holding time is grossly exceeded

*Samples that are delivered to the lab immediately after sampling may not meet the thermal preservation guidelines. Samples are considered acceptable if they arrive on ice or an attempt to chill the samples is observed.

Initial Calibration

The initial calibration should contain a minimum of five standards for linear fit and six standards for a quadratic fit. The relative standard deviation (RSD) for a quadratic fit calibration should be less than 20%. Linear fit calibration curves should have an R^2 value greater than 0.990.

The low-level calibration standard should be within 50% - 150% of the true value, and the mid-level calibration standard within 70% - 130% of the true value.

%RSD >20%	J flag detects and UJ non detects
R^2 >0.990	J flag detects and UJ non detects
Low-level calibration check <50% or >150%	J flag detects and UJ non detects
Mid-level calibration check <70% or >130%	J flag detects and UJ non detects

Initial Calibration Verification

An initial calibration verification (ICV) standard should be from a second source (if available). The ICV should be at the same concentration as the mid-level standard of the calibration curve.

ICV recovery <70% or >130%	J flag detects and non-detects

Continuing Calibration Verification

Continuing calibration verification (CCV) checks should be analyzed at a frequency of one per ten field samples. If CCV recovery is very low, where detection of the analyte could be in question, ensure a low level CCV was analyzed and use to determine data quality.

CCV recovery <70 or >130%	J flag results

Blanks

There should be no detections in the method blanks above the reporting limits. Equipment blanks, field blanks, rinse blanks etc. should be evaluated in the same manner as method blanks. Use the most contaminated blank to evaluate the sample results.

Blank Result	Sample Result	Qualification
Any detection	<Reporting limit	Qualify as ND at reporting limit
Any detection	>Reporting Limit and >10x the blank result	No qualification
>Reporting limit	>Reporting limit and <10x blank result	J+ biased high

Field Duplicates

A blind field duplicate should be collected at rate of one per twenty samples. The relative percent difference (RPD) should be less than 30% for analyte concentrations greater than two times the reporting limit. Use the higher result for final reporting.

RPD >30%	Apply J qualifier to parent sample

Lab Control Spike

Lab control spikes should be analyzed with each extraction batch or one for every twenty samples. In the absence of lab derived criteria, use 70% - 130% recovery criteria to evaluate the data.

Recovery <70% or >130% (lab derived criteria can also be used)	Apply J qualifier to detects and UJ qualifier to non detects

Matrix Spike/Matrix Spike Duplicate

One matrix spike and matrix spike duplicate should be collected at a rate of one per twenty samples. Use professional judgement to reject results based on out of control MS/MSD recoveries.

Recovery <70% or >130% (lab derived criteria can also be used)	Apply J qualifier to detects and UJ qualifier to non detects of parent sample only
RPD >30%	Apply J qualifier to detects and UJ qualifier to non detects of parent sample only

Extracted Internal Standards (Isotope Dilution Analytes)

Problematic analytes (e.g. PFBA, PFPeA, fluorotelomer sulfonates) can have wider recoveries without qualification. Qualify corresponding native compounds with a J flag if outside of the range.

Recovery <50% or >150%	Apply J qualifier
Recovery <25% or >150% for poor responding analytes	Apply J qualifier
Isotope Dilution Analyte (IDA) Recovery <10%	Reject results

Secondary Ion Transition Monitoring

Quantifier and qualifier ions should be monitored for all target analytes (PFBA and PFPeA are exceptions). The ratio of quantifier ion response to qualifier ion response should be calculated from the standards for each target analyte. Lab derived criteria should be used to determine if the ratios are acceptable. If the ratios fall outside of the laboratory criteria, qualify results as an estimated maximum concentration.

Signal to Noise Ratio

The signal to noise ratio for the quantifier ion should be at least 3:1. If the ratio is less than 3:1, the peak is discernable from the baseline noise and symmetrical, the result can be reported. If the peak appears to be baseline noise and/or the shape is irregular, qualify the result as tentatively identified.

Branched and Linear Isomers

Observed branched isomers in the sample that do not have a qualitative or quantitative standard should be noted and the analyte should be qualified as biased low in the final data review summary report. Note: The branched isomer peak should also be present in the secondary ion transition.

Reporting Limits

If project-specific reporting limits were not met, please indicate that in the report along with the reason (e.g. over dilution, dilution for non-target analytes, high sediment in aqueous samples).

Peak Integrations

Target analyte peaks should be integrated properly and consistently when compared to standards. Ensure branched isomer peaks are included for PFAS where standards are available. Inconsistencies should be brought to the attention of the laboratory or identified in the data review summary report.

APPENDIX E

Health and Safety Plan

HALEY & ALDRICH, INC.
SITE-SPECIFIC SAFETY PLAN

FOR

Former Carter Spray Finishing Corp.

65 Eckford Street, Brooklyn, NY

Project/File No. **0202156**

Gensuite EZ Scan®

BI - Developers

Prepared By: Yanxia Lin	**Date: 8/17/2021**
Project Manager: Mari Cate Conlon	**Date: 8/26/2021**
HASP Valid Through: 3-10-2023	

Table of Contents

Attachments

STOP WORK AUTHORITY

In accordance with Haley & Aldrich (Haley & Aldrich) Stop Work Authority Operating Procedure (OP1035), any individual has the right to refuse to perform work that he or she believes to be unsafe without fear of retaliation. He or she also has the authority, obligation, and responsibility to stop others from working in an unsafe manner.

STOP Work Authority is the stop work policy for all personnel and subcontractors on the Site. When work has been stopped due to an unsafe condition, Haley & Aldrich site management (e.g., Project Manager [PM], Site Health & Safety Officer [SHSO], etc.) and the Haley & Aldrich Senior Project Manager (SPM) will be notified immediately.

Reasons for issuing a stop work order include, but are not limited to:

- The belief/perception that injury to personnel or accident causing significant damage to property or equipment is imminent.
- An Haley & Aldrich subcontractor is in breach of site safety requirements and/or their own site HASP.
- Identifying a substandard condition (e.g., severe weather) or activity that creates an unacceptable safety risk as determined by a qualified person.

Work will not resume until the unsafe act has been stopped OR sufficient safety precautions have been taken to remove or mitigate the risk to an acceptable degree. Stop work orders will be documented as part of an on-site stop work log, on daily field reports to include the activity/activities stopped, the duration, person stopping work, person in-charge of stopped activity/activities, and the corrective action agreed to and/or taken. Once work has been stopped, only the Haley & Aldrich SPM or SHSO can give the order to resume work. Haley & Aldrich senior management is committed to support anyone who exercises his or her “Stop Work” authority.

ISSUANCE AND COMPLIANCE

This HASP has been prepared in accordance with Occupational Safety and Health Administration (OSHA) regulations (CFR 29, Parts 1904, 1910, and 1926) if such are applicable.

The specific requirements of this HASP include precautions for hazards that exist during this project and may be revised as new information is received or as site conditions change.

- This HASP must be signed by all Haley & Aldrich personnel involved in implementation of the SOW (Section 2 of this HASP).
- This HASP, or a current signed copy, must be retained at all times when Haley & Aldrich staff are present.
- Revisions to this HASP must be outlined within the contents of the HASP. If immediate or minor changes are necessary, the Field Safety Manager (FSM), Haley & Aldrich, SSO and/or Project Manager (PM) may use Attachment 1 (HASP Amendment Form), presented at the end of this HASP. Any revision to the HASP requires employees and subcontractors to be informed of the changes so that they understand the requirements of the change.
- Deviations from this HASP are permitted with approval from the Haley & Aldrich FSM, PM, or Senior Health & Safety Manager (SHSM). Unauthorized deviations may constitute a violation of Haley & Aldrich company procedures/policies and may result in disciplinary action.
- This HASP will be relied upon by Haley & Aldrich's subcontractors and visitors to the site. Haley & Aldrich's subcontractors must have their own HASP which will address hazards specific to their trade that is not included in this HASP. This HASP will be made available for review to Haley & Aldrich's subcontractors and other interested parties (e.g. Facility personnel and regulatory agencies) to ensure that Haley & Aldrich has properly informed our subcontractors and others of the potential hazards associated with the implementation of the SOW to the extent that Haley &Aldrich is aware.

This site-specific HASP provides only site-specific descriptions and work procedures. General safety and health compliance programs in support of this HASP (e.g., injury reporting, medical surveillance, personal protective equipment (PPE) selection, etc.) are described in detail in the Haley &Aldrich Corporate Health and Safety Program Manual and within Haley & Aldrich's Standard Operating Procedures Both the manual and SOPs can be located on the Haley & Aldrich's Company Intranet. When appropriate, users of this HASP should always refer to these resources and incorporate to the extent possible. The manual and SOPs are available to clients and regulators upon request.

EMERGENCY EVENT PROCEDURES

1 - ASSESS THE SCENE

- STOP WORK
- Review the situation and ascertain if it's safe to enter the area.
- Evacuate the site if the conditions are unsafe.

2 - EVALUATE THE EMERGENCY

- **Call 911, or designated emergency number, if required.**
- **Provide first aid for the victim if qualified and safe to do so.**
  - First aid will be addressed using the onsite first aid kit. *
    - If providing first aid, remember to use proper first aid universal precautions if blood or bodily fluids are present.
- **If exposure to hazardous substance is suspected, immediately vacate the contaminated area.**
  - Remove any contaminated clothing and/or equipment.
  - Wash any affected dermal/ocular area(s) with water for at least 15 minutes.
  - Seek immediate medical assistance if any exposure symptoms are present.

