# 23-01 41ST AVENUE

## QUEENS, NEW YORK

# Remedial Investigation Report

**NYC OER Site Number: 15RHAZ357Q**

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# REMEDIAL INVESTIGATION REPORT

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# LIST OF ACRONYMS

| Acronym | Definition |
|---|---|
| AOC | Area of Concern |
| CAMP | Community Air Monitoring Plan |
| COC | Contaminant of Concern |
| CPP | Citizen Participation Plan |
| CSM | Conceptual Site Model |
| DER-10 | New York State Department of Environmental Conservation Technical Guide 10 |
| FID | Flame Ionization Detector |
| GPS | Global Positioning System |
| HASP | Health and Safety Plan |
| HAZWOPER | Hazardous Waste Operations and Emergency Response |
| IRM | Interim Remedial Measure |
| NAPL | Non-aqueous Phase Liquid |
| NYC VCP | New York City Voluntary Cleanup Program |
| NYC DOHMH | New York City Department of Health and Mental Hygiene |
| NYC OER | New York City Office of Environmental Remediation |
| NYS DOH ELAP | New York State Department of Health Environmental Laboratory Accreditation Program |
| OSHA | Occupational Safety and Health Administration |
| PID | Photoionization Detector |
| QEP | Qualified Environmental Professional |
| RI | Remedial Investigation |
| RIR | Remedial Investigation Report |
| SCO | Soil Cleanup Objective |
| SPEED | Searchable Property Environmental Electronic Database |

# CERTIFICATION

I, Paul P. Stewart, am a Qualified Environmental Professional, as defined in RCNY § 43-1402(ar). I have primary direct responsibility for implementation of the Remedial Investigation for the 23-01 41st Avenue, Long Island City, New York, OER project number 15RHAZ357Q. I am responsible for the content of this Remedial Investigation Report (RIR), have reviewed its contents and certify that this RIR is accurate to the best of my knowledge and contains all available environmental information and data regarding the property.

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Qualified Environmental Professional Date Signature

# EXECUTIVE SUMMARY

The Remedial Investigation Report (RIR) provides sufficient information for establishment of remedial action objectives, evaluation of remedial action alternatives, and selection of a remedy pursuant to RCNY§ 43-1407(f). The remedial investigation (RI) described in this document is consistent with applicable guidance.

**Site Location and Current Usage**

The Site is located at 23-01 41st Avenue in the Long Island City section in Queens, New York and is identified as Block 408 and Lot 5 on the New York City Tax Map. Figure 1 shows the Site location. The Site is an 8,519-square foot lot and is bounded by a two-story commercial building to the north, 41st Avenue followed by a fifteen-story mixed-use building to the south, a two-story commercial building to the east, and 23rd Street followed by a seven-story commercial building to the west. A map of the site boundary is shown in Figure 1. Currently, the Site is vacant and was most recently utilized as a gasoline filling station with a one-story auto repair shop.

**Summary of Proposed Redevelopment Plan**

The proposed future use of the Site will consist of a six-story mixed use commercial and residential building with a full cellar utilized for parking. Layout of the proposed site development is presented in Figure 2. The current zoning designation is M1-2/R6A. The proposed use is consistent with existing zoning for the property.

The proposed development consists of a full build-out of the property with a single building and a full cellar. The cellar will be set to a depth of approximately 10' below ground surface to account for footings and the foundation slab. The cellar will have a footprint of 6,117.8 square feet and contain 19 parking spots, meter rooms, a trash compactor room, a laundry room and an elevator. The ground floor will contain a residential lobby and 5 commercial units. There will be a total area of 5,396.37 square feet of commercial space. Floors 2 through 6 will be utilized as residential living space with a total of 37 apartments. The final height of the building is projected to be 82.34', including the parapet. There are currently no proposed landscaped areas. An estimated 4,800 tons of soils are projected to be excavated from the property, groundwater is

located approximately 10' below ground surface and is likely to be encountered during construction.

**Summary of Past Uses of Site and Areas of Concern**

Advanced Cleanup Technologies (ACT) completed a Phase I Environmental Site Assessment on January 26th, 2015. The previous usage of the property consisted of three one story residential buildings in the late 1800's that were demolished by 1915. By 1936 the property was occupied by a one-story filling station that remained on the property until 2015. The Phase I identified the following Recognized Environmental Conditions:

- Historical gasoline filling station at the subject property.
- An open petroleum spill at the adjacent property to the south.
- Inactive underground storage tanks at the subject property.
- A potential vapor encroachment condition at the subject property.

ACT recommended that a Phase II should be conducted to determine whether the environmental quality of the subject property had been impacted. The recommended Phase II was to include a Ground Penetrating Radar (GPR) Survey and the collection and analysis of soil, soil vapor and groundwater samples.

The AOCs identified for this site include:

1. Areas of soil contamination noted during the removal of USTs.
2. Open NYSDEC spill at the property.
3. Staining from historic auto repair activities.

**Summary of the Work Performed under the Remedial Investigation**

Queens Bridgeview Tower LLC performed the following scope of work:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Performed a geophysical investigation to determine the locations of USTs;

3. Installed eight soil borings across the entire project Site, and collected twenty-two soil samples for chemical analysis from the soil borings to evaluate soil quality;
4. Installed two temporary groundwater monitoring wells throughout the Site and collected two groundwater samples for chemical analysis to evaluate groundwater quality;
5. Installed four soil vapor probes around Site perimeter and collected four samples for chemical analysis.

**Summary of Environmental Findings**

1. The site is approximately 29 feet above sea level.
2. Depth to groundwater ranges from approximately 10 to 14 feet below ground surface at the Site.
3. Accurate depths to groundwater were not determined during this investigation. At the time of the investigation the MTA was working on the subway line adjacent to the property. A groundwater trailer was set up on the south side of 41st Avenue and is believed to be dewatering the area. Therefore, groundwater flow was not determined beneath the Site.
4. Bedrock was not encountered at the site during the investigation.
5. The stratigraphy of the site, from the surface down, consists of yellow-brown to orange-brown very fine and silty sands mixed with frequent clay.
6. Soil/fill samples collected during the RI were compared to NYSDEC Part 375-6.8 Unrestricted Use (Track 1) and Restricted Residential Use (Track 2) Soil Cleanup Objectives (SCOs). Several VOC were identified and of those 1,2,4-Trimethylbenzene (max of 540,000 µg/kg), 1,3,5-Trimethylbenzene (max of 180,000 µg/kg), total xylenes (max of 230,000 µg/kg), benzene (max of 18,000 µg/kg) and ethylbenzene (max of 170,000 µg/kg) exceeded Unrestricted Use SCOs and Restricted Residential Use SCOs. Petroleum related compounds above Unrestricted Use SCOs were detected in eleven of the twenty-two soil samples. Several SVOCs including benzo(a)anthracene (max of 2,690 µg/kg), benzo(a)pyrene (max of 1,210 µg/kg), benzo(b)fluoranthene (max of 1,150 µg/kg), indeno(1,2,3-c,d)pyrene (max of 1,020 µg/kg) and napthalene (max of 118,000

μg/kg). PCBs were not detected in any sample. One pesticide, 4,4'-DDT was detected above Unrestricted Use SCOs in shallow soil sample. Two metals were detected above Track 2 SCOs. Lead (max concentration of 1,040 μg/kg) and Mercury with a concentration of 1.42 μg/kg. Cadmium, chromium, copper, nickel, selenium and zinc exceeded Track 1 SCOs but did not exceed Track 2 Restricted Residential SCOs. During tank removal, the site was assigned spill number 14-10817.

7. Groundwater samples collected during the RI were compared to NYSDEC 6NYCRR Part 703.5 Groundwater Quality Standards (GQS). A total of 15 VOCs including 1,2,4-Trimethylbenzene (1,400 μg/L), 1,3,5-Trimethylbenzene (440 μg/L), benzene (460 μg/L), ethylbenzene (2,000 μg/L), isopropylbenzene (110 μg/L), n-Propylbenzene (220 μg/L), sec-Butylbenzene (12 μg/L), toluene (780 μg/L), total xylenes (5,100 μg/L), acetone (250 μg/L), chloroform (16 μg/L), methylene chloride (720 μg/L), methylcyclohexane (200 μg/L) and p-Isopropyltoluene (24 μg/L) were detected above their respective GQSs. Four SVOC's including 2-Methylnapthalene (max concentration of 501 μg/L), naphthalene (max concentration of 453 μg/L), 1,1'-Biphenyl (27.4 μg/L) and phenanthrene (55.5 μg/L) exceeded their GQSs. Pesticides were not detected in groundwater. PCB, Aroclor 1260 was detected at trace concentrations. Several metals were identified, but only iron, manganese, sodium and selenium were detected above their respective GQSs in dissolved groundwater.

8. Soil vapor samples collected during the RI were compared to the compounds listed in the New York State Department of Health (NYSDOH) Final Guidance for Evaluating Soil Vapor Intrusion. All of the detected compounds were below their respective guidance values. Soil vapor samples showed elevated levels of petroleum related compounds and trace levels of chlorinated VOCs in all soil vapor samples. Petroleum related BTEX compounds were detected at a maximum concentration of 45,100 ug/m$^3$ in SV-2. Elevated concentrations were detected for acetone (max. of 15,000 ug/m$^3$), cyclohexane (max. of 210,000 ug/m$^3$) and n-Hexane (max of 770,000 ug/m$^3$). Chlorinated VOCs, tetrachlorethene (PCE) and carbon tetrachloride were detected in one sample with concentrations of 3.3 μg/m$^3$ and 0.52 μg/m$^3$, respectively. Trichloroethene (TCE), and 1,1,1-tetrachloroethane were not detected in any soil vapor samples. The detected

concentrations of PCE and carbon tetrachloride were below the monitoring level range established by the NYSDOH.

# REMEDIAL INVESTIGATION REPORT

## 1.0 SITE BACKGROUND

Queens Bridgeview Tower LLC has enrolled in the New York City Voluntary Cleanup Program (NYC VCP) to investigate and remediate a 8,519-square foot site located at 23-01 41st Avenue in Long Island City section of Queens, New York. Mixed commercial and residential use is proposed for the property. The RI work was performed between March 3rd and March 12th, 2015. This RIR summarizes the nature and extent of contamination and provides sufficient information for establishment of remedial action objectives, evaluation of remedial action alternatives, and selection of a remedy that is protective of human health and the environment consistent with the use of the property pursuant to RCNY§ 43-1407(f).

### 1.1 Site Location and Current Usage

The Site is located at 23-01 41st Avenue in the Long Island City section in Queens, New York and is identified as Block 408 and Lot 5 on the New York City Tax Map. Figure 1 shows the Site location. The Site is an 8,519-square foot lot and is bounded by a two-story commercial building to the north, 41st Avenue followed by a fifteen-story mixed-use building to the south, a two-story commercial building to the east, and 23rd Street followed by a seven-story commercial building to the west. A map of the site boundary is shown in Figure 1. Currently, the Site is vacant and was most recently utilized as a gasoline filling station with a one-story auto repair shop.

### 1.2 Proposed Redevelopment Plan

The proposed future use of the Site will consist of a six-story mixed use commercial and residential building with a full cellar utilized for parking. Layout of the proposed site development is presented in Figure 2. The current zoning designation is M1-2/R6A. The proposed use is consistent with existing zoning for the property.