** Note: Haley & Aldrich employees are not required or expected to administer first aid / CPR to any Haley & Aldrich staff member, Contractor, or Civilian personnel at any time; it is Haley & Aldrich´s position that those who do are doing so on their own behalf and not as a function of their job.*

3 - SECURE THE AREA

- **Cordon off the incident area, if possible.**
  - Notify any security personnel, if required.
  - Escort all non-essential personnel out of the area, if able.

4 - REPORT ON-SITE ACCIDENTS / INCIDENTS TO PM / SSO

- **Notify the PM and SSO as soon as it is safe to do so.**
  - Assist PM and SSO in completing any additional tasks, as required.

5 - INVESTIGATE / REPORT THE INCIDENT

- **Record details of the incident for input to the Gensuite.**
  - Complete any additional forms as requested by the PM and SSO.

6 - TAKE CORRECTIVE ACTION

- **Implement corrective actions per the PM following root cause analysis.**
  - Complete Lessons Learned form.

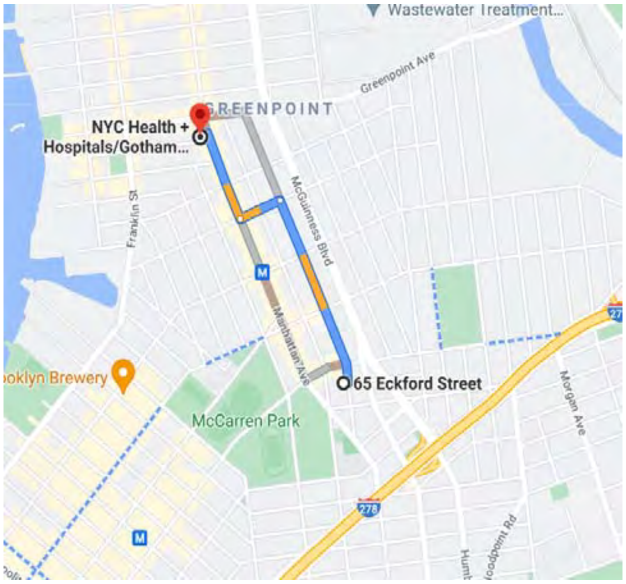
PROJECT INFORMATION AND CONTACTS

Project Name: Former Carter Spray Finishing Corp.	**Haley & Aldrich File No.:** 0202156
Location: 65 Eckford Street, Brooklyn, NY	
Client/Site Contact: Phone Number:	Z65 Realty LLC Enter Phone Number
Haley & Aldrich Field Representative: Phone Number: Emergency Phone Number:	Zachary Simmel 646.277.5690 646.787.7669
Haley & Aldrich Project Manager: Phone Number: Emergency Phone Number:	Mari Cate Conlon 646.277.5688 347.271.1521
Field Safety Manager: Phone Number: Emergency Phone Number:	Mari Cate Conlon 646.277.5688 347.271.1521
Subcontractor Project Manager: Phone Number:	Marc Morgenstern 631.319.6536
Nearest Hospital: Address: (see map on next page) Phone Number:	NYC Health + Hospitals/Gotham Health, Greenpoint 875 Manhattan Avenue Brooklyn, NY 11222 844.692.4692
Nearest Occ. Health Clinic: **http://www.talispoint.com/liberty/ext/** Address: (see map on next page) Phone Number:	Northside Medical Care 66 Nassau Ave, Brooklyn, NY 11222 718.383.4600
Liberty Mutual Claim Policy	**WC6Z11254100030**
Emergency Response Number:	**911**
Other Local Emergency Response Number:	N/A
Other Ambulance, Fire, Police, or Environmental Emergency Resources:	**911**

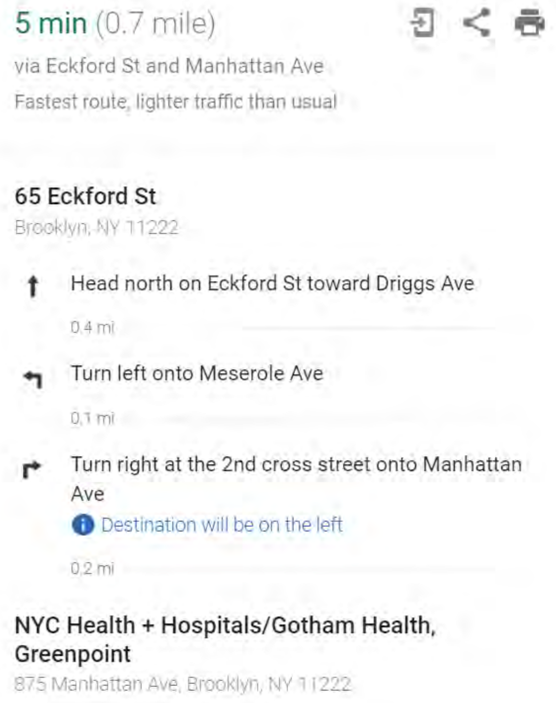
DIRECTIONS TO THE NEAREST HOSPITAL

Liberty Mutual Medical Location Directory

NYC Health + Hospitals/Gotham Health, Greenpoint
875 Manhattan Avenue
Brooklyn, NY 11222
844.692.4692



Directions to the Nearest Hospital:



5 min (0.7 mile)
via Eckford St and Manhattan Ave
Fastest route, lighter traffic than usual

65 Eckford St
Brooklyn, NY 11222

↑ Head north on Eckford St toward Driggs Ave
0.4 mi

↰ Turn left onto Meserole Ave
0.1 mi

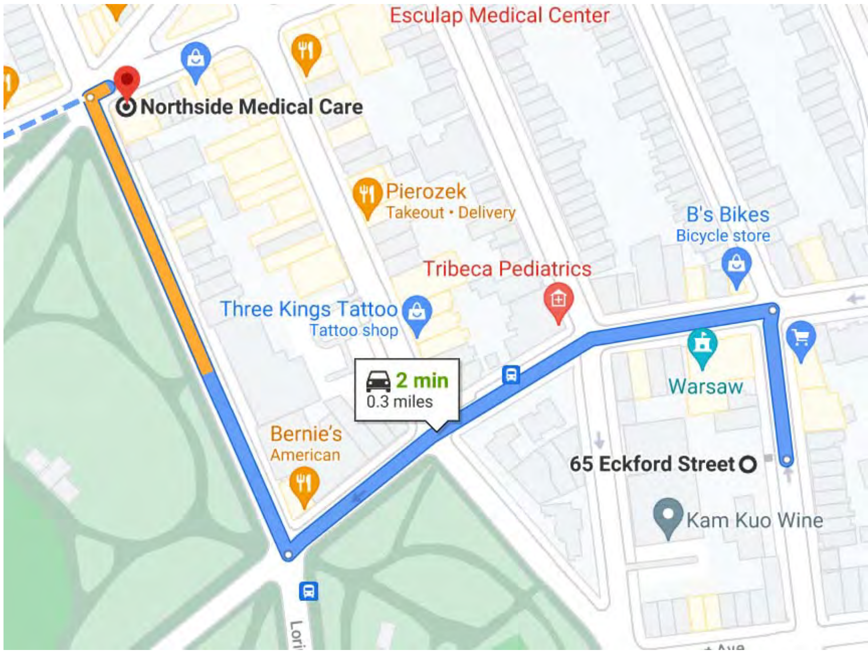
↱ Turn right at the 2nd cross street onto Manhattan Ave
ⓘ Destination will be on the left
0.2 mi

NYC Health + Hospitals/Gotham Health, Greenpoint
875 Manhattan Ave, Brooklyn, NY 11222

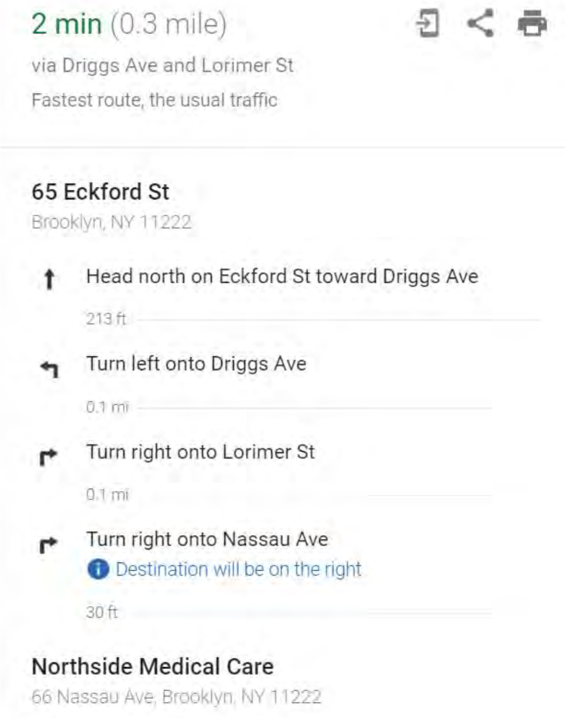
DIRECTIONS TO THE NEAREST URGENT CARE

[Liberty Mutual Medical Location Directory]

Northside Medical Care
66 Nassau Ave,
Brooklyn, NY 11222
718.383.4600



Directions to the Nearest Urgent Care:



2 min (0.3 mile)

via Driggs Ave and Lorimer St

Fastest route, the usual traffic

65 Eckford St
Brooklyn, NY 11222

↑ Head north on Eckford St toward Driggs Ave
213 ft

↰ Turn left onto Driggs Ave
0.1 mi

↱ Turn right onto Lorimer St
0.1 mi

↱ Turn right onto Nassau Ave
Destination will be on the right
30 ft

Northside Medical Care
66 Nassau Ave, Brooklyn, NY 11222

1. WORK SCOPE

This Site-Specific Health and Safety Plan addresses the health and safety practices and procedures that will be exercised by all Haley & Aldrich employees participating in all work on the Project Site. This plan is based on an assessment of the site-specific health and safety risks available to Haley & Aldrich and Haley & Aldrich's experience with other similar project sites. The scope of work includes the following:

Work tasks will include 1) Site walk and field measurements 2) Corrective action oversight (oversee fluid evacuation and backfilling) 3) Drilling (install soil borings and groundwater wells for an investigation) soil and 4) Groundwater, soil vapor sampling.

Project Task Breakdown

Task No.	Task Description	Employee(s) Assigned	Work Date(s) or Duration
1	Site walk, field measurements	Zachary Simmel	1 day
2	Corrective Action Implementation – Remedial Oversight and Air Monitoring	Zachary Simmel	2-3 months
3	Drilling, install soil borings and groundwater wells for an investigation	Zachary Simmel	2 days
4	Soil sampling/Soil vapor sampling, collect soil samples, soil vapor samples into laboratory provided containers	Zachary Simmel	2 days
5	Groundwater sampling, collect groundwater samples into laboratory provided containers	Zachary Simmel	2 days

Subcontractor(s) Tasks

Firm Name	Work Activity	Work Date(s) or Duration
Eastern Environmental Solutions	Drilling	2 days

Projected Start Date: 11/17/2021

Projected Completion Date: 12/31/2021

Firm Name	Work Activity	Work Date(s) or Duration
Prestige NY LLC	Construction Contractor	2-3 months

Projected Start Date: 9/17/2021

Projected Completion Date: 12/31/2021

2. SITE OVERVIEW / DESCRIPTION

Site Classification

Commercial

Site Description

The address of the Site is 65 Eckford Street, Brooklyn, NY 11222. It is comprised of a single tax parcels identified as Block 2698, Lot 26. The Site is located on the west side of Eckford Street in the Greenpoint neighborhood of Brooklyn, New York. The Site is an irregular shaped lot consisting of approximately 85 ft of frontage along Eckford Street. The Site is currently a vacant industrial building which was the eastern portion of the former NuHart plastics manufacturing facility. The western portion of the former NuHart facility is listed in the NYSDEC Inactive Hazardous Waste Registry as a Class 2 Site (Site No. 224136). Historically, the former NuHart facility was used for the manufacturing of plastic and vinyl products.

Background and Historic Site Usage

The Site was developed since at least 1887 and was used for metalworking, manufacturing of light fixtures, soaps, and water proofing materials through 1950. From 1950 until 2004, the Site and associated manufacturing buildings to the west were used by the NuHart company for the production, storage, and shipping of plastic and vinyl products. Operations ceased in 2004 and the Site buildings have been vacant since that time.

Site Status

Indicate current activity status and describe operations at the site:

Inactive

Operations ceased in 2004 and the Site buildings have been vacant since that time.

Site Plan

Is a site plan or sketch available? Yes

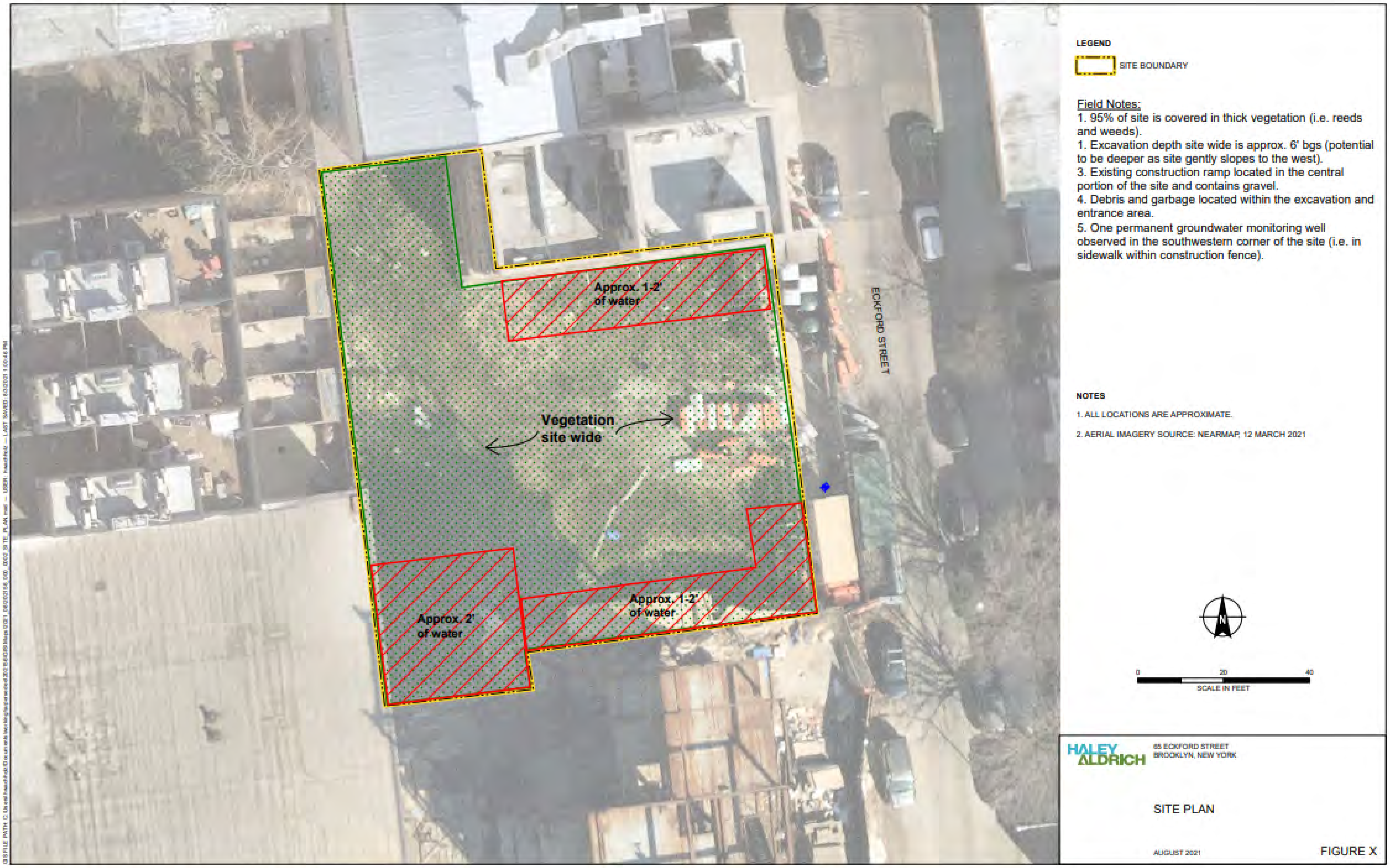
Work Areas

List and identify each specific work areas(s) on the job site and indicate its location(s) on the site plan:

Whole site

Enter work area description
Enter work area description
Enter work area description

Site Plan



Field Notes:

1. 95% of site is covered in thick vegetation (i.e. reeds and weeds).
1. Excavation depth site wide is approx. 6' bgs (potential to be deeper as site gently slopes to the west).
3. Existing construction ramp located in the central portion of the site and contains gravel.
4. Debris and garbage located within the excavation and entrance area.
5. One permanent groundwater monitoring well observed in the southwestern corner of the site (i.e. in sidewalk within construction fence).

NOTES

1. ALL LOCATIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: NEARMAP, 12 MARCH 2021

65 ECKFORD STREET
BROOKLYN, NEW YORK

3. HAZARD ASSESSMENT

Indicate all hazards that may be present at the site and for each task. If any of these potential hazards are checked, it is the Project Manager's responsibility to determine how to eliminate / minimize the hazard to protect onsite personnel.

Site Chemical Hazards

Is this Site impacted with chemical contamination? Yes

Source of information about contaminants: Owner Knowledge

Contaminant of Concern	Location/Media	Concentration	Units
Volatile Organic Compounds (VOCs)	**Soil**	**102.7**	**mg/kg**
Volatile Organic Compounds (VOCs)	**Groundwater**	**135-457**	**ug/L**
Arsenic	**Soil**	**13.4-31.5**	**mg/kg**
Barium	**Soil**	**743-818**	**mg/kg**
Lead	**Soil**	**103-2790**	**mg/kg**
Mercury	**Soil**	**0.4-14**	**mg/kg**

VOCs: include all organic compounds (substances made up of predominantly carbon and hydrogen) with boiling temperatures in the range of 50-260 degrees C, excluding pesticides. This means that they are likely to be present as a vapor or gas in normal ambient temperatures. Substances which are included in the VOC category include aliphatic hydrocarbons (such as hexane), aldehydes, aromatic hydrocarbons (such as benzene, toluene, and the xylenes or BTEX), and oxygenated compounds (such as acetone and similar ketones). The term VOC often is used in a legal or regulatory context and in such cases the precise definition is a matter of law.

VOCs are released from oil and gasoline refining, storage and combustion as well as from a wide range of industrial processes. Processes involving fuels, solvents, paints or the use of chemicals are the most significant sources. VOCs may also be emitted from cleaning products, degreasing products, fabrics, carpets, plastic products, glues, printed material, varnishes, wax, disinfectants, and cosmetics.

Typically, VOCs are present in gas or vapor and will enter the body by breathing contaminated air. Higher concentrations of VOCs may occur in areas of poor ventilation.

Arsenic: The Occupational Safety and Health Administration has set limits of 10 microgram arsenic per cubic meter of workplace air (10 µg/m3) for 8 hour shifts and 40 hour work weeks. 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.

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.