The proposed development consists of a full build-out of the property with a single building and a full cellar. The cellar will be set to a depth of approximately 10’ below ground surface to account for footings and the foundation slab. The cellar will have a footprint of 6,117.8 square feet and contain 19 parking spots, meter rooms, a trash compactor room, laundry room and an elevator. The ground floor will contain a residential lobby and 5 commercial units. There will be

a total area of 5,396.37 square feet of commercial space. Floors 2 through 6 will be utilized as residential living space with a total of 37 apartments. The final height of the building is projected to be 82.34', including the parapet. There are currently no proposed landscaped areas. An estimated 4,800 tons of soils are projected to be excavated from the property, groundwater is located approximately 10' below ground surface and is likely to be encountered during construction.

### 1.3 Description of Surrounding Property

The site is located at 23-01 41st Avenue in the Long Island City section of Queens. The surrounding area consists of commercial and residential buildings. The zoning for the area is M1-2/R6A for mixed-use properties. There are no sensitive receptors such as schools, hospitals or day care facilities within a 500-foot radius of the site.

Figure 3 shows the surrounding land usage.

# 2.0 SITE HISTORY

## 2.1 Past Uses and Ownership

Advanced Cleanup Technologies (ACT) completed a Phase I Environmental Site Assessment on January 26th, 2015. The previous usage of the property consisted of three one story residential buildings in the late 1800's that were demolished by 1915. By 1936 the property was occupied by a one-story filling station that remained on the property until 2015. The Phase I identified the following Recognized Environmental Conditions:

- Historical gasoline filling station at the subject property.
- An open petroleum spill at the adjacent property to the south.
- Inactive underground storage tanks at the subject property.
- A potential vapor encroachment condition at the subject property.

ACT recommended that a Phase II should be conducted to determine whether the environmental quality of the subject property had been impacted. The recommended Phase II was to include a Ground Penetrating Radar (GPR) Survey and the collection and analysis of soil, soil vapor and groundwater samples.

## 2.2 Previous Investigations

No previous investigations were provided at the time of the report. Action Environmental was contracted to remove the existing USTs at the property. ACT was contracted to oversee the tank removals. The tanks were removed between February 10th and February 17th, 2015. The site was registered as containing a 4,000-gal gasoline tank, a 2,000-gal gasoline tank and a 4,000-gal diesel tank. During the removal of the registered tanks, a total of eleven 550-gallon steel tanks were discovered. The tanks were all encased in concrete and removed from the property. During the removal of the tanks soil contamination was noted and a spill was called in to the New York State Department of Environmental Conservation. The site was assigned spill number 14-10817.

## 2.3 Site Inspection

A site inspection was conducted on January 9th, 2015 by Steven Walls of ACT. The site was an active Eagle retail filling station with a one-story office/auto body shop and two pump islands. The auto body shop was vacant at the time of the inspection and contained areas of staining.

## 2.4 Areas of Concern

The AOCs identified for this site include:

1. Areas of soil contamination noted during the removal of USTs.
2. Open NYSDEC spill at the property.
3. Staining from historic auto repair activities.

Phase 1 Report is presented in Appendix 1.

# 3.0 PROJECT MANAGEMENT

## 3.1 Project Organization

The Qualified Environmental Profession (QEP) responsible for preparation of this RIR is Paul P. Stewart.

## 3.2 Health and Safety

All work described in this RIR was performed in full compliance with applicable laws and regulations, including Site and OSHA worker safety requirements and HAZWOPER requirements.

## 3.3 Materials Management

All material encountered during the RI was managed in accordance with applicable laws and regulations.

# 4.0 REMEDIAL INVESTIGATION ACTIVITIES

Queens Bridgeview Tower LLC performed the following scope of work:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Performed a geophysical investigation to determine the locations of USTs;
3. Installed eight soil borings across the entire project Site, and collected twenty-two soil samples for chemical analysis from the soil borings to evaluate soil quality;
4. Installed two temporary groundwater monitoring wells throughout the Site and collected two groundwater samples for chemical analysis to evaluate groundwater quality;
5. Installed four soil vapor probes around Site perimeter and collected four samples for chemical analysis.

## 4.1 Geophysical Investigation

The geophysical survey was completed on February 25th, 2015. The survey encompassed all accessible areas of the site. Field notes from the survey are contained in Appendix 2.

The survey was performed utilizing and SIR-3000 Ground-Penetrating Radar (GPR) unit at a range to allow for the identification of anomalies to a depth of 10 feet below ground surface. At the time of the survey no anomalies were identified large enough to be indicative of a UST. The anomalies identified were indicative of small diameter piping.

GPR is primarily used as a preliminary survey of a property for the development of subsurface information prior to a formal site assessment. Surface cover or obstructions, subsurface soil types and buried debris can mask or conceal the presence and precise locations of underground structured or even suggest their presence when none exist. The presence, absence or precise locations of underground structures indicated during a GPR survey should be confirmed by excavation, subsurface sampling or other invasive procedures.

## 4.2 Borings and Monitoring Wells

### Drilling and Soil Logging

Eight soil borings were installed around the site at the locations indicated in Figure 4. All samples were installed in the exterior asphalt lot and the interior of the former auto repair shop. Each boring was installed utilizing a truck-mounted Geoprobe-style hydraulic equipment in combinations with five-foot macro core soil samplers containing dedicated acetate liners. All down hole drilling equipment was decontaminated between sampling events to minimize the possibility of cross contamination.

Soil was continuously sampled in each soil boring from ground surface to a depth of 14 feet below ground surface (bgs) or the depth that refusal was encountered. All soil samples were screened for volatile organic compounds (VOCs) utilizing a Photovac 2020 Photo Ionization Detector (PID) and visually examined for lithology and the presence of contamination. Soil borings SB-2 through SB-6 contained elevated PID readings and staining indicative of petroleum contamination. The PID malfunctioned during the sampling of SB-7 and SB-8 and no readings were taken.

SB-1 was attempted twice. Refusal was encountered at 4.5’ bgs both times. Due to the proximity of the boring to the building utilities it was determined a third location would not be attempted. A soil sample was collected from the 0-2’ depth.

Soil borings SB-2 through SB-6 were installed to a final depth of 15’ bgs. Groundwater was encountered in the borings at the site ranging from approximately 10 to 14’ bgs. Samples were collected from the shallow soils 0-2’, the depth below projected cellar excavation 8-10’ bgs and the smear zone 12-14’ bgs.

Lastly, soil borings SB-7 and SB-8 were installed inside the existing former auto repair building. The borings were installed with Geoprobe-style portable hydraulic equipment in combinations with four-foot macro core soil samplers containing dedicated acetate lines. The soil borings were installed to depths of 16’ bgs and groundwater was encountered at approximately 14’ bgs. Samples were collected from the shallow soils 0-2’, the depth below projected cellar excavation 8-10’ bgs and the smear zone 12-14’ bgs.

Twenty-two soil samples were collected from the site and placed in appropriate laboratory issued containers. Samples were submitted to York Analytical Laboratories, Inc. (NYSDOH #10854). Soil samples were analyzed for VOCs in accordance with EPA method 8260, SVOCs in accordance with EPA method 8270, TAL metals in accordance with EPA methods 6010 and 7471 and lastly PCBs and Pesticides in accordance with EPA methods 8081 and 8082.

Boring logs were prepared by a geologist and are attached in Appendix 2. A map showing the location of soil borings and temporary groundwater wells is shown in Figure 4.

**Groundwater Monitoring Well Construction**

Groundwater quality was determined during this investigation through the installation and sampling of two temporary groundwater wells. The samples were collected utilizing a two foot steel groundwater sampler in combination with 4' hollow steel rods. The locations of the groundwater sampling points are depicted in Figure 4.

**Survey**

Due to the temporary construction of the wells and limited groundwater recovery a formal survey of the sampling point was not conducted.

**Water Level Measurement**

Groundwater was generally encountered between 10 and 14 feet below ground surface. At the time of the investigation the MTA was working on the subway line adjacent to the property. A groundwater trailer was set up on the south side of 41st Avenue and is believed to be dewatering the area. Due to the temporary construction of the monitoring wells and the dewatering activities in the area an accurate measurement of depth to water was not determined.

## 4.3 Sample Collection and Chemical Analysis

Sampling performed as part of the field investigation was conducted for all Areas of Concern and also considered other means for bias of sampling based on professional judgment, area history, discolored soil, stressed vegetation, drainage patterns, field instrument measurements, odor, or other field indicators. All media including soil, groundwater and soil vapor have been sampled and evaluated in the RIR. Discrete (grab) samples have been used for final delineation of the nature and extent of contamination and to determine the impact of contaminants on public

health and the environment. The sampling performed and presented in this RIR provides sufficient basis for evaluation of remedial action alternatives, establishment of a qualitative human health exposure assessment, and selection of a final remedy.

**Soil Sampling**

Twenty-two soil samples were collected for chemical analysis during this RI. Data on soil sample collection for chemical analyses, including dates of collection and sample depths, is reported in Tables 1 through 4. Figure 4 shows the location of samples collected in this investigation. Laboratories and analytical methods are shown below.

All equipment was properly decontaminated between each sampling event and after each use to prevent the contamination of samples. Care was taken to store and transport the equipment away from cleaning solvents and gasoline. Cleaned equipment was handled as little as possible prior to use and disposable gloves were worn during the handling. Sampling field equipment was field decontaminated according to the following steps:

- Washed with solution of non-phosphate detergent in tap water;
- Rinsed with tap water;
- Rinsed with distilled/de-ionized water;
- Rinsed with methanol;
- Rinsed with distilled/de-ionized water;
- Air dry.

A decontamination area was set up in a non-contaminated area of the site, away from the work area. A polyethylene tarp was placed on the ground and the cleaning/rinsing solutions were stored in laboratory wash bottles to reduce waste generation. Scrub brushes were used to remove residue from the equipment. All rinse solutions were collected into one-gallon polyethylene containers and transported to ACT's Port Washington office for disposal as manifested laboratory waste.

### Groundwater Sampling

Two groundwater samples were collected for chemical analysis during this RI. Groundwater sample collection data is reported in Tables 5 through 8. Sampling logs with information on purging and sampling of groundwater monitor wells is included in Appendix 3. Figure 4 shows the location of groundwater sampling. Laboratories and analytical methods are shown below.