Barium: is a soft, silvery metal that rapidly tarnishes in air and reacts with water. It is mostly used in drilling fluids for oil and gas wells and used in paint and in glassmaking. All barium compounds are toxic; however, barium sulfate is insoluble and so can be safely swallowed. A suspension of barium sulfate is sometimes given to patients suffering from digestive disorders.

Barium has no known biological role, although barium sulfate has been found in one type of algae. Barium is toxic, as are its water- or acid-soluble compounds. Barium occurs only in combination with other elements. The major ores are barite (barium sulfate) and witherite (barium carbonate). Barium metal can be prepared by electrolysis of molten barium chloride, or by heating barium oxide with aluminum powder.

Lead: 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. Long-term exposure to lead can result in decreased performance in some tests measuring functions of the nervous system in adults. 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 and ultimately cause death.

Mercury: is an odorless, silver metallic liquid. It can be inhaled or absorbed through the skin. Contact may cause irritation to the skin or eyes. Toxic if ingested. Fume inhalation may cause irritation in the nose, throat or lungs. This is a corrosive chemical. Symptoms of poisoning include, muscle tremors, loss of appetite, and nausea. Long-term exposure may have effects on the central nervous system and kidneys. The PEL is 0.1 mg/m^3 averaged over an 8 hour shift.

Site Hazards Checklist

Weather

Hot Temperatures	Cold Temperatures	High Winds	Select Hazard

Hot Temperatures

Heat stress may occur at any time work is being performed at elevated ambient temperatures. Because heat stress is one of the most common and potentially serious illnesses associated with outdoor work during hot seasons, regular monitoring and other preventative measures are vital. Site workers must learn to recognize and treat the various forms of heat stress. The best approach is preventative heat stress management.

H&A employees and their subcontractors should be aware of potential health effects and/or physical hazards of working when there are hot temperatures or a high heat index. Refer OP1015-Heat Stress for a discussion on hot weather hazards.

Cold Temperatures

Cold stress may occur at any time work is being performed at low ambient temperatures and high velocity winds. Because cold stress is common and has potentially serious illnesses associated with outdoor work during cold seasons, regular monitoring and other preventative measures are vital.

Refer to OP1003-Cold Stress for additional information and mitigation controls.

High Winds

While high winds are commonly associated with severe thunderstorms and hurricanes they may also occur as a result of differences in air pressures, such as when a cold front passes across the area. They can cause downed trees and power lines, and flying debris (such as dust or larger debris), which adds additional risks and could lead to power outages, transportation disruptions, damage to buildings and vehicles, and serious injury.

Wind Advisory are issued for sustained winds 25 to 39 mph and/or gusts to 57 mph. High Wind warnings are issued by the National Weather Service when high wind speeds may pose a hazard or is life threatening. The criteria for this warning will varies by state. The Beaufort Wind Scale is a helpful tool to when dealing with high winds.

Biological			
Mosquitoes	Choose an item.	Choose an item.	Choose an item.

Mosquitos

Work outdoors with temperatures above freezing will likely bring staff into contact with mosquitos. There are a variety of mosquito species that can transmit a range of diseases. Birds act as reservoirs for the viruses that can be collected by the mosquito and transmitted to a person. Majority of mosquitos are mainly a nuisance but staff need to take appropriate precautions to minimize the potential transmission of a virus that can result in one of the following diseases: West Nile, Eastern Equine Encephalitides and Western Encephalitides. Knowing some key steps that can minimize the risk of mosquito bites is, therefore, important in reducing the risks. Workers working outdoors should be aware that the use of PPE techniques is essential to preventing mosquito bites especially when working at sites where mosquitoes may be active and biting.

Use repellents containing DEET, picaridin, IR3535, and some oil of lemon eucalyptus and para-menthane-diol products provide longer-lasting protection. To optimize safety and effectiveness, repellents should be used according to the label instructions. Cover as much of your skin as possible by wearing shirts with long-sleeves, long pants, and socks whenever possible. Avoid use of perfumes and colognes when working outdoors during peak times when mosquitoes may be active; mosquitoes may be more attracted to individuals wearing perfumes and colognes.

Location/Terrain

Slip/Trip/Falls	Choose an item.	Choose an item.	Choose an item.

Slips, Trips & Falls

Slip and trip injuries are the most frequent injuries to workers. Statistics show most falls happen on the same level resulting from slips and trips. Both slips and trips result from unintended or unexpected change in the contact between the feet and the ground or walking surface. Good housekeeping, quality of walking surfaces (flooring), awareness of surroundings, selection of proper footwear, and appropriate pace of walking are critical for preventing fall accidents.

Site workers will be walking on a variety of irregular surfaces, that may affect their balance. Extra care must be taken to walk cautiously near rivers because the bottom of the riverbed maybe slick and may not be visible. Rocks, gradient changes, sandy bottoms, and debris may be present but not observable.

Take your time and pay attention to where you are going. Adjust your stride to a pace that is suitable for the walking surface and the tasks you are doing. Check the work area to identify hazards - beware of trip hazards such as wet floors, slippery floors, and uneven surfaces or terrain. Establish and utilize a pathway free of slip and trip hazards. Choose a safer walking route. Carry loads you can see over. Keep work areas clean and free of clutter. Communicate hazards to on-site personnel and remove hazards as appropriate.

Miscellaneous

Extended Shift	Choose an item.	Choose an item.	Choose an item.

Extended Shift

An extended shift can include extending a workday beyond eight hours. Extended or unusual work shifts may be more stressful physically, mentally, and emotionally. Non-traditional shifts and extended work hours may disrupt the body's regular schedule, leading to increased fatigue, stress, and lack of concentration. This leads to an increased risk of operator error, injuries and/or accidents. The degree to which an individual is exposed to fatigue risk factors depends upon the work schedule. As both the duration of the workday and the number of days worked increase so does the fatigue risk factors. Staff Managers need to be aware of the fatigue risk factors and ensure projects are structured to mitigate these factors. Staff Members also have a responsibility to manage the personal fatigue risk factors that they can control outside of work (e.g, duration and quality of sleep, diet, drugs, and alcohol)

Fatigue is a message to the body to rest and can be eliminated with proper rest. However, if rest is not possible, fatigue can increase and becomes distressing and eventually debilitating. Fatigue symptoms, both mental and physical, vary and depend on the person and degree of overexertion. Examples include: weariness, sleepiness, irritability, reduced alertness, lack of memory, concentration and motivation, increased susceptibility to illness, depression, headache, loss of appetite, and digestive problems.

When possible, managers should limit use of extended shifts and increase the number of days worked. Working shifts longer than 8 hours generally result in reduced productivity and alertness. Additional breaks and meals should be provided when working extended shift periods. Tasks requiring heavy physical labor or intense concentration should be performed at the beginning of the shift if possible. This is an important consideration for pre-emergency planning.

Make efforts, when feasible, to ensure that unavoidable extended work shifts and shift changes allow affected employees time for adequate rest and recovery. Project Managers need to plan to have an adequate number of personnel available to enable workers to take breaks, eat meals, relax, and sleep.

Plan for regular and frequent breaks throughout the work shift. If at remote sites, ensure if possible, that there is a quiet, secluded area designated for rest and recuperation. In addition to formal breaks such as lunch or dinner, encourage use of micro breaks to change positions, move about, and shift concentration. Personnel should look to obtain an adequate quantity and quality of sleep.

Task Hazard Summary

Task 1 - Site Walk

General hazards associated with site walk-throughs and site surveys include the following: • Exposure to irritant and toxic plants such as poison ivy and sticker bushes may cause allergic reactions to personnel. • Surfaces covered with heavy vegetation and undergrowth create a tripping hazard. • Back strain due to carrying equipment, tools, and instruments. • Native wildlife such as rodents, ticks, and snakes present the possibility of insect bites and associated diseases such as Lyme disease
Driving vehicles on uneven or unsafe surfaces can result in accidents such as overturned vehicles or flat tires. • Heat stress/cold stress exposure.

HAZARD PREVENTION • Wear long-sleeved clothing and slacks to minimize contact with irritant and toxic plants and to protect against insect bites. Appropriate first aid for individuals' known allergic reactions. • Be alert and observe terrain while walking to minimize slips and falls. • Use proper lifting techniques to prevent back strain. • Avoid wildlife when possible. In case of an animal bite, perform first aid and capture the animal, if possible, for rabies testing. Perform a tick check after leaving a wooded or vegetated area. • Ensure all maintenance is performed on vehicles before going to the field. A site surveillance on foot might be required to choose clear driving paths. • Implement heat stress management techniques such as shifting work hours, fluid intake, and monitoring employees, especially high risk workers.

Task 2 – Remedial oversight and Air Monitoring

Remedial oversight includes community air monitoring, endpoint soil sampling and record keeping, may require working in close proximity to heavy equipment and may be exposed to many of the same hazards as the subcontractor. It is imperative that staff are aware of emergency stops and establish communication protocols with the contractors prior to the start of work.

See OP 1002 Drilling Safety for more information.

Task 3 – Drilling

Drilling is conducted for a range of services that can include but are not limited to: soil characterization, environmental investigation, well installation, and ore exploration. Familiarity with basic drilling safety is an essential component of all drilling projects. Potential hazards related to drilling operations include, but are not limited to encountering underground or overhead utilities, traffic and heavy equipment, hoisting heavy tools, steel impacts, open rotation entanglement, and the planned or unexpected encountering of toxic or hazardous substances. While staff members do not operate drilling equipment, they may work in close proximity to operating drilling equipment and may be exposed to many of the same hazards as the drilling subcontractor. It is imperative that staff are aware of emergency stops and establish communication protocols with the drillers prior to the start of work.

See OP 1002 Drilling Safety for more information.

Task 4 – Soil Sampling

Soil sampling by H&A staff on active construction sites can be conducted in conjunction with a wide range activities such as building construction, earthwork and soil management related activities. These activities can include, but are not limited to: drill spoil characterization and management during building foundation element installation, characterization of excavated soils for management/disposal/reuse during earthwork activities, and as part of environmental remedial activities such as delineation and confirmation sampling. Familiarity with basic heavy construction safety, site conditions (geotechnical and environmental), and potential soil contaminants are essential components of soil sampling performed on active sites. Potential hazards related to soil sampling at construction sites include, but are not limited to: encountering site vehicle traffic and heavy equipment operations, manual lifting, generated waste, contact or exposure to impacted soil, and encountering unknown toxic or hazardous substances. Although soil sampling is commonly performed within active excavations, from stockpiles, or within trench excavations, sampling locations and situations will vary depending on site conditions. Care should be taken while entering and exiting excavations or trenches, and when accessing (climbing up or down) soil stockpiles, ensuring that the sampling area is not being actively accessed by construction equipment. Care should also be taken with handling of potentially environmentally impacted soil during sampling, with appropriate PPE identified and used. At no time during classification activities are personnel to reach for debris near machinery that is in operation, place any samples in their mouth, or come in contact with the soils without the use of gloves. Staff will have to carry and use a variety of sampling tools, equipment, containers, and potentially heavy sample bags. It is imperative that staff are aware of emergency / communication protocols with the Contractor prior to the start of work.

Task 4– Soil Vapor Sampling

Soil gas sampling is employed as an indirect indicator of contamination in soil or groundwater particularly over and around landfill waste sites, or groundwater plumes. Soil gas sampling points can be installed manually using a slam bar or power driven mechanical devices (e.g., demolition hammer or Geoprobe) may be used based on site conditions (i.e., pavement, frozen ground, very dense clays, etc.). Soil gas samples can be drawn through the probe itself, or through Teflon tubing inserted through the probe and attached to the probe point. Samples are collected and analyzed as described below. Other field air monitoring devices, such as the Combustible Gas Indicator (CGI) and the Organic Vapor Analyzer (OVA), can also be used, depending on specific site conditions.

Because the sample is being drawn from underground, and no contamination is introduced into the breathing zone, soil gas sampling usually occurs in Level D. Nevertheless, ambient air should be constantly monitored to obtain background and breathing zone readings during the sampling procedure in the event the seal around the sampling point is breached. As long as the levels in ambient air do not rise above background, no upgrade of the level of protection is needed. Also, an underground utility search must be performed prior to sampling.

Task 5 – Groundwater Sampling

Environmental water sampling could include activities such as groundwater sampling from permanent or temporary wells, or surface water sampling from streams, rivers, lakes, ponds, lagoons, and surface impoundments.

Sampling tasks could involve uncapping, purging (pumping water out of the well), and sampling, and/or monitoring, new or existing monitoring wells. A mechanical pump may be used to purge the wells and can be hand-, gas-, or electric-operated. Water samples taken from the wells are then placed in containers and shipped to an analytical laboratory for analysis. The physical hazards of these operations are primarily associated with the collection methods and procedures used.

When sampling bodies of water containing known or suspected hazardous substances, adequate precautions must be taken to ensure the safety of sampling personnel. The sampling team member collecting the sample should not get too close to the edge, where ground failure or slips, trips or falls may cause him/her to lose his/her balance. The person performing the sampling should have fall restraint or protection for the task. When conducting sampling from a boat in an impoundment or flowing waters, appropriate vessel safety procedures should be followed. Avoid lifting heavy coolers with back muscles; instead, use ergonomic lifting techniques, team lift or mechanical lifts. Wear proper gloves, such as when handling sample containers to avoid contacting any materials that may have spilled out of the sample containers.

Inhalation and absorption of COCs are the primary routes of entry associated with water sampling, due to the manipulation of sample media and equipment, manual transfer of media into sample containers, and proximity of operations to the breathing zone. During this project, several different groundwater sampling methodologies may be used based on equipment accessibility and the types of materials to be sampled. These sampling methods may include hand or mechanical bailing. The primary hazards associated with these specific sampling procedures are not potentially serious; however, other operations in the area or the conditions under which samples must be collected may present chemical and physical hazards. The hazards directly associated with groundwater sampling procedures are generally limited to strains or sprains from hand bailing, and potential eye hazards. Exposure to water containing COCs is also possible. All tools and equipment that will be used at the site must be intrinsically safe (electronics and electrical equipment) and non-sparking or explosion-proof (hand tools).

Task Physical Hazards Checklist					
Potential Task Hazards	**Task 1** **Site walk, field measurement**	**Task 2** **Remedial oversight and air monitoring**	**Task 3** **Drilling**	**Task 4** **Soil sampling/ soil vapor sampling**	**Task 5** **Groundwater sampling**
Noise	☐	☒	☒	☐	☐
Heavy Equipment	☐	☒	☒	☐	☐
Hot Work	☒	☒	☒	☒	☒
Slippery Surfaces	☒	☒	☒	☒	☒
Ergonomics	☒	☒	☒	☒	☒
Congested Area	☒	☒	☒	☒	☒
Ground Disturbance	☐	☒	☒	☐	☐
Line of Fire	☒	☒	☒	☐	☐
Manual Lifting	☒	☒	☒	☒	☒
Sharp Objects	☒	☒	☒	☒	☒
Underground Utilities	☐	☒	☒	☐	☐

Summary of Physical Hazards & Controls

Noise

Working around heavy equipment (drill rigs, excavators, etc.) often creates excessive noise. The effects of noise include physical damage to the ear, pain, and temporary and/or permanent hearing loss. Workers can also be startled, annoyed, or distracted by noise during critical activities. Noise monitoring data that indicates that working within 25 feet of operating heavy equipment result in exposure to hazardous levels of noise (levels greater than 85 dBA).

See OP 1031 Hearing Conservation for additional information.

Controls

- Personnel are required to use hearing protection (earplugs or earmuffs) within 25 feet of any operating piece of heavy equipment.
- Limit the amount of time spent at a noise source.
- Move to a quiet area to gain relief from hazardous noise sources.
- Increase the distance from the noise source to reduce exposure.

Heavy Equipment

Staff must be careful and alert when working around heavy equipment, failure or breakage and limited visibility can lead to accidents and worker injury. Heavy equipment such as cranes, drills, haul trucks, or other can fail during operation increasing chances of worker injury. Equipment of this nature shall be visually inspected and checked for proper working order prior to commencement of field work. Those operating heavy equipment must meet all requirements to operate the equipment. Haley & Aldrich, Inc. staff that supervise projects or are associated with high risk projects that involve digging or drilling should use due diligence when working with a construction firm.

See OP1052 Heavy Equipment for additional information.

Controls

- Only approach equipment once you have confirmed contact with the operator (e.g., operator places the bucket on the ground).
- Always maintain visual contact with operators and keep out of the strike zone whenever possible.
- Always be alert to the position of the equipment around you.
- Always approach heavy equipment with an awareness of the swing radius and traffic routes of all equipment and never go beneath a hoisted load.
- Avoid fumes created by heavy equipment exhaust.

Hot Work

Hot work is any work that could produce a source of ignition or temperature high enough to cause the ignition of flammable gases and combustible materials. Hot work activities include burning, welding, grinding, braising, soldering, using fire or spark-producing tools. The main hazards associated with hot work are getting burned directly by the hot work activity or by fires or explosions that result from an accumulation of combustible materials in the work area.

Performing hot work in Classified and Non-Classified areas are considered a hazardous activity, and a Permit to Work may be required. In general, the Hot Work Permit has five purposes:
- To serve as written permission to do the work;
- To provide a minimum checklist prior to the commencement of hot work;
- To outline the steps necessary for making the work site safe for conducting hot work;
- To alert operating personnel to the hot work in progress; and
- To provide a record of safe work practices performed during the permitted activity.

Work shall be conducted in accordance with OP1034 Hot Work.

Controls
- Hot Work Permit must be completed.
- Conduct a risk assessment of the proposed work area to identify combustible or flammable material.
- If potential for flammable gases exists in the work area they must be monitored with a gas detector prior to starting any hot work.
- The hot work equipment shall be in satisfactory operating condition and in good repair.
- All combustible and flammable materials shall be relocated at least 35' in all directions from the work site.

If relocating these materials is impractical, the following precautions shall be taken:

- Materials shall be shielded with fire-retardant covers or metal or fire-retardant guards or curtains.
- The edges of covers at the floor shall be tight to prevent the entrance of sparks, including at the point where several covers overlap when a large pile is being protected.
- A fire watch may be required.
- A fully charged and operable fire extinguisher appropriate for the type of potential fire shall be available for use in the work area (20lbs minimum).
- A nonflammable, impervious material shall seal sewer openings, ducts and drains. Where sealing is insecure or impractical, water spray or stream should be directed across openings.
- The location of the hot work relative to combustible and flammable materials and classified areas shall determine the need for a fire watch
- Personnel within the vicinity of the hot work shall be suitably protected against such dangers as heat, sparks, flash and slag.

Slippery Surfaces

Both slips and trips result from unintended or unexpected change in the contact between the feet and ground or walking surface. Good housekeeping, quality of walking surfaces, selection of proper footwear, and appropriate pace of walking are critical for preventing fall accidents. Slips happen where there is too little friction or traction between the footwear and walking surface.

Common causes of slips are wet or oily surfaces, spills, weather hazards, loose unanchored rugs or mats and flooring or other walking surfaces that do not have same degree of traction in all areas.