### Soil Vapor Sampling

Four soil vapor probes were installed and four soil vapor samples were collected for chemical analysis during this RI. Soil vapor sampling locations are shown in Figure 4. Soil vapor sample collection data is reported in Table 9. Soil vapor sampling logs are included in Appendix 3. Methodologies used for soil vapor assessment conform to the *NYS DOH Final Guidance on Soil Vapor Intrusion, October 2006.*

### Chemical Analysis

Chemical analytical work presented in this RIR has been performed in the following manner:

| Factor | Description |
|---|---|
| Quality Assurance Officer | The chemical analytical quality assurance is directed by Paul P. Stewart. |
| Chemical Analytical Laboratory | Chemical analytical laboratory(s) used in the RI is NYS ELAP certified and were York Analytical Laboratories, Inc. (NYSDOH #10854). |
| Chemical Analytical Methods | Soil analytical methods:<br>• TAL Metals by EPA Method 6010C (rev. 2007);<br>• VOCs by EPA Method 8260C (rev. 2006);<br>• SVOCs by EPA Method 8270D (rev. 2007);<br>• Pesticides by EPA Method 8081B (rev. 2000); |

| | |
|---|---|
| | • PCBs by EPA Method 8082A (rev. 2000);<br>Groundwater analytical methods:<br>• TAL Metals by EPA Method 6010C (rev. 2007);<br>• VOCs by EPA Method 8260C (rev. 2006);<br>• SVOCs by EPA Method 8270D (rev. 2007);<br>• Pesticides by EPA Method 8081B (rev. 2000);<br>• PCBs by EPA Method 8082A (rev. 2000);<br>Soil vapor analytical methods:<br>• VOCs by TO-15 VOC parameters.. |

**Results of Chemical Analyses**

Laboratory data for soil, groundwater and soil vapor are summarized in Tables 1 through 9. Laboratory data deliverables for all samples evaluated in this RIR are provided in digital form in Appendix 4.

# 5.0 ENVIRONMENTAL EVALUATION

## 5.1 Geological and Hydrogeological Conditions

**Stratigraphy**

The topography of the site consists of a mild slope to the south-southwest. The nearest surface water body is the East River, located approximately 0.6 miles to the west. The stratigraphy of the site, from the surface down consists of yellow-brown to orange-brown very fine and silty sands mixed with frequent clay. Bedrock was not encountered during the coarse of the investigation.

**Hydrogeology**

Groundwater is expected to flow southwest based on the topography of the site and the proximity to the east river. Groundwater was generally encountered 10 to 14 feet below ground surface. An accurate depth to groundwater was not determined during this investigation.

### 5.2 Soil Chemistry

Data collected during the RI is sufficient to delineate the vertical and horizontal distribution of contaminants in soil/fill at the Site. A summary table of data for chemical analyses performed on soil samples is included in Tables 1 through 4. Figure 5 shows the location and posts the values for soil/fill that exceed the 6NYCRR Part 375-6.8 Track 2 Soil Cleanup Objectives.

It can be seen from table 1 that there was a total of 5 VOC's detected above Track 2 SCOs. 1,2,4-Trimethylbenzene was detected in exceedence of SCOS in SB-2 (0-2), SB-2 (12-14), SB-4 (8-10), SB-4 (12-14), SB-5 (12-14), SB-6 (12-14), SB-7 (12-14) and SB-8 (12-14) with a maximum concentration of 540,000 µg/kg. 1,3,5-Trimethylbenzene [maximum concentration of 180,000 µg/kg in SB-6 (12-14)], and total xylenes [maximum concentration of 910 µg/kg in SB-6 (12-14)] were detected above their respective Track 2 SCOs in SB-2 (12-14), SB-4 (12-14), SB 5 (12-14) and SB-6 (12-14). SB-7 (12-14) also contained 1,3,5-Trimethylbenzene above Track 2 SCOs. The last compounds detected above their Track 2 SCOs were Benzene [maximum concentration of 18,000 µg/kg in SB-5 (12-14)] and Ethylbenzene [maximum concentration of 170,000 µg/kg in SB-6 (12-14)]; they were detected in SB-2 (0-2), SB-5 (12-14) and SB-6 (0-2). The compounds detected are common gasoline constituents and are likely due to the historic usage of the property as a gasoline filling station.

Table 2 indicates that no SVOC's were detected above Track 2 SCOs in SB-2 (8-10), SB-2 (12-14), SB-3 (0-2), SB-3 (8-10), SB-3 (12-14), SB-4 (0-2), SB-4 (8-10), SB-4 (12-14), SB-5 (8-10), SB-6 (8-10) and SB-6 (12-14). A total of five SVOCs were detected above Track 2 SCOs. SB-1 (0-2), SB-5 (0-2) and SB-7 contained Benzo(a)anthracene (max concentration of 2,690 µg/kg). SB-5 (0-2) contained benzo(a)pyrene (max concentration of 1,210 µg/kg), benzo(b)fluoranthene (max concentration of 1,150 µg/kg) above their respective Track 2 SCOs. SB-1 (0-2), SB-5 (0-2) and SB-6 (0-2) contained indeno(1,2,3-c,d)pyrene (max concentration of 1,020 µg/kg) above Track 2 SCOs. Lastly, SB-2 (0-2) contained napthalene (max concentration of 118,000 µg/kg) above its Track 2 SCOs. All of the SVOCs detected above soil cleanup objectives are classified as poly-aromatic hydrocarbons (PAHs) that are commonly found in historical fill materials. PAHs are compounds that can be created by burning petroleum products such as coal, oil and gas.

Table 3 summarizes the PCB and Pesticides concentration in the soil samples. No PCBs or Pesticides were detected above Track 2 SCOs. Concentrations of TAL metals are summarized in Table 5. Two metals were detected above Track 2 SCOs. Lead (max concentration of 1,040 µg/kg) in SB-2 (0-2) and SB-6 (0-2) and Mercury with a concentration of 1.42 µg/kg in SB-6 (0-2). Metals are commonly found at higher concentrations in urban areas due to the presence of fill materials. All of the highest concentrations of metals were detected at the shallow sampling interval, indicating that ground water is unlikely the source of the contamination.

Based on the sampling results described above, the majority of the VOC contamination is located in the 12-14 foot depth or the groundwater smear zone. SVOC and metal contamination appears to be restricted to shallow soils on the north and west sides of the property.

## 5.3 Groundwater Chemistry

Data collected during the RI is sufficient to delineate the distribution of contaminants in groundwater at the Site. A summary table of data for chemical analyses performed on groundwater samples is included in Tables 5 through 8. Figure 6 shows the location and posts the values for groundwater that exceed the New York State 6NYCRR Part 703.5 Class GA groundwater standards.

It can be seen from Table 5 that a total of 15 VOCs were detected above their respective groundwater quality standards (GQSs). 1,2,4-Trimethylbenzene (max concentration of 1,400),

1,3,5-Trimethylbenzene (max concentration of 440 μg/L), Benzene (max concentration of 460 μg/L), Ethylbenzene (max concentration of 2,000 μg/L), Isopropylbenzene (max concentration of 110 μg/L), n-Propylbenzene (max concentration of 220 μg/L), sec-Butylbenzene (max concentration of 12 μg/L), toluene (max concentration of 780 μg/L) and total xylenes (max concentration of 5,100 μg/L) were detected above their respective GQSs in both TW-2 and TW-3. TW-2 contained acetone, chloroform and methylene chloride above their respective GQSs. Lastly, TW-3 contained methylcyclohexane and p-Isopropyltoluene above their GQSs. The other compounds detected were below the GQSs and would be commonly found in the industrial and urban area that the site is located.

Table 6 shows the concentrations of semi-volatile organic compounds detected in the groundwater samples obtained at the site. Four SVOC's were detected above their corresponding GQSs. TW-2 and TW-3 contained 2-Methylnapthalene (max concentration of 501 μg/L) and naphthalene (max concentration of 453 μg/L). TW-2 also contained 1,1'-Biphenyl and phenanthrene above their GQSs.

Table 7 shows the concentration of PCBs and Pesticides in the groundwater samples. There were no exceedences of PCBS or Pesticides in either of the samples. Lastly, Table 8 shows that there were exceedences of four metals in dissolved metal concentrations in the groundwater samples. Iron was detected at a max concentration of 77,300 μg/L, which is above the GQS of 300 μg/L. Manganese was detected above it's GQS of 300 μg/L with a maximum concentration of 16,500 μg/L. Sodium was detected at a maximum concentration of 290,000 μg/L, which is above the GQS of 20,000 μg/L. Lastly, selenium was detected above it's GQS of 10 μg/L in TW-3 with a concentration of 12 μg/L.

## 5.4 Soil Vapor Chemistry

Data collected during the RI is sufficient to delineate the distribution of contaminants in soil vapor at the Site. A summary table of data for chemical analyses performed on soil vapor samples is included in Table 9.

As shown in Table 9, multiple VOCs were detected in soil vapor. SV-1 through SV-4 did not contain concentrations of VOCs above NYSDOH monitoring levels. Trichloroethene (TCE), and 1,1,1-tetrachloroethane were not detected in any soil vapor samples. Chlorinated VOCs, tetrachlorethene (PCE) and carbon tetrachloride were detected in one sample (SV-1) with concentrations of 3.3 $\mu g/m^3$ and 0.52 $\mu g/m^3$, respectively. The detected concentration of

tetrachloroethene and carbon tetrachloride were below the monitoring level range established by NYSDOH. Overall, the highest concentrations of compounds were detected for n-Hexane at maximum of 770,000 ug/$m^3$. Petroleum related BTEX compounds were detected at concentrations ranging from 114 µg/$m^3$ to a maximum concentration of 45,100 ug/$m^3$ in SV-2. All of the compounds detected in soil vapor were detected in the soil samples. The concentrations of BTEX are likely due to the historical use of the site as a gasoline filling station and are related to the open petroleum spill.

## 5.5 Prior Activity

Based on an evaluation of the data and information from the RIR, disposal of significant amounts of hazardous waste is not suspected at this site.

## 5.6 Impediments to Remedial Action

There are no known impediments to remedial action at this property.