Weather-related slips and falls become a serious hazard as winter conditions often make for wet or icy surfaces outdoors. Even wet organic material or mud can create hazardous walking conditions. Spills and leaks can also lead to slips and falls.

Controls

- Evaluate the work area to identify any conditions that may pose a slip hazard.
- Address any spills, drips or leaks immediately.
- Mark areas where slippery conditions exist.
- Select proper footwear or enhance traction with additional PPE.
- Where conditions are uncertain or environmental conditions result in slippery surfaces walk slowly, take small steps, and slide feet on wet or slippery surfaces.

Congested Areas

Working in congested areas can expose both workers and the public to a wide range of hazards depending upon the specific activities taking place. Staff Members need to understand the work scope, work areas, equipment on-site, and internal traffic patterns to minimize or eliminate exposure potential.

Controls

- Provide barricades, fencing, warning signs/signals and adequate lighting to protect people while working in or around congested areas.
- Vehicles and heavy equipment with restricted views to the rear should have functioning back-up alarms that are audible above the surrounding noise levels. Whenever possible, use a signaler to assist heavy equipment operators and/or drivers in backing up or maneuvering in congested areas.
- Lay out traffic control patterns to eliminate excessive congestion.
- Workers in congested areas should always wear high visibility clothing.
- Be aware of Line of Fire hazards when performing work activities in congested areas.
- Hazards associated with SIMOPs should be discussed daily at Tailgate Safety Meetings.

Ground Disturbance

Ground disturbance is defined as any activity disturbing the ground. Ground disturbance activities include, but are not limited to, excavating, trenching, drilling (either mechanically or by hand), digging, plowing, grading, tunneling and pounding posts or stakes.

Because of the potential hazards associated with striking an underground utility or structure, the operating procedure for underground utility clearance shall be followed prior to performing any ground disturbance activities.

See OP1020 Working Near Utilities

Controls

Prior to performing ground disturbance activities, the following requirements should be applied:

- Confirm all approvals and agreements (as applicable) either verbal or written have been obtained.

- Request for line location has been registered with the applicable One-Call or Dial Before You Dig organization, when applicable.
    - Whenever possible, ground disturbance areas should be adequately marked or staked prior to the utility locators site visit.
- Notification to underground facility operator/owner(s) that may not be associated with any known public notification systems such as the One-Call Program regarding the intent to cause ground disturbance within the search zone.
- Notifications to landowners and/or tenant, where deemed reasonable and practicable.
- Proximity and Common Right of Way Agreements shall be checked if the line locator information is inconclusive.

Line of Fire

Line of fire refers to the path an object will travel. Examples of line of fire situations typically observed on project sites include lifting/hoisting, lines under tension, objects that can fall or roll, pressurized objects or lines, springs or stored energy, work overhead, vehicles and heavy equipment.

Controls

- Never walk under a suspended load.
- Be aware and stay clear of tensioned lines such as cable, chain and rope.
- Be cautious of torque stresses that drilling equipment and truck augers can generate. Equipment can rotate unexpectedly long after applied torque force has been stopped.
- Springs and other items can release tremendous energy if compressed and suddenly released
- Items under tension and pressure can release tremendous energy if it is suddenly released.
- Not all objects may be overhead; be especially mindful of top-heavy items and items being transported by forklift or flatbed.
- Secure objects that can roll such as tools, cylinders, and pipes.
- Stay clear of soil cuttings or soil stockpiles generated during drilling operations and excavations, be aware that chunks of soil, rocks, and debris can fall or roll.

Manual Lifting/Moving

Most materials associated with investigation, remedial, or construction-related activities are moved by hand. The human body is subject to damage in the forms of back injury, muscle strains, and hernia if caution is not observed in the handling process.

Controls

- Under no circumstances should any one person lift more than 49 pounds unassisted.
- Always push, not pull, the object when possible.
- Size up the load before lifting. If it is heavy or clumsy, get a mechanical aid or help from a worker.
- Bend the knees; it is the single most important aspect of lifting.
- When performing the lift:
    - Place your feet close to the object and center yourself over the load.
    - Get a good handhold.

- Lift straight up, smoothly and let your legs do the work, not your back!
- Avoid overreaching or stretching to pick up or set down a load.
- Do not twist or turn your body once you have made the lift.
- Make sure beforehand that you have a clear path to carry the load.
- Set the load down properly.

Sharp Objects

Workers who handle sharp edged objects like sheets of steel or glass are at risk of cuts. Workers who handle sharp edged objects are also at risk of cuts. Injuries may occur to hands, fingers, or legs when they are in the way of the blade, when the blade slips, or if an open blade is handled unexpectedly. Other hazards at job sites include stepping on sharp objects (e.g. wooden boards with protruding nails, sharp work-tools, chisels, etc.) and colliding with sharp and/or protruding objects.

Controls

Always be alert when handling sharps. Never look away or become distracted while handling sharp objects. Use caution when working with tools; use right tool for the job. Keep tools sharp, dull blades are a safety hazard, requiring more force to make cuts which can lead to tool slippage. Wear appropriate PPE and do not handle sharp objects (i.e., broken glass) with bare hands. Use mechanical devices, when possible. Stay away from building debris; avoid handling site debris or placing your hand where you cannot see. Watch out for barbed wire and electrical fences; cover with a car mat or equivalent to cross or walk around; use the buddy system to avoid entanglement; wear gloves. Do not leave unprotected sharps unattended. Use protective shields, cases, styrofoam blocks, etc. Pass a sharp by handing it over carefully by the handle with the blade down or retracted. Fixed open blades are prohibited. Always cut away from the body, making several passes when cutting thicker materials. Make sure blades are fitted properly into the knife. Never cut items with a blade or other sharp object on your lap. Never try to catch a blade or cutting tool that is falling.

Underground Utilities

Various forms of underground/overhead utility lines or conveyance pipes may be encountered during site activities. Prior to the start of intrusive operations, utility clearance is mandated, as well as obtaining authorization from all concerned public utility department offices. Should intrusive operations cause equipment to come into contact with utility lines, the SHSO, Project Manager, and Regional H&S Manager shall be notified immediately. Work will be suspended until the client and applicable utility agency is contacted and the appropriate actions for the situation can be addressed.

See OP1020 Work Near Utilities for complete information.

Controls

- Obtain as-built drawings for the areas being investigated from the property owner;
- Visually review each proposed soil boring locations with the property owner or knowledgeable site representative;
- Perform a geophysical survey to locate utilities;
- Hire a private line locating firm to determine location of utility lines that are present at the property;

- Identifying a no-drill or dig zone;
- Hand dig or use vacuum excavation in the proposed ground disturbance locations if insufficient data is unavailable to accurately determine the location of the utility lines.

4. PROTECTIVE MEASURES

The personal protective equipment and safety equipment (if listed) is specific to the associated task. The required PPE and equipment listed must be onsite during the task being performed. Work shall not commence unless the required PPE or Safety Equipment is present.

Required Safety & Personal Protective Equipment

Required Personal Protective Equipment (PPE)	**Task 1**	**Task 2**	**Task 3**	**Task 4&5**
	Site walk, field measurement	Remedial oversight and air monitoring	Drilling	Soil sampling/Soil vapor sampling & Groundwater Sampling
Hard hat	☒	☒	☐	☐
Safety Glasses	☐	☒	☒	☒
Hearing Protection	☐	☒	☐	☐
Safety Toed Shoes	☒	☒	☒	☒
Class 2 Safety Vest	☒	☒	☒	☒
Face Shield	☐	☒	☒	☒
Level of protection required	D	D	D	D
Required Safety Equipment				
First Aid Kit	☒	☒	☒	☒

5. TRAINING REQUIREMENTS

The table below lists the training requirements staff must have respective to their assigned tasks and that are required to access the Site.

Site Specific Training Requirements

HAZWOPER - 40 Hour (Initial); HAZPOWER -8 Hour (Annual Refresher); OSHA - 10 hour Construction; Site Specific Orientation

Task Specific Training Requirements

Required Training Type	**Task 1**	**Task 2**	**Task 3**	**Task 4&5**
	Site walk, field measurement	Remedial oversight and air monitoring	Drilling	Soil sampling/Soil vapor sampling & Groundwater Sampling
HAZWOPER – 40 Hour (Initial); HAZPOWER – 8 Hour (Annual Refresher); and Site – Specific Orientation	☒	☐	☒	☒
DOT HAZMAT Transporter Training	☒	☒	☐	☐
10 hour OSHA Construction	☐	☒	☐	☐

6. AIR MONITORING PLAN AND EQUIPMENT

Exposures to airborne substances shall be fully characterized throughout project operations to ensure that exposure controls are effectively selected and modified as needed.

Is air/exposure monitoring required at this work site for personal protection? No

Is perimeter monitoring required for community protection? No

Air monitoring plan not applicable No

7. DECONTAMINATION & DISPOSAL METHODS

All possible and necessary steps shall be taken to reduce or minimize contact with chemicals and contaminated/impacted materials while performing field activities (e.g., avoid sitting or leaning on, walking through, dragging equipment through or over, tracking, or splashing potential or known contaminated/impacted materials.)

Personal Hygiene Safeguards

The following minimum personal hygiene safeguards shall be adhered to:

1. No smoking or tobacco products in any project work areas.
2. No eating or drinking in the exclusion zone.
3. It is required that personnel present on site wash hands before eating, smoking, taking medication, chewing gum/tobacco, using the restroom, or applying cosmetics and before leaving the site for the day.

It is recommended that personnel present on site shower or bathe at home at the end of each day of working on the site.

Decontamination Supplies

All decontamination should be conducted at the project site in designated zones or as dictated by Client requirements. Decontamination should not be performed on Haley & Aldrich owned or leased premises.

☐ Acetone	☒ Distilled Water	☐ Polyethylene Sheeting
☒ Alconox Soap	☐ Drums	☐ Pressure/Steam Cleaner
☐ Brushes	☐ Hexane	☒ Tap Water
☒ Disposal Bags	☐ Methanol	☐ Wash tubs
☒ 5 Gallon Buckets	☒ Paper Towels	☐ Other: Specify

Location of Decontamination Station

Decontamination will take place prior to leaving the site at the exit.

Standard Personal Decontamination Procedures

Outer gloves and boots should be decontaminated periodically as necessary and at the end of the day. Brush off solids with a hard brush and clean with soap and water or other appropriate cleaner whenever possible. Remove inner gloves carefully by turning them inside out during removal. Wash hands and forearms frequently. It is good practice to wear work-designated clothing while on-site which can be removed as soon as possible. Non-disposable overalls and outer work clothing should be bagged onsite prior to laundering. If gross contamination is encountered on-site contact the Project Manager and Field Safety Manager to discuss proper decontamination procedures.

The steps required for decontamination will depend upon the degree and type of contamination but will generally follow the sequence below.

1. Remove and wipe clean hard hat
2. Rinse boots and gloves of gross contamination
3. Scrub boots and gloves clean
4. Rinse boots and gloves
5. Remove outer boots (if applicable)
6. Remove outer gloves (if applicable)
7. Remove Tyvek coverall (if applicable)
8. Remove respirator, wipe clean and store (if applicable)
9. Remove inner gloves (if outer gloves were used)

PPE that is not grossly contaminated can be bagged and disposed in regular trash receptacles.

Small Equipment Decontamination

Pretreatment of heavily contaminated equipment may be conducted as necessary:

1. Remove gross contamination using a brush or wiping with a paper towel
2. Soak in a solution of Alconox and water (if possible)
3. Wipe off excess contamination with a paper towel

Standard decontamination procedure:

4. Wash using a solution of Alconox and water
5. Rinse with potable water
6. Rinse with methanol (or equivalent)
7. Rinse with distilled/deionized water

Inspect the equipment for any remaining contamination and repeat as necessary.

Disposal Methods

Procedures for disposal of contaminated materials, decontamination waste, and single use personal protective equipment shall meet applicable client, locate, State, and Federal requirements.

Disposal of Single Use Personal Protective Equipment

PPE that is not grossly contaminated can be bagged and disposed in regular trash receptacles. PPE that is grossly contaminated must be bagged (sealed and field personnel should communicate with the Project Manager to determine proper disposal.

Disposal Method for Contaminated Soil

- Contaminated soil cuttings and spoils must be containerized for disposal off-site unless otherwise specifically directed.
- Soil cuttings and spoils determined to be free of contamination through field screening can usually be returned to the boreholes or excavations from which they came.

Any additional requirements that are designated by the workplan or by client specifications should be entered here.

8. SITE CONTROL

The overall purpose of site control is to minimize potential contamination of workers, protect the public from the site's hazards, and prevent vandalism. Site control is especially important in emergency situations. The degree of site control necessary depends on site characteristics, site size, and the surrounding community. The following information identifies the elements used to control the activities and movements of people and equipment at the project site.

Communication

Internal
Haley & Aldrich site personnel will communicate with other Haley & Aldrich staff member and/or subcontractors or contractors with:

Face to Face Communication

External
H&S site personnel will use the following means to communicate with off-site personnel or emergency services.

Cellular Phones

Visitors

Project Site
Will visitors be required to check-in prior to accessing the project site?

Yes

Visitor Access
Authorized visitors that require access to the project site need to be provided with known information with respect to the site operations and hazards as applicable to the purpose of their site visit. Authorized visitors must have the required PPE and appropriate training to access the project site.

Zachary Simmel is responsible for facilitating authorized visitor access.

Zoning

Work Zone

The work zone will be clearly delineated to ensure that the general public or unauthorized worker access is prevented. The following will be used:

Cones

9. SITE SPECIFIC EMERGENCY RESPONSE PLAN

The Emergency Response Plan addresses potential emergencies at this site, procedures for responding to these emergencies, roles, responsibilities during emergency response, and training. This section also describes the provisions this project has made to coordinate its emergency response with other contractors onsite and with offsite emergency response organizations (as applicable).

During the development of this emergency response plan, local, state, and federal agency disaster, fire, and emergency response organizations were consulted (if required) to ensure that this plan is compatible and integrated with plans of those organizations. Documentation of the dates of these consultations are the names of individuals contacted is kept on file and available upon request.

The site has been evaluated for potential emergency occurrences, based on site hazards, and the major categories of emergencies that could occur during project work are:

- Fire(s)/Combustion
- Hazardous Material Event
- Medical Emergency
- Natural Disaster

A detailed list of emergency types and response actions are summarized in Table X below. Prior to the start of work, the SSO will update the table with any additional site-specific information regarding evacuations, muster points, or additional emergency procedures. The SSO will establish evacuation routes and assembly areas for the Site. All personnel entering the Site will be informed of these routes and assembly areas.

Pre-Emergency Planning

Before the start of field activities, the Project Manager will ensure preparation has been made in anticipation of emergencies. Preparatory actions include the following:

Meeting with the subcontractor/and or client concerning the emergency procedures in the event a person is injured. Appropriate actions for specific scenarios will be reviewed. These scenarios will be discussed, and responses determined before the sampling event commences. A form of emergency communication (i.e.; Cell phone, Air horn, etc.) between the Project Manager and subcontractor and/or client will be agreed on before the work commences.

A training session (i.e., “safety meeting”) given by the Project Manager or their designee informing all field personnel of emergency procedures, locations of emergency equipment and their use, and proper evacuation procedures.

Ensuring field personnel are aware of the existence of the emergency response HASP and ensuring a copy of the HASP accompanies the field team(s).

Onsite Emergency Response Equipment

Emergency procedures may require specialized equipment to facilitate work rescue, contamination control and reduction or post-emergency cleanup. Emergency response equipment stocked

Table 9.1 Emergency Equipment and Emergency PPE			
Emergency Equipment	**Specific Type**	**Quantity Stocked**	**Location Stored**
First Aid Kit	General First Aid Kit	1	With H&A personnel

EVACUATION ALARM
Verbal Communication (Site Personnel are adjacent in work zone)
EVACUATION ROUTES
Will be given a map after site specific training
EVACUATION MUSTER POINT(S)/ SHELTER AREA(S)
Will be given a location after site specific training
EVACUTION RESPONSE DRILLS
The Site relies on outside emergency responders and a drill is not required.

Table 9-2 – Emergency Planning

Emergency Type	Notification	Response Action	Evacuation Plan/Route
Chemical Exposure	Report event to SSO immediately	Refer to Safety Data Sheet for required actions	Remove personnel from work zone
Fire - Small	Notify SSO and contact 911	Use fire extinguisher if safe and qualified to do so	Mobilize to *Muster Point*
Fire – Large/Explosion	Notify SSO and contact 911	Evacuate immediately	Mobilize to *Muster Point*
Hazardous Material – Spill/Release	Notify SSO; SSO will contact PM to determine if additional agency notification is	If practicable don PPE and use spill kit and applicable procedures to contain the release	See Evacuation Map for route, move at least 100 ft upwind of spill location
Medical – Bloodborne Pathogen	Notify SSO	If qualified dispose in container or call client or city to notify for further instruction.	None Anticipated
Medical – First Aid	Notify SSO	If qualified perform first aid duties	None Anticipated
Medical – Trauma	If life threatening or transport is required call 911, immediately	Wait at site entrance for ambulance	Noe Anticipated
Security Threat	Notify SSO who will call 911 as warranted	Keep all valuables out of site and work zones delineated.	None Anticipated
Weather – Earthquake/Tsunami's	STOP WORK and evacuate Site upon any earthquake	Turn off equipment and evacuate as soon as is safe to do so	Mobilize to *Shelter Location*
Weather – Lightning Storm	STOP WORK	Work may resume 30 minutes after the last observed lightning.	None Anticipated
Weather – Tornadoes/Hurricanes	Monitor weather conditions STOP WORK and evacuate the site	Evacuate to shelter location or shelter in place immediately	Mobilize to *Shelter Location*
MUSTER POINT Site walk along the Eckdord street		*SHELTER LOCATION* Personal vehicle	
In case of site emergencies, site personnel shall be evacuated per this table and will not participate in emergency response activities. Site emergencies shall be reported to local, state, and federal governmental agencies as required.			

10. HASP ACKNOWLEDGEMENT FORM

All Haley & Aldrich employees onsite must sign this form prior to entering the site.

I hereby acknowledge receipt of, and briefing on, this HASP prior to the start of on-site work. I declare that I understand and agree to follow the provisions, processes, and procedures set forth herein at all times while working on this site.

Printed Name	Signature	Date

ATTACHMENT A
HASP AMENDMENT FORM

HASP AMENDMENT FORM

This form is to be used whenever there is an immediate change in the project scope that will require an amendment to the HASP. For project scope changes associated with "add-on" tasks, the changes must be made in the body of the HASP. Before changes can be made, a review of the potential hazards must be initiated by the Haley & Aldrich Project Manager.

This original form must remain on site with the original HASP. If additional copies of this HASP have been distributed, it is the Project Manager's responsibility to forward a signed copy of this amendment to those who have copies.