# TABLES

# FIGURES

# Figure 2: Redevelopment Plans

# APPENDIX 1 – PREVIOUS ENVIRONMENTAL REPORTS

# APPENDIX 2 – SOIL BORING LOGS

# APPENDIX 3 – FIELD NOTES

# APPENDIX 4 – ANALYTICAL REPORTS

**Table 1**

**Volatile Organic Compounds in Soil (ug/kg-dry)**
**EPA Method 8260**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | RRSCO [2] | CSCO [3] | SB-1 (0-2)<br>3/12/15 | SB-2 (0-2)<br>3/4/15 | SB-2 (8-10)<br>3/4/15 | SB-2 (12-14)<br>3/4/15 | SB-3 (0-2)<br>3/3/15 | SB-3 (8-10)<br>3/3/15 |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| 1,1,1-Trichloroethane | 100,000 | 500,000 | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| 1,1,2,2-Tetrachloroethane | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| 1,1,2-Trichloroethane | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| 1,1-Dichloroethane | 26,000 | 240,000 | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| 1,1-Dichloroethene | 100,000 | 500,000 | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| 1,2,4-Trichlorobenzene | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| 1,2,4-Trimethylbenzene | 5,200 | 19,000 | <2.4 | **87,000** | <2,900 | **160,000** | **13** | <2.3 |
| 1,2-Dibromo-3-chloropropane | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| 1,2-Dibromoethane | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| 1,2-Dichlorobenzene | 100,000 | 500,000 | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| 1,2-Dichloroethane | 3,100 | 30,000 | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| 1,2-Dichloropropane | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| 1,3,5-Trimethylbenzene | 5,200 | 19,000 | <2.4 | **31,000** | <2,900 | **53,000** | **13** | <2.3 |
| 1,3-Dichlorobenzene | 49,000 | 280,000 | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| 1,4-Dichlorobenzene | 13,000 | 130,000 | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| 1,4-Dioxane | 1,300 | 13,000 | <47 | <68,000 | <57,000 | <56,000 | <61 | <46 |
| Cyclohexane | NS | NS | <2.4 | **44,000** | **13,000** | <2,800 | **120** | **9.4** |
| 2-Butanone | 100,000 | 500,000 | **3.1** | <3,400 | <2,900 | <2,800 | **44** | <2.3 |
| 2-Hexanone | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| 4-Methyl-2-pentanone | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Acetone | 100,000 | 500,000 | <4.7 | <6,800 | **7,000** | <5,600 | **140** | **30** |
| Acrolein | NS | NS | <4.7 | <6,800 | <5,700 | <5,600 | <6.1 | <4.6 |
| Acrylonitrile | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Benzene | 4,800 | 44,000 | <2.4 | **5,200** | <2,900 | <2,800 | **69** | **53** |
| Bromodichloromethane | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Bromoform | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Bromomethane | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Carbon disulfide | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Carbon tetrachloride | 2,400 | 22,000 | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Chlorobenzene | 100,000 | 500,000 | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Chloroethane | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Chloroform | 49,000 | 350,000 | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Chloromethane | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| cis-1,2-Dichloroethene | 100,000 | 500,000 | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| cis-1,3-Dichloropropene | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Dibromochloromethane | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Dibromomethane | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Dichlorodifluoromethane | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Ethylbenzene | 41,000 | 390,000 | <2.4 | **110,000** | **32,000** | **34,000** | **15** | <2.3 |
| Methylcyclohexane | NS | NS | <2.4 | **65,000** | **16,000** | **51,000** | **140** | **7.7** |
| Hexachlorobutadine | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Isopropylbenzene | NS | NS | <2.4 | **20,000** | **6,700** | **10,000** | **7** | <2.3 |
| Methyl acetate | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Methyl tert-butyl ether | 100,000 | 500,000 | <2.4 | <3,400 | <2,900 | <2,800 | **18** | **210** |
| Methylene chloride | 100,000 | 500,000 | **4.7** | **47,000** | **43,000** | **46,000** | **29** | **26** |
| n-Butylbenzene | NS | NS | <2.4 | **29,000** | **8,800** | **16,000** | <3.0 | <2.3 |
| 1,2,3-Trichlorobenzene | NS | NS | <2.3 | <3,400 | <2,900 | <2,800 | <2.3 | <2.3 |
| n-Propylbenzene | NS | NS | <2.4 | **63,000** | **20,000** | **28,000** | **3.1** | <2.3 |
| o-Xylene | NS | NS | <2.4 | <3,400 | <2,900 | **33,000** | **8.0** | <2.3 |
| p- & m- Xylenes | NS | NS | <4.7 | **46,000** | <5,700 | **150,000** | **32** | <4.6 |
| p-Isopropyltoluene | NS | NS | <2.4 | <3,400 | <2,900 | **4,300** | **6.0** | <2.3 |
| sec-Butylbenzene | NS | NS | <2.4 | **7,500** | **4,600** | **5,900** | <3.0 | <2.3 |
| Styrene | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| tert-Butyl alcohol (TBA) | NS | NS | **20** | <3,400 | <2,900 | <2,800 | <3.0 | **2,100** |
| tert-Butylbenzene | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Tetrachloroethene | 19,000 | 150,000 | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Toluene | 100,000 | 500,000 | <2.4 | <3,400 | <2,900 | <2,800 | **7.6** | <2.3 |
| trans-1,2-Dichloroethene | 100,000 | 500,000 | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| trans-1,3-Dichloropropene | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Trichloroethene | 21,000 | 200,000 | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Trichlorofluoromethane | NS | NS | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Vinyl chloride | 900 | 13,000 | <2.4 | <3,400 | <2,900 | <2,800 | <3.0 | <2.3 |
| Xylenes (Total) | 100,000 | 500,000 | <7.1 | **46,000** | <8,600 | **180,000** | **40** | <6.9 |

[1] Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
[2] Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
[3] Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of Commercial Soil Cleanup Values
NS = No Standard

**Table 1 continued.**

**Volatile Organic Compounds in Soil (ug/kg-dry)**
**EPA Method 8260**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | RRSCO [2] | CSCO [3] | SB-3 (12-14)<br>3/3/15 | SB-4 (0-2)<br>3/4/15 | SB-4 (8-10)<br>3/4/15 | SB-4 (12-14)<br>3/4/15 | SB-5 (0-2)<br>3/3/15 | SB-5 (8-10)<br>3/3/15 |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| 1,1,1-Trichloroethane | 100,000 | 500,000 | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| 1,1,2,2-Tetrachloroethane | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| 1,1,2-Trichloroethane | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| 1,1-Dichloroethane | 26,000 | 240,000 | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| 1,1-Dichloroethene | 100,000 | 500,000 | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| 1,2,4-Trichlorobenzene | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| 1,2,4-Trimethylbenzene | 5,200 | 19,000 | **1,800** | **8.5** | **9,000** | **140,000** | **17** | **98** |
| 1,2-Dibromo-3-chloropropane | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| 1,2-Dibromoethane | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| 1,2-Dichlorobenzene | 100,000 | 500,000 | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| 1,2-Dichloroethane | 3,100 | 30,000 | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| 1,2-Dichloropropane | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| 1,3,5-Trimethylbenzene | 5,200 | 19,000 | **170** | **4.7** | **3,000** | **44,000** | **9.1** | **28** |
| 1,3-Dichlorobenzene | 49,000 | 280,000 | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| 1,4-Dichlorobenzene | 13,000 | 130,000 | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| 1,4-Dioxane | 1,300 | 13,000 | <55 | <45 | <42 | <10,000 | <65 | <49 |
| Cyclohexane | NS | NS | **130** | **21** | **1,900** | **65,000** | **26** | **2.7** |
| 2-Butanone | 100,000 | 500,000 | <2.7 | **10** | <2.1 | <510 | <3.2 | **6.6** |
| 2-Hexanone | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| 4-Methyl-2-pentanone | NS | NS | **29** | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Acetone | 100,000 | 500,000 | <5.5 | **25** | <4.2 | <1,000 | **18** | **44** |
| Acrolein | NS | NS | <5.5 | <4.5 | <4.2 | <1,000 | <6.5 | <4.9 |
| Acrylonitrile | NS | NS | <2.7 | <2.3 | <2.1 | <1,000 | <3.2 | <2.5 |
| Benzene | 4,800 | 44,000 | **60** | <2.3 | **770** | **15,000** | **9.1** | **57** |
| Bromodichloromethane | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Bromoform | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Bromomethane | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Carbon disulfide | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Carbon tetrachloride | 2,400 | 22,000 | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Chlorobenzene | 100,000 | 500,000 | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Chloroethane | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Chloroform | 49,000 | 350,000 | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Chloromethane | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| cis-1,2-Dichloroethene | 100,000 | 500,000 | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| cis-1,3-Dichloropropene | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Dibromochloromethane | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Dibromomethane | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Dichlorodifluoromethane | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Ethylbenzene | 41,000 | 390,000 | **250** | **2.7** | **2,900** | **53,000** | **22** | **32** |
| Methylcyclohexane | NS | NS | **1,500** | **19** | **2,200** | **58,000** | **31** | <2.5 |
| Hexachlorobutadine | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Isopropylbenzene | NS | NS | **49** | <2.3 | **98** | **10,000** | **3.5** | **4.2** |
| Methyl acetate | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Methyl tert-butyl ether | 100,000 | 500,000 | **4.2** | <2.3 | **230** | **1,100** | <3.2 | **5,600** |
| Methylene chloride | 100,000 | 500,000 | **23** | **26** | **19** | **4,700** | <6.5 | <4.9 |
| n-Butylbenzene | NS | NS | <2.7 | <2.3 | <2.1 | **17,000** | <3.2 | <2.5 |
| 1,2,3-Trichlorobenzene | NS | NS | <2.3 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| n-Propylbenzene | NS | NS | **75** | <2.3 | **1,300** | **26,000** | <3.2 | **9.6** |
| o-Xylene | NS | NS | **17** | **2.4** | **2,100** | **43,000** | **3.6** | **35** |
| p- & m- Xylenes | NS | NS | **310** | **9.6** | **8,900** | **190,000** | **12** | **140** |
| p-Isopropyltoluene | NS | NS | **9.3** | <2.3 | **23** | **5,400** | **64** | **3.7** |
| sec-Butylbenzene | NS | NS | <2.7 | <2.3 | <2.1 | **6,500** | <3.2 | <2.5 |
| Styrene | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| tert-Butyl alcohol (TBA) | NS | NS | **410** | <2.3 | **230** | <510 | <3.2 | **210** |
| tert-Butylbenzene | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Tetrachloroethene | 19,000 | 150,000 | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Toluene | 100,000 | 500,000 | **5.8** | <2.3 | **100** | **8,800** | **6.2** | **21** |
| trans-1,2-Dichloroethene | 100,000 | 500,000 | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| trans-1,3-Dichloropropene | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Trichloroethene | 21,000 | 200,000 | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Trichlorofluoromethane | NS | NS | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Vinyl chloride | 900 | 13,000 | <2.7 | <2.3 | <2.1 | <510 | <3.2 | <2.5 |
| Xylenes (Total) | 100,000 | 500,000 | **330** | **12** | **11,000** | **230,000** | **76** | **170** |

[1] Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
[2] Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
[3] Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of Commercial Soil Cleanup Values
NS = No Standard

**Table 1 continued.**

**Volatile Organic Compounds in Soil (ug/kg-dry)**
**EPA Method 8260**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | RRSCO [2] | CSCO [3] | SB-5 (12-14)<br>3/3/15 | SB-6 (0-2)<br>3/3/15 | SB-6 (8-10)<br>3/3/15 | SB-6 (12-14)<br>3/3/15 | SB-7 (0-2)<br>3/15/15 | SB-7 (8-10)<br>3/12/15 |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| 1,1,1-Trichloroethane | 100,000 | 500,000 | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| 1,1,2,2-Tetrachloroethane | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| 1,1,2-Trichloroethane | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| 1,1-Dichloroethane | 26,000 | 240,000 | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| 1,1-Dichloroethene | 100,000 | 500,000 | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| 1,2,4-Trichlorobenzene | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| 1,2,4-Trimethylbenzene | 5,200 | 19,000 | **270,000** | <2.4 | **37** | **540,000** | <3.1 | **57** |
| 1,2-Dibromo-3-chloropropane | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| 1,2-Dibromoethane | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| 1,2-Dichlorobenzene | 100,000 | 500,000 | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| 1,2-Dichloroethane | 3,100 | 30,000 | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| 1,2-Dichloropropane | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| 1,3,5-Trimethylbenzene | 5,200 | 19,000 | **84,000** | <2.4 | **16** | **180,000** | <3.1 | **16** |
| 1,3-Dichlorobenzene | 49,000 | 280,000 | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| 1,4-Dichlorobenzene | 13,000 | 130,000 | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| 1,4-Dioxane | 1,300 | 13,000 | <9,600 | <48 | <52 | <54,000 | <62 | <55 |
| Cyclohexane | NS | NS | **57,000** | <2.4 | **9.7** | **66,000** | <3.1 | <2.8 |
| 2-Butanone | 100,000 | 500,000 | <480 | <2.4 | **5.4** | <2,700 | <3.1 | **5.6** |
| 2-Hexanone | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| 4-Methyl-2-pentanone | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Acetone | 100,000 | 500,000 | <960 | **7.8** | **31** | <5,400 | <6.2 | **39** |
| Acrolein | NS | NS | <960 | <4.8 | <5.2 | <5,400 | <6.2 | <5.5 |
| Acrylonitrile | NS | NS | <960 | <2.4 | <2.6 | <5,400 | <3.1 | <2.8 |
| Benzene | 4,800 | 44,000 | **18,000** | <2.4 | **53** | **7,300** | <3.1 | <2.8 |
| Bromodichloromethane | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Bromoform | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Bromomethane | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Carbon disulfide | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Carbon tetrachloride | 2,400 | 22,000 | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Chlorobenzene | 100,000 | 500,000 | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Chloroethane | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Chloroform | 49,000 | 350,000 | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Chloromethane | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| cis-1,2-Dichloroethene | 100,000 | 500,000 | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| cis-1,3-Dichloropropene | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Dibromochloromethane | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Dibromomethane | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Dichlorodifluoromethane | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Ethylbenzene | 41,000 | 390,000 | **92,000** | <2.4 | **23** | **170,000** | <3.1 | **4.2** |
| Methylcyclohexane | NS | NS | **65,000** | <2.4 | **8.4** | **110,000** | <3.1 | <2.8 |
| Hexachlorobutadine | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Isopropylbenzene | NS | NS | **15,000** | <2.4 | **3.5** | **31,000** | <3.1 | <2.8 |
| Methyl acetate | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Methyl tert-butyl ether | 100,000 | 500,000 | **4,200** | **50** | **530** | <2,700 | <3.1 | **680** |
| Methylene chloride | 100,000 | 500,000 | <960 | <4.8 | <5.2 | <2,700 | <6.2 | <5.5 |
| n-Butylbenzene | NS | NS | <480 | <2.4 | <2.6 | **29,000** | <3.1 | <2.8 |
| 1,2,3-Trichlorobenzene | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| n-Propylbenzene | NS | NS | **41,000** | <2.4 | **5.3** | **80,000** | <3.1 | **3.1** |
| o-Xylene | NS | NS | **19,000** | <2.4 | **7.3** | **160,000** | <3.1 | **15** |
| p- & m- Xylenes | NS | NS | **360,000** | <4.8 | **88** | **750,000** | <6.2 | **26** |
| p-Isopropyltoluene | NS | NS | **7,100** | <2.4 | <2.6 | **13,000** | <3.1 | <2.8 |
| sec-Butylbenzene | NS | NS | **8,400** | <2.4 | <2.6 | **16,000** | <3.1 | <2.8 |
| Styrene | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| tert-Butyl alcohol (TBA) | NS | NS | <480 | <2.4 | **32** | <2,700 | <3.1 | **85** |
| tert-Butylbenzene | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Tetrachloroethene | 19,000 | 150,000 | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Toluene | 100,000 | 500,000 | **5,400** | <2.4 | **4.0** | **17,000** | <3.1 | **5.0** |
| trans-1,2-Dichloroethene | 100,000 | 500,000 | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| trans-1,3-Dichloropropene | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Trichloroethene | 21,000 | 200,000 | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Trichlorofluoromethane | NS | NS | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Vinyl chloride | 900 | 13,000 | <480 | <2.4 | <2.6 | <2,700 | <3.1 | <2.8 |
| Xylenes (Total) | 100,000 | 500,000 | **370,000** | <7.2 | **96** | **910,000** | <9.2 | **41** |

[1] Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
[2] Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
[3] Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of Commercial Soil Cleanup Values
NS = No Standard

**Table 1 continued.**

**Volatile Organic Compounds in Soil (ug/kg-dry)**
**EPA Method 8260**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | RRSCO [2] | CSCO [3] | SB-7 (12-14)<br>3/12/15 | SB-8 (0-2)<br>3/12/15 | SB-8 (8-10)<br>3/12/15 | SB-8 (12-14)<br>3/12/15 |
|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | NS | NS | <330 | <3.6 | <2.8 | <230 |
| 1,1,1-Trichloroethane | 100,000 | 500,000 | <330 | <3.6 | <2.8 | <230 |
| 1,1,2,2-Tetrachloroethane | NS | NS | <330 | <3.6 | <2.8 | <230 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | NS | NS | <330 | <3.6 | <2.8 | <230 |
| 1,1,2-Trichloroethane | NS | NS | <330 | <3.6 | <2.8 | <230 |
| 1,1-Dichloroethane | 26,000 | 240,000 | <330 | <3.6 | <2.8 | <230 |
| 1,1-Dichloroethene | 100,000 | 500,000 | <330 | <3.6 | <2.8 | <230 |
| 1,2,4-Trichlorobenzene | NS | NS | <330 | <3.6 | <2.8 | <230 |
| 1,2,4-Trimethylbenzene | 5,200 | 19,000 | **23,000** | <3.6 | <2.8 | **11,000** |
| 1,2-Dibromo-3-chloropropane | NS | NS | <330 | <3.6 | <2.8 | <230 |
| 1,2-Dibromoethane | NS | NS | <330 | <3.6 | <2.8 | <230 |
| 1,2-Dichlorobenzene | 100,000 | 500,000 | <330 | <3.6 | <2.8 | <230 |
| 1,2-Dichloroethane | 3,100 | 30,000 | <330 | <3.6 | <2.8 | <230 |
| 1,2-Dichloropropane | NS | NS | <330 | <3.6 | <2.8 | <230 |
| 1,3,5-Trimethylbenzene | 5,200 | 19,000 | **7,200** | <3.6 | <2.8 | **3,700** |
| 1,3-Dichlorobenzene | 49,000 | 280,000 | <330 | <3.6 | <2.8 | <230 |
| 1,4-Dichlorobenzene | 13,000 | 130,000 | <330 | <3.6 | <2.8 | <230 |
| 1,4-Dioxane | 1,300 | 13,000 | <6,600 | <72 | <56 | <4,600 |
| Cyclohexane | NS | NS | **1,400** | <3.6 | <2.8 | <230 |
| 2-Butanone | 100,000 | 500,000 | <330 | <3.6 | **4.2** | <230 |
| 2-Hexanone | NS | NS | <330 | <3.6 | <2.8 | <230 |
| 4-Methyl-2-pentanone | NS | NS | <330 | <3.6 | <2.8 | <230 |
| Acetone | 100,000 | 500,000 | <660 | <7.2 | **46** | <460 |
| Acrolein | NS | NS | <660 | <7.2 | <5.6 | <460 |
| Acrylonitrile | NS | NS | <660 | <3.6 | <2.8 | <460 |
| Benzene | 4,800 | 44,000 | <330 | <3.6 | <2.8 | **260** |
| Bromodichloromethane | NS | NS | <330 | <3.6 | <2.8 | <230 |
| Bromoform | NS | NS | <330 | <3.6 | <2.8 | <230 |
| Bromomethane | NS | NS | <330 | <3.6 | <2.8 | <230 |
| Carbon disulfide | NS | NS | <330 | <3.6 | <2.8 | **360** |
| Carbon tetrachloride | 2,400 | 22,000 | <330 | <3.6 | <2.8 | <230 |
| Chlorobenzene | 100,000 | 500,000 | <330 | <3.6 | <2.8 | <230 |
| Chloroethane | NS | NS | <330 | <3.6 | <2.8 | <230 |
| Chloroform | 49,000 | 350,000 | <330 | <3.6 | <2.8 | <230 |
| Chloromethane | NS | NS | <330 | <3.6 | <2.8 | <230 |
| cis-1,2-Dichloroethene | 100,000 | 500,000 | <330 | <3.6 | <2.8 | <230 |
| cis-1,3-Dichloropropene | NS | NS | <330 | <3.6 | <2.8 | <230 |
| Dibromochloromethane | NS | NS | <330 | <3.6 | <2.8 | <230 |
| Dibromomethane | NS | NS | <330 | <3.6 | <2.8 | <230 |
| Dichlorodifluoromethane | NS | NS | <330 | <3.6 | <2.8 | <230 |
| Ethylbenzene | 41,000 | 390,000 | **6,700** | <3.6 | <2.8 | **3,500** |
| Methylcyclohexane | NS | NS | **2,100** | <3.6 | <2.8 | **1,900** |
| Hexachlorobutadine | NS | NS | <330 | <3.6 | <2.8 | <230 |
| Isopropylbenzene | NS | NS | **1,100** | <3.6 | <2.8 | **550** |
| Methyl acetate | NS | NS | <330 | <3.6 | <2.8 | <230 |
| Methyl tert-butyl ether | 100,000 | 500,000 | **4,700** | <3.6 | <2.8 | **1,100** |
| Methylene chloride | 100,000 | 500,000 | <660 | <7.2 | <5.6 | <460 |
| n-Butylbenzene | NS | NS | **1,000** | <3.6 | <2.8 | **1,000** |
| 1,2,3-Trichlorobenzene | NS | NS | <330 | <3.6 | <2.8 | <230 |
| n-Propylbenzene | NS | NS | **3,400** | <3.6 | <2.8 | **1,800** |
| o-Xylene | NS | NS | **11,000** | <3.6 | <2.8 | **5,700** |
| p- & m- Xylenes | NS | NS | **27,000** | <7.2 | <5.6 | **140,000** |
| p-Isopropyltoluene | NS | NS | **470** | <3.6 | <2.8 | <230 |
| sec-Butylbenzene | NS | NS | **580** | <3.6 | <2.8 | **330** |
| Styrene | NS | NS | <330 | <3.6 | <2.8 | <230 |
| tert-Butyl alcohol (TBA) | NS | NS | <330 | <3.6 | <2.8 | <230 |
| tert-Butylbenzene | NS | NS | <330 | <3.6 | <2.8 | <230 |
| Tetrachloroethene | 19,000 | 150,000 | <330 | <3.6 | <2.8 | <230 |
| Toluene | 100,000 | 500,000 | **2,300** | <3.6 | <2.8 | **3,400** |
| trans-1,2-Dichloroethene | 100,000 | 500,000 | <330 | <3.6 | <2.8 | <230 |
| trans-1,3-Dichloropropene | NS | NS | <330 | <3.6 | <2.8 | <230 |
| Trichloroethene | 21,000 | 200,000 | <330 | <3.6 | <2.8 | <230 |
| Trichlorofluoromethane | NS | NS | <330 | <3.6 | <2.8 | <230 |
| Vinyl chloride | 900 | 13,000 | <330 | <3.6 | <2.8 | <230 |
| Xylenes (Total) | 100,000 | 500,000 | **39,000** | <9.2 | <9.2 | **20,000** |

[1] Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
[2] Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
[3] Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of Commercial Soil Cleanup Values
NS = No Standard