Amendment No.	
Site Name	
Work Assignment No.	
Date	
Type of Amendment	
Reason for Amendment	
Alternate Safeguard Procedures	
Required Changes in PPE	

Project Manager Name (Print)	Project Manager Signature	Date
Health & Safety Approver Name (Print)	Health & Safety Approver Signature	Date

ATTACHMENT B
TRAINING REQUIREMENTS

TRAINING REQUIREMENTS

Health and Safety Training Requirements

Personnel will not be permitted to supervise or participate in field activities until they have been trained to a level required by their job function and responsibility. Haley & Aldrich staff members, contractors, subcontractors, and consultants who have the potential to be exposed to contaminated materials or physical hazards must complete the training described in the following sections.

The Haley & Aldrich Project Manager/FSM will be responsible for maintaining and providing to the client/site manager documentation of Haley & Aldrich staff members' compliance with required training as requested. Records shall be maintained per OSHA requirements.

40-Hour Health and Safety Training

The 40-Hour Health and Safety Training course provides instruction on the nature of hazardous waste work, protective measures, proper use of personal protective equipment, recognition of signs and symptoms which might indicate exposure to hazardous substances, and decontamination procedures. It is required for all personnel working on-site, such as equipment operators, general laborers, and supervisors, who may be potentially exposed to hazardous substances, health hazards, or safety hazards consistent with 29 CFR 1910.120.

8-hour Annual Refresher Training

Personnel who complete the 40-hour health and safety training are subsequently required to attend an annual 8-hour refresher course to remain current in their training. When required, site personnel must be able to show proof of completion (i.e., certification) at an 8-hour refresher training course within the past 12 months.

8-Hour Supervisor Training

On-site managers and supervisors directly responsible for, or who supervise staff members engaged in hazardous waste operations, should have eight additional hours of Supervisor training in accordance with 29 CFR 1910.120. Supervisor Training includes, but is not limited to, accident reporting/investigation, regulatory compliance, work practice observations, auditing, and emergency response procedures.

Additional Training for Specific Projects

Haley & Aldrich personnel will ensure their personnel have received additional training on specific instrumentation, equipment, confined space entry, construction hazards, etc., as necessary to perform their duties. This specialized training will be provided to personnel before engaging in the specific work activities including:

- Client specific training or orientation
- Competent person excavations
- Confined space entry (entrant, supervisor, and attendant)
- Heavy equipment including aerial lifts and forklifts
- First aid/ CPR
- Use of fall protection
- Use of nuclear density gauges
- Asbestos awareness

ATTACHMENT C
ROLES AND RESPONSIBILITIES

SITE ROLES AND RESPONSIBILITIES

Haley & Aldrich Personnel

Field Safety Manager (FSM)

The Haley & Aldrich FSM is a full-time Haley & Aldrich staff member, trained as a safety and health professional, who is responsible for the interpretation and approval of this Safety Plan. Modifications to this Safety Plan cannot be undertaken by the PM or the SSO without the approval of the FSM.

Specific duties of the FSM include:

- Approving and amending the Safety Plan for this project
- Advising the PM and SHSOs on matter relating to health and safety
- Recommending appropriate personal protective equipment (PPE) and air monitoring instrumentation
- Maintaining regular contact with the PM and SSO to evaluate the conditions at the property and new information which might require modifications to the HASP and
- Reviewing and approving JSAs developed for the site-specific hazards.

Project Manager (PM)

The Haley & Aldrich PM is responsible for ensuring that the requirements of this HASP are implemented at that project location. Some of the PM´s specific responsibilities include:

- Assuring that all personnel to whom this HASP applies have received a copy of it;
- Providing the FSM with updated information regarding environmental conditions at the site and the scope of site work;
- Providing adequate authority and resources to the on-site SHSO to allow for the successful implementation of all necessary safety procedures;
- Supporting the decisions made by the SHSO;
- Maintaining regular communications with the SHSO and, if necessary, the FSM;
- Coordinating the activities of all subcontractors and ensuring that they are aware of the pertinent health and safety requirements for this project;
- Providing project scheduling and planning activities; and
- Providing guidance to field personnel in the development of appropriate Job Safety Analysis (JSA) relative to the site conditions and hazard assessment.

Site Health & Safety Officer (SHSO)

The SHSO is responsible for field implementation of this HASP and enforcement of safety rules and regulations. SHSO functions may include some or all of the following:

- Act as Haley & Aldrich´s liaison for health and safety issues with client, staff, subcontractors, and agencies.
- Verify that utility clearance has been performed by Haley & Aldrich subcontractors.
- Oversee day-to-day implementation of the Safety Plan by Haley & Aldrich personnel on site.

- Interact with subcontractor project personnel on health and safety matters.
- Verify use of required PPE as outlined in the safety plan.
- Inspect and maintain Haley & Aldrich safety equipment, including calibration of air monitoring instrumentation used by Haley & Aldrich.
- Perform changes to HASP and document in Appendix A of the HASP as needed and notify appropriate persons of changes.
- Investigate and report on-site accidents and incidents involving Haley & Aldrich and its subcontractors.
- Verify that site personnel are familiar with site safety requirements (e.g., the hospital route and emergency contact numbers).
- Report accidents, injuries, and near misses to the Haley & Aldrich PM and FSM as needed.

The SHSO will conduct initial site safety orientations with site personnel (including subcontractors) and conduct toolbox and safety meetings thereafter with Haley & Aldrich employees and Haley & Aldrich subcontractors at regular intervals and in accordance with Haley & Aldrich policy and contractual obligations. The SHSO will track the attendance of site personnel at Haley & Aldrich orientations, toolbox talks, and safety meetings.

Field Personnel

Haley & Aldrich personnel are responsible for following the health and safety procedures specified in this HASP and for performing their work in a safe and responsible manner. Some of the specific responsibilities of the field personnel are as follows:

- Reading the HASP in its entirety prior to the start of on-site work;
- Submitting a completed Safety Plan Acceptance Form and documentation of medical surveillance and training to the SHSO prior to the start of work;
- Attending the pre-entry briefing prior to beginning on-site work;
- Bringing forth any questions or concerns regarding the content of the Safety Plan to the PM or the SHSO prior to the start of work;
- Stopping work when it is not believed it can be performed safely;
- Reporting all accidents, injuries and illnesses, regardless of their severity, to the SHSO;
- Complying with the requirements of this safety plan and the requests of the SHSO; and
- Reviewing the established JSAs for the site-specific hazards on a daily basis and prior to each shift change, if applicable.

Visitors

Authorized visitors (e.g., Client Representatives, Regulators, Haley & Aldrich management staff, etc.) requiring entry to any work location on the site will be briefed by the Site Supervisor on the hazards present at that location. Visitors will be escorted at all times at the work location and will be responsible for compliance with their employer´s health and safety policies. In addition, this safety plan specifies the minimum acceptable qualifications, training and personal protective equipment which are required for entry to any controlled work area; visitors must comply with these requirements at all times. Unauthorized visitors, and visitors not meeting the specified qualifications, will not be permitted within established controlled work areas.

SUBCONTRACTOR PERSONNEL

Subcontractor Site Representative

Each contractor and subcontractor shall designate a Contractor Site Representative. The Contractor Site Representative will interface directly with Insert Staff Name Here, the Subcontractor Site Safety Manager, with regards to all areas that relate to this safety plan and safety performance of work conducted by the contractor and/or subcontractor workforce. Contractor Site Representatives for this site are listed in the Contact Summary Table at the beginning of the Safety Plan.

Subcontractor Site Safety Manager

Each contractor / subcontractor will provide a qualified representative who will act as their Site Safety Manager (Sub-SSM). This person will be responsible for the planning, coordination, and safe execution of subcontractor tasks, including preparation of job hazard analyses (JHA), performing daily safety planning, and coordinating directly with the Haley & Aldrich SHSO for other site safety activities. This person will play a lead role in safety planning for Subcontractor tasks, and in ensuring that all their employees and lower tier subcontractors are in adherence with applicable local, state, and/or federal regulations, and/or industry and project specific safety standards or best management practices.

General contractors / subcontractors are responsible for preparing a site-specific HASP and/or other task specific safety documents (e.g., JHAs), which are, at a minimum, in compliance with local, state, and/or federal other regulations, and/or industry and project specific safety standards or best management practices. The contractor(s)/subcontractor(s) safety documentation will be at least as stringent as the health and safety requirements of the Haley & Aldrich Project specific HASP.

Safety requirements include, but are not limited to: legal requirements, contractual obligations and industry best practices. Contractors/subcontractors will identify a site safety representative during times when contractor/subcontractor personnel are on the Site. All contractor/subcontractor personnel will undergo a field safety orientation conducted by the Haley & Aldrich SHSO and/or PM prior to commencing site work activities. All contractors / subcontractors will participate in Haley & Aldrich site safety meetings and their personnel will be subject to training and monitoring requirements identified in this Safety Plan. If the contractors / subcontractors means and methods deviate from the scope of work described in Section 1 of this Safety Plan, the alternate means and methods must be submitted, reviewed and approved by the Haley & Aldrich SHSO and/or PM prior to the commencement of the work task. Once approved by the Haley & Aldrich SHSO and/or PM, the alternate means and methods submittal will be attached to this Safety Plan as an Addendum.

ATTACHMENT D
JOB SAFETY ANALYSES

Safety
in everything we do

FORMER CARTER SPRAY FINISHING CORP.

KEY TASK ENTER TASK NUMBER.**:** ENTER TASK NAME.

Subtask Category	Potential Hazards	Controls
Drilling	Slips, Trips, and Falls	• Keep work area clear
Drilling	Utility locators and underground hazards	• Utility markout
Drilling	Noise reduction	• Wear appropriate noise reducing PPE
Drilling	Heavy equipment	• Avoid line of fire, wear PPE
Sampling	Slips, trips, and falls	• Keep work area clear
Sampling	General site hazards	• Wear PPE
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.