**Table 3**

**Semi Volatile Organic Compounds in Soil (ug/kg-dry)**
**EPA Method 8270**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | RRSCO [2] | CSCO [3] | SB-1 (0-2)<br>3/12/15 | SB-2 (0-2)<br>3/4/15 | SB-2 (8-10)<br>3/4/15 | SB-2 (12-14)<br>3/4/15 | SB-3 (0-2)<br>3/3/15 | SB-3 (8-10)<br>3/3/15 |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 100,000 | 500,000 | **356** | **1,160** | <24.9 | **693** | <48.3 | <24.1 |
| Acenaphthylene | 100,000 | 500,000 | **143** | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Acetophenone | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Aniline | 10,000 | 500,000 | <185 | <210 | <99.5 | <106 | <193 | <96.2 |
| Anthracene | 100,000 | 500,000 | **1,250** | **1,040** | **1,590** | **49.4** | <48.3 | <24.1 |
| Atrazine | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Benzaldehyde | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Benzidine | NS | NS | <185 | <210 | <99.5 | <106 | <193 | <96.2 |
| Benzo(a)anthracene | 1,000 | 5,600 | **2,690** | **358** | **113** | **49.7** | **235** | <24.1 |
| Benzo(a)pyrene | 1,000 | 1,000 | **886** | **166** | <24.9 | <26.5 | **101** | <24.1 |
| Benzo(b)fluoranthene | 1,000 | 5,600 | **813** | **166** | <24.9 | <26.5 | **80.2** | <24.1 |
| Benzo(g,h,i)perylene | 100,000 | 500,000 | **909** | **71** | <24.9 | <26.5 | **109** | <24.1 |
| Benzoic acid | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Benzo(k)fluoranthene | 3,900 | 56,000 | **1,150** | **191** | <24.9 | <26.5 | **123** | <24.1 |
| Benzyl alcohol | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Benzyl butyl phthalate | NS | NS | **419** | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 1,1'-Biphenyl | NS | NS | <46.3 | **1,310** | <24.9 | **1,360** | <48.3 | <24.1 |
| 4-Bromophenyl-phenylether | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Caprolactam | NS | NS | <92.5 | <105 | <49.7 | <52.8 | <96.4 | <48.1 |
| Carbazole | NS | NS | **423** | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 4-Chloro-3-methylphenol | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 4-Chloroaniline | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Bis(2-chloroethoxy)methane | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Bis(2-chloroethyl)ether | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Bis(2-chloroisopropyl)ether | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 2-Chloronaphthalene | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 2-Chlorophenol | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 4-Chlorophenyl phenyl ether | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Chrysene | 3,900 | 56,000 | **2,500** | **443** | **224** | **90.7** | **267** | <24.1 |
| Dibenzo(a,h)anthracene | 330 | 560 | **511** | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Dibenzofuran | NS | NS | **387** | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Di-n-butyl phthalate | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 1,2-Dichlorobenzene | 100,000 | 500,000 | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 1,3-Dichlorobenzene | 49,000 | 280,000 | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 1,4-Dichlorobenzene | 13,000 | 130,000 | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 3,3´-Dichlorobenzidine | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 2,4-Dichlorophenol | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Diethyl phthalate | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 2,4-Dimethylphenol | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Dimethyl phthalate | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 4,6-Dinitro-2-methylphenol | NS | NS | <92.5 | <105 | <49.7 | <52.8 | <96.4 | <48.1 |
| 2,4-Dinitrophenol | NS | NS | <92.5 | <105 | <49.7 | <52.8 | <96.4 | <48.1 |
| 2,4-Dinitrotoluene | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 2,6-Dinitrotoluene | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Di-n-octyl phthalate | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 1,2-Diphenylhydrazine | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Bis(2-ethylhexyl)phthalate | NS | NS | **390** | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Fluoranthene | 100,000 | 500,000 | **9,030** | **1,090** | **726** | **199** | **447** | <24.1 |
| Fluorene | 100,000 | 500,000 | **710** | **2,970** | **5,680** | **1,300** | <48.3 | <24.1 |
| Hexachlorobenzene | 12 | 60 | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Hexachlorobutadiene | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Hexachlorocyclopentadiene | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Hexachloroethane | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Indeno(1,2,3-c,d)pyrene | 500 | 5,600 | **1,020** | <52.6 | <24.9 | <26.5 | **94.8** | <24.1 |
| Isophorone | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 2-Methylnaphthalene | NS | NS | <46.3 | **112,000** | **35,300** | **24,300** | <48.3 | <24.1 |
| 2-Methylphenol | 100,000 | 500,000 | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 3- & 4-Methylphenols | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Naphthalene | 100,000 | 500,000 | **93.9** | **118,000** | **15,700** | **11,900** | <48.3 | <24.1 |
| 4-Nitroaniline | NS | NS | <92.5 | <105 | <49.7 | <52.8 | <96.4 | <48.1 |
| 2-Nitroaniline | NS | NS | <92.5 | <105 | <49.7 | <52.8 | <96.4 | <48.1 |
| 3-Nitroaniline | NS | NS | <92.5 | <105 | <49.7 | <52.8 | <96.4 | <48.1 |
| Nitrobenzene | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 2-Nitrophenol | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 4-Nitrophenol | NS | NS | <92.5 | <105 | <49.7 | <52.8 | <96.4 | <48.1 |
| N-Nitrosodi-n-propylamine | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| N-Nitrosodiumethylamine | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| N-Nitrosodiphenylamine | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Pentachlorophenol | 6,700 | 6,700 | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Phenanthrene | 100,000 | 500,000 | **7,030** | **7,970** | **10,800** | **3,210** | **214** | <24.1 |
| Phenol | 100,000 | 500,000 | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| Pyrene | 100,000 | 500,000 | **7,200** | **1,000** | **1,070** | **314** | **616** | <24.1 |
| 1,2,4,5-Tetrachlorobenzene | NS | NS | <92.5 | <105 | <49.7 | <52.8 | <96.4 | <48.1 |
| 2,3,4,6-Tetrachlorophenol | NS | NS | <92.5 | <105 | <49.7 | <52.8 | <96.4 | <48.1 |
| 1,2,4-Tricholobenzene | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 2,4,6-Trichlorophenol | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |
| 2,4,5-Trichlorophenol | NS | NS | <46.3 | <52.6 | <24.9 | <26.5 | <48.3 | <24.1 |

[1] Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
[2] Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
[3] Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of Commercial Soil Cleanup Values
NS = No Standard

**Table 3 continued.**

**Semi Volatile Organic Compounds in Soil (ug/kg-dry)**
**EPA Method 8270**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | RRSCO [2] | CSCO [3] | SB-3 (12-14)<br>3/3/15 | SB-4 (0-2)<br>3/4/15 | SB-4 (8-10)<br>3/4/15 | SB-4 (12-14)<br>3/4/15 | SB-5 (0-2)<br>3/3/15 | SB-5 (8-10)<br>3/3/15 |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 100,000 | 500,000 | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Acenaphthylene | 100,000 | 500,000 | <28.2 | <124 | <25.1 | <24.1 | **448** | <22.8 |
| Acetophenone | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Aniline | 10,000 | 500,000 | <113 | <494 | <100 | <96.3 | <183 | <90.9 |
| Anthracene | 100,000 | 500,000 | <28.2 | <124 | <25.1 | **1,180** | **156** | <22.8 |
| Atrazine | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Benzaldehyde | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Benzidine | NS | NS | <113 | <494 | <100 | <96.3 | <183 | <90.9 |
| Benzo(a)anthracene | 1,000 | 5,600 | <28.2 | <124 | <25.1 | **73.8** | **2,750** | <22.8 |
| Benzo(a)pyrene | 1,000 | 1,000 | <28.2 | <124 | <25.1 | <24.1 | **1,210** | <22.8 |
| Benzo(b)fluoranthene | 1,000 | 5,600 | <28.2 | <124 | <25.1 | <24.1 | **1,150** | <22.8 |
| Benzo(g,h,i)perylene | 100,000 | 500,000 | <28.2 | <124 | <25.1 | <24.1 | **816** | <22.8 |
| Benzoic acid | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Benzo(k)fluoranthene | 3,900 | 56,000 | <28.2 | <124 | <25.1 | <24.1 | **1,460** | <22.8 |
| Benzyl alcohol | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Benzyl butyl phthalate | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 1,1'-Biphenyl | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 4-Bromophenyl-phenylether | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Caprolactam | NS | NS | <56.2 | <247 | <50.0 | <48.1 | <91.2 | <45.4 |
| Carbazole | NS | NS | <28.2 | <124 | <25.1 | <24.1 | **62.0** | <22.8 |
| 4-Chloro-3-methylphenol | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 4-Chloroaniline | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Bis(2-chloroethoxy)methane | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Bis(2-chloroethyl)ether | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Bis(2-chloroisopropyl)ether | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 2-Chloronaphthalene | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 2-Chlorophenol | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 4-Chlorophenyl phenyl ether | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Chrysene | 3,900 | 56,000 | <28.2 | <124 | <25.1 | **120** | **2,660** | <22.8 |
| Dibenzo(a,h)anthracene | 330 | 560 | <28.2 | <124 | <25.1 | <24.1 | **292** | <22.8 |
| Dibenzofuran | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Di-n-butyl phthalate | NS | NS | <28.2 | <124 | <25.1 | <24.1 | **126** | <22.8 |
| 1,2-Dichlorobenzene | 100,000 | 500,000 | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 1,3-Dichlorobenzene | 49,000 | 280,000 | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 1,4-Dichlorobenzene | 13,000 | 130,000 | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 3,3´-Dichlorobenzidine | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 2,4-Dichlorophenol | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Diethyl phthalate | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 2,4-Dimethylphenol | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Dimethyl phthalate | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 4,6-Dinitro-2-methylphenol | NS | NS | <56.2 | <247 | <50.0 | <48.1 | <91.2 | <45.4 |
| 2,4-Dinitrophenol | NS | NS | <56.2 | <247 | <50.0 | <48.1 | <91.2 | <45.4 |
| 2,4-Dinitrotoluene | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 2,6-Dinitrotoluene | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Di-n-octyl phthalate | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 1,2-Diphenylhydrazine | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Bis(2-ethylhexyl)phthalate | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Fluoranthene | 100,000 | 500,000 | <28.2 | <124 | **38.8** | **515** | **7,700** | <22.8 |
| Fluorene | 100,000 | 500,000 | <28.2 | <124 | <25.1 | <24.1 | **54.7** | <22.8 |
| Hexachlorobenzene | 12 | 60 | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Hexachlorobutadiene | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Hexachlorocyclopentadiene | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Hexachloroethane | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Indeno(1,2,3-c,d)pyrene | 500 | 5,600 | <28.2 | <124 | <25.1 | <24.1 | **852** | <22.8 |
| Isophorone | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 2-Methylnaphthalene | NS | NS | **53.5** | <124 | **305** | **38,600** | **122** | 53.5 |
| 2-Methylphenol | 100,000 | 500,000 | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 3- & 4-Methylphenols | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Naphthalene | 100,000 | 500,000 | <28.2 | <124 | **331** | **21,800** | **72.9** | <22.8 |
| 4-Nitroaniline | NS | NS | <56.2 | <247 | <50.0 | <48.1 | <91.2 | <45.4 |
| 2-Nitroaniline | NS | NS | <56.2 | <247 | <50.0 | <48.1 | <91.2 | <45.4 |
| 3-Nitroaniline | NS | NS | <56.2 | <247 | <50.0 | <48.1 | <91.2 | <45.4 |
| Nitrobenzene | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 2-Nitrophenol | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 4-Nitrophenol | NS | NS | <56.2 | <247 | <50.0 | <48.1 | <91.2 | <45.4 |
| N-Nitrosodi-n-propylamine | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| N-Nitrosodiumethylamine | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| N-Nitrosodiphenylamine | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Pentachlorophenol | 6,700 | 6,700 | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Phenanthrene | 100,000 | 500,000 | <28.2 | <124 | **66.7** | **8,630** | **510** | <22.8 |
| Phenol | 100,000 | 500,000 | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| Pyrene | 100,000 | 500,000 | <28.2 | <124 | **29.6** | **663** | **8,670** | <22.8 |
| 1,2,4,5-Tetrachlorobenzene | NS | NS | <56.2 | <247 | <50.0 | <48.1 | <91.2 | <45.4 |
| 2,3,4,6-Tetrachlorophenol | NS | NS | <56.2 | <247 | <50.0 | <48.1 | <91.2 | <45.4 |
| 1,2,4-Tricholobenzene | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 2,4,6-Trichlorophenol | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |
| 2,4,5-Trichlorophenol | NS | NS | <28.2 | <124 | <25.1 | <24.1 | <45.7 | <22.8 |

[1] Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
[2] Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
[3] Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of Commercial Soil Cleanup Values
NS = No Standard

**Table 3 continued.**

**Semi Volatile Organic Compounds in Soil (ug/kg-dry)**
**EPA Method 8270**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | RRSCO [2] | CSCO [3] | SB-5 (12-14)<br>3/3/15 | SB-6 (0-2)<br>3/3/15 | SB-6 (8-10)<br>3/3/15 | SB-6 (12-14)<br>3/3/15 | SB-7 (0-2)<br>3/15/15 | SB-7 (8-10)<br>3/12/15 |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 100,000 | 500,000 | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Acenaphthylene | 100,000 | 500,000 | <22.9 | **238** | <24.4 | <22.6 | **169** | <21.4 |
| Acetophenone | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Aniline | 10,000 | 500,000 | <91.4 | <190 | <97.4 | <90.4 | <182 | <85.4 |
| Anthracene | 100,000 | 500,000 | **1,120** | **108** | <24.4 | **1,200** | **122** | <21.4 |
| Atrazine | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Benzaldehyde | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Benzidine | NS | NS | <91.4 | <190 | <97.4 | <90.4 | <182 | <85.4 |
| Benzo(a)anthracene | 1,000 | 5,600 | **78.1** | **523** | <24.4 | **88.4** | **1,270** | <21.4 |
| Benzo(a)pyrene | 1,000 | 1,000 | <22.9 | **366** | <24.4 | <22.6 | **1,140** | <21.4 |
| Benzo(b)fluoranthene | 1,000 | 5,600 | <22.9 | **446** | <24.4 | <22.6 | **835** | <21.4 |
| Benzo(g,h,i)perylene | 100,000 | 500,000 | <22.9 | **927** | <24.4 | <22.6 | **687** | <21.4 |
| Benzoic acid | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Benzo(k)fluoranthene | 3,900 | 56,000 | <22.9 | **271** | <24.4 | <22.6 | **1,240** | <21.4 |
| Benzyl alcohol | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Benzyl butyl phthalate | NS | NS | <22.9 | <47.5 | **32.3** | <22.6 | <45.5 | <21.4 |
| 1,1'-Biphenyl | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 4-Bromophenyl-phenylether | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Caprolactam | NS | NS | <45.6 | <94.7 | <48.6 | <45.2 | <90.7 | <42.7 |
| Carbazole | NS | NS | <22.9 | **53.8** | <24.4 | <22.6 | **60.2** | <21.4 |
| 4-Chloro-3-methylphenol | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 4-Chloroaniline | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Bis(2-chloroethoxy)methane | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Bis(2-chloroethyl)ether | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Bis(2-chloroisopropyl)ether | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 2-Chloronaphthalene | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 2-Chlorophenol | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 4-Chlorophenyl phenyl ether | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Chrysene | 3,900 | 56,000 | **140** | **693** | <24.4 | **158** | **1,230** | <21.4 |
| Dibenzo(a,h)anthracene | 330 | 560 | <22.9 | **294** | <24.4 | <22.6 | **212** | <21.4 |
| Dibenzofuran | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Di-n-butyl phthalate | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 1,2-Dichlorobenzene | 100,000 | 500,000 | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 1,3-Dichlorobenzene | 49,000 | 280,000 | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 1,4-Dichlorobenzene | 13,000 | 130,000 | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 3,3´-Dichlorobenzidine | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 2,4-Dichlorophenol | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Diethyl phthalate | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 2,4-Dimethylphenol | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Dimethyl phthalate | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 4,6-Dinitro-2-methylphenol | NS | NS | <45.6 | <94.7 | <48.6 | <45.2 | <90.7 | <42.7 |
| 2,4-Dinitrophenol | NS | NS | <45.6 | <94.7 | <48.6 | <45.2 | <90.7 | <42.7 |
| 2,4-Dinitrotoluene | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 2,6-Dinitrotoluene | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Di-n-octyl phthalate | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 1,2-Diphenylhydrazine | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Bis(2-ethylhexyl)phthalate | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Fluoranthene | 100,000 | 500,000 | **666** | **570** | <24.4 | **442** | **1,910** | <21.4 |
| Fluorene | 100,000 | 500,000 | **4,380** | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Hexachlorobenzene | 12 | 60 | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Hexachlorobutadiene | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Hexachlorocyclopentadiene | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Hexachloroethane | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Indeno(1,2,3-c,d)pyrene | 500 | 5,600 | <22.9 | **661** | <24.4 | <22.6 | **678** | <21.4 |
| Isophorone | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 2-Methylnaphthalene | NS | NS | **46,500** | **56.0** | <24.4 | **25,400** | <45.5 | 53.5 |
| 2-Methylphenol | 100,000 | 500,000 | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 3- & 4-Methylphenols | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | **134** |
| Naphthalene | 100,000 | 500,000 | **27,400** | **55.3** | <24.4 | **26,300** | <45.5 | <21.4 |
| 4-Nitroaniline | NS | NS | <45.6 | <94.7 | <48.6 | <45.2 | <90.7 | <42.7 |
| 2-Nitroaniline | NS | NS | <45.6 | <94.7 | <48.6 | <45.2 | <90.7 | <42.7 |
| 3-Nitroaniline | NS | NS | <45.6 | <94.7 | <48.6 | <45.2 | <90.7 | <42.7 |
| Nitrobenzene | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 2-Nitrophenol | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 4-Nitrophenol | NS | NS | <45.6 | <94.7 | <48.6 | <45.2 | <90.7 | <42.7 |
| N-Nitrosodi-n-propylamine | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| N-Nitrosodiumethylamine | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| N-Nitrosodiphenylamine | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Pentachlorophenol | 6,700 | 6,700 | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Phenanthrene | 100,000 | 500,000 | **9,730** | **410** | <24.4 | **10,600** | **562** | <21.4 |
| Phenol | 100,000 | 500,000 | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| Pyrene | 100,000 | 500,000 | **811** | **1,780** | <24.4 | **557** | **1,900** | <21.4 |
| 1,2,4,5-Tetrachlorobenzene | NS | NS | <45.6 | <94.7 | <48.6 | <45.2 | <90.7 | <42.7 |
| 2,3,4,6-Tetrachlorophenol | NS | NS | <45.6 | <94.7 | <48.6 | <45.2 | <90.7 | <42.7 |
| 1,2,4-Tricholobenzene | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 2,4,6-Trichlorophenol | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |
| 2,4,5-Trichlorophenol | NS | NS | <22.9 | <47.5 | <24.4 | <22.6 | <45.5 | <21.4 |

[1] Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
[2] Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
[3] Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of Commercial Soil Cleanup Values
NS = No Standard

**Table 3 continued.**

**Semi Volatile Organic Compounds in Soil (ug/kg-dry)**
**EPA Method 8270**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | RRSCO [2] | CSCO [3] | SB-7 (12-14)<br>3/12/15 | SB-8 (0-2)<br>3/12/15 | SB-8 (8-10)<br>3/12/15 | SB-8 (12-14)<br>3/12/15 |
|---|---|---|---|---|---|---|
| Acenaphthene | 100,000 | 500,000 | <23.6 | <47.2 | <22.2 | <214 |
| Acenaphthylene | 100,000 | 500,000 | **32.0** | <47.2 | <22.2 | <214 |
| Acetophenone | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Aniline | 10,000 | 500,000 | <94.5 | <189 | <88.8 | <854 |
| Anthracene | 100,000 | 500,000 | **89.0** | **72.3** | <22.2 | **460** |
| Atrazine | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Benzaldehyde | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Benzidine | NS | NS | <94.5 | <189 | <88.8 | <854 |
| Benzo(a)anthracene | 1,000 | 5,600 | <23.6 | **277** | <22.2 | <214 |
| Benzo(a)pyrene | 1,000 | 1,000 | <23.6 | **172** | <22.2 | <214 |
| Benzo(b)fluoranthene | 1,000 | 5,600 | <23.6 | **161** | <22.2 | <214 |
| Benzo(g,h,i)perylene | 100,000 | 500,000 | <23.6 | **122** | <22.2 | <214 |
| Benzoic acid | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Benzo(k)fluoranthene | 3,900 | 56,000 | <23.6 | **187** | <22.2 | <214 |
| Benzyl alcohol | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Benzyl butyl phthalate | NS | NS | <23.6 | <47.2 | **32.3** | <214 |
| 1,1'-Biphenyl | NS | NS | <23.6 | <47.2 | <22.2 | **1,550** |
| 4-Bromophenyl-phenylether | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Caprolactam | NS | NS | <47.2 | <94.2 | <44.3 | <427 |
| Carbazole | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| 4-Chloro-3-methylphenol | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| 4-Chloroaniline | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Bis(2-chloroethoxy)methane | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Bis(2-chloroethyl)ether | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Bis(2-chloroisopropyl)ether | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| 2-Chloronaphthalene | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| 2-Chlorophenol | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| 4-Chlorophenyl phenyl ether | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Chrysene | 3,900 | 56,000 | <23.6 | **321** | <22.2 | <214 |
| Dibenzo(a,h)anthracene | 330 | 560 | <23.6 | **58.0** | <22.2 | <214 |
| Dibenzofuran | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Di-n-butyl phthalate | NS | NS | <23.6 | **110** | <22.2 | <214 |
| 1,2-Dichlorobenzene | 100,000 | 500,000 | <23.6 | <47.2 | <22.2 | <214 |
| 1,3-Dichlorobenzene | 49,000 | 280,000 | <23.6 | <47.2 | <22.2 | <214 |
| 1,4-Dichlorobenzene | 13,000 | 130,000 | <23.6 | <47.2 | <22.2 | <214 |
| 3,3´-Dichlorobenzidine | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| 2,4-Dichlorophenol | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Diethyl phthalate | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| 2,4-Dimethylphenol | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Dimethyl phthalate | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| 4,6-Dinitro-2-methylphenol | NS | NS | <47.2 | <94.2 | <44.3 | <427 |
| 2,4-Dinitrophenol | NS | NS | <47.2 | <94.2 | <44.3 | <427 |
| 2,4-Dinitrotoluene | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| 2,6-Dinitrotoluene | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Di-n-octyl phthalate | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| 1,2-Diphenylhydrazine | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Bis(2-ethylhexyl)phthalate | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Fluoranthene | 100,000 | 500,000 | **54.7** | **605** | <22.2 | **239** |
| Fluorene | 100,000 | 500,000 | **236** | <47.2 | <22.2 | **1,630** |
| Hexachlorobenzene | 12 | 60 | <23.6 | <47.2 | <22.2 | <214 |
| Hexachlorobutadiene | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Hexachlorocyclopentadiene | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Hexachloroethane | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Indeno(1,2,3-c,d)pyrene | 500 | 5,600 | <23.6 | **116** | <22.2 | <214 |
| Isophorone | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| 2-Methylnaphthalene | NS | NS | **1,720** | <47.2 | <22.2 | **15,800** |
| 2-Methylphenol | 100,000 | 500,000 | <23.6 | <47.2 | <22.2 | <214 |
| 3- & 4-Methylphenols | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Naphthalene | 100,000 | 500,000 | **779** | <47.2 | <22.2 | **9,050** |
| 4-Nitroaniline | NS | NS | <47.2 | <94.2 | <44.3 | <427 |
| 2-Nitroaniline | NS | NS | <47.2 | <94.2 | <44.3 | <427 |
| 3-Nitroaniline | NS | NS | <47.2 | <94.2 | <44.3 | <427 |
| Nitrobenzene | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| 2-Nitrophenol | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| 4-Nitrophenol | NS | NS | <47.2 | <94.2 | <44.3 | <427 |
| N-Nitrosodi-n-propylamine | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| N-Nitrosodiumethylamine | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| N-Nitrosodiphenylamine | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| Pentachlorophenol | 6,700 | 6,700 | <23.6 | <47.2 | <22.2 | <214 |
| Phenanthrene | 100,000 | 500,000 | **596** | **379** | <22.2 | **3,570** |
| Phenol | 100,000 | 500,000 | <23.6 | <47.2 | <22.2 | <214 |
| Pyrene | 100,000 | 500,000 | **100** | **647** | <22.2 | **471** |
| 1,2,4,5-Tetrachlorobenzene | NS | NS | <47.2 | <94.2 | <44.3 | <427 |
| 2,3,4,6-Tetrachlorophenol | NS | NS | <47.2 | <94.2 | <44.3 | <427 |
| 1,2,4-Tricholobenzene | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| 2,4,6-Trichlorophenol | NS | NS | <23.6 | <47.2 | <22.2 | <214 |
| 2,4,5-Trichlorophenol | NS | NS | <23.6 | <47.2 | <22.2 | <214 |

[1] Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
[2] Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
[3] Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of Commercial Soil Cleanup Values
NS = No Standard

**Table 4**

**PCBs and Pesticides in Soil (ug/kg-dry)**
**EPA Method 8081/8082**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | RRSCO [2] | CSCO [3] | SB-1 (0-2)<br>3/12/15 | SB-2 (0-2)<br>3/4/15 | SB-2 (8-10)<br>3/4/15 | SB-2 (12-14)<br>3/4/15 | SB-3 (0-2)<br>3/3/15 | SB-3 (8-10)<br>3/3/15 |
|---|---|---|---|---|---|---|---|---|
| Aldrin | 19 | 680 | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| alpha-BHC | 97 | 3,400 | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| beta-BHC | 72 | 3,000 | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| delta-BHC | 100,000 | 500,000 | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| gamma-BHC | 280 | 9,200 | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| gamma-Chlordane | NS | NS | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| alpha-Chlordane | NS | NS | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| Chlordane, total | NS | NS | <7.32 | <8.31 | <7.86 | <8.35 | <7.63 | <7.61 |
| 4,4´-DDD | 2,600 | 92,000 | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| 4,4´-DDE | 1,800 | 62,000 | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| 4,4´-DDT | 1,700 | 47,000 | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| Dieldrin | 39 | 1,400 | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| Endosulfan I | 4,800 | 200,000 | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| Endosulfan II | 4,800 | 200,000 | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| Endosulfan sulfate | 4,800 | 200,000 | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| Endrin | 2,200 | 89,000 | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| Endrin aldehyde | NS | NS | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| Endrin ketone | NS | NS | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| Heptachlor | 420 | 15,000 | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| Heptachlor epoxide | NS | NS | <1.83 | <2.08 | <1.97 | <2.09 | <1.91 | <1.90 |
| Methoxychlor | NS | NS | <9.15 | <10.4 | <9.83 | <10.4 | <9.54 | <9.51 |
| Toxaphene | NS | NS | <92.6 | <105 | <99.5 | <106 | <96.6 | <96.2 |
| Aroclor 1016 | 1,000 | 1,000 | <0.0185 | <0.0210 | <0.0198 | <0.0211 | <0.0193 | <0.0192 |
| Aroclor 1221 | 1,000 | 1,000 | <0.0185 | <0.0210 | <0.0198 | <0.0211 | <0.0193 | <0.0192 |
| Aroclor 1232 | 1,000 | 1,000 | <0.0185 | <0.0210 | <0.0198 | <0.0211 | <0.0193 | <0.0192 |
| Aroclor 1242 | 1,000 | 1,000 | <0.0185 | <0.0210 | <0.0198 | <0.0211 | <0.0193 | <0.0192 |
| Aroclor 1248 | 1,000 | 1,000 | <0.0185 | <0.0210 | <0.0198 | <0.0211 | <0.0193 | <0.0192 |
| Aroclor 1254 | 1,000 | 1,000 | <0.0185 | <0.0210 | <0.0198 | <0.0211 | <0.0193 | <0.0192 |
| Aroclor 1260 | 1,000 | 1,000 | **0.0680** | <0.0210 | <0.0198 | <0.0211 | <0.0193 | <0.0192 |

[1] Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
[2] Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
[3] Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of regulatory standard
NS = No Standard

**Table 4 continued.**

**PCBs and Pesticides in Soil (ug/kg-dry)**
**EPA Method 8081/8082**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | RRSCO [2] | CSCO [3] | SB-3 (12-14)<br>3/3/15 | SB-4 (0-2)<br>3/4/15 | SB-4 (8-10)<br>3/4/15 | SB-4 (12-14)<br>3/4/15 | SB-5 (0-2)<br>3/3/15 | SB-5 (8-10)<br>3/3/15 |
|---|---|---|---|---|---|---|---|---|
| Aldrin | 19 | 680 | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| alpha-BHC | 97 | 3,400 | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| beta-BHC | 72 | 3,000 | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| delta-BHC | 100,000 | 500,000 | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| gamma-BHC | 280 | 9,200 | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| gamma-Chlordane | NS | NS | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| alpha-Chlordane | NS | NS | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| Chlordane, total | NS | NS | <8.90 | <7.81 | <7.91 | <7.61 | <7.22 | <7.19 |
| 4,4´-DDD | 2,600 | 92,000 | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| 4,4´-DDE | 1,800 | 62,000 | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| 4,4´-DDT | 1,700 | 47,000 | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| Dieldrin | 39 | 1,400 | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| Endosulfan I | 4,800 | 200,000 | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| Endosulfan II | 4,800 | 200,000 | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| Endosulfan sulfate | 4,800 | 200,000 | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| Endrin | 2,200 | 89,000 | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| Endrin aldehyde | NS | NS | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| Endrin ketone | NS | NS | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| Heptachlor | 420 | 15,000 | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| Heptachlor epoxide | NS | NS | <2.22 | <1.95 | <1.98 | <1.90 | <1.80 | <1.80 |
| Methoxychlor | NS | NS | <11.1 | <9.77 | <9.89 | <9.51 | <9.02 | <8.98 |
| Toxaphene | NS | NS | <113 | <98.9 | <100 | <96.3 | <91.3 | <90.9 |
| Aroclor 1016 | 1,000 | 1,000 | <0.0225 | <0.0197 | <0.0200 | <0.0192 | <0.0182 | <0.0181 |
| Aroclor 1221 | 1,000 | 1,000 | <0.0225 | <0.0197 | <0.0200 | <0.0192 | <0.0182 | <0.0181 |
| Aroclor 1232 | 1,000 | 1,000 | <0.0225 | <0.0197 | <0.0200 | <0.0192 | <0.0182 | <0.0181 |
| Aroclor 1242 | 1,000 | 1,000 | <0.0225 | <0.0197 | <0.0200 | <0.0192 | <0.0182 | <0.0181 |
| Aroclor 1248 | 1,000 | 1,000 | <0.0225 | <0.0197 | <0.0200 | <0.0192 | <0.0182 | <0.0181 |
| Aroclor 1254 | 1,000 | 1,000 | <0.0225 | <0.0197 | <0.0200 | <0.0192 | <0.0182 | <0.0181 |
| Aroclor 1260 | 1,000 | 1,000 | <0.0225 | <0.0197 | <0.0200 | <0.0192 | **0.0713** | <0.0181 |

[1] Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
[2] Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
[3] Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of regulatory standard
NS = No Standard

**Table 4 continued.**

**PCBs and Pesticides in Soil (ug/kg-dry)**
**EPA Method 8081/8082**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | RRSCO [2] | CSCO [3] | SB-5 (12-14)<br>3/3/15 | SB-6 (0-2)<br>3/3/15 | SB-6 (8-10)<br>3/3/15 | SB-6 (12-14)<br>3/3/15 | SB-7 (0-2)<br>3/15/15 | SB-7 (8-10)<br>3/12/15 |
|---|---|---|---|---|---|---|---|---|
| Aldrin | 19 | 680 | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| alpha-BHC | 97 | 3,400 | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| beta-BHC | 72 | 3,000 | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| delta-BHC | 100,000 | 500,000 | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| gamma-BHC | 280 | 9,200 | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| gamma-Chlordane | NS | NS | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| alpha-Chlordane | NS | NS | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| Chlordane, total | NS | NS | <7.22 | <7.49 | <7.70 | <7.15 | <7.18 | <6.75 |
| 4,4´-DDD | 2,600 | 92,000 | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| 4,4´-DDE | 1,800 | 62,000 | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| 4,4´-DDT | 1,700 | 47,000 | <1.81 | **17.2** | <1.92 | <1.79 | <1.79 | <1.69 |
| Dieldrin | 39 | 1,400 | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| Endosulfan I | 4,800 | 200,000 | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| Endosulfan II | 4,800 | 200,000 | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| Endosulfan sulfate | 4,800 | 200,000 | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| Endrin | 2,200 | 89,000 | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| Endrin aldehyde | NS | NS | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| Endrin ketone | NS | NS | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| Heptachlor | 420 | 15,000 | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| Heptachlor epoxide | NS | NS | <1.81 | <1.87 | <1.92 | <1.79 | <1.79 | <1.69 |
| Methoxychlor | NS | NS | <9.03 | <9.37 | <9.62 | <8.94 | <8.97 | <8.44 |
| Toxaphene | NS | NS | <91.4 | <94.8 | <97.4 | <90.4 | <90.8 | <85.4 |
| Aroclor 1016 | 1,000 | 1,000 | <0.0182 | <0.0189 | <0.0194 | <0.0180 | <0.0181 | <0.0170 |
| Aroclor 1221 | 1,000 | 1,000 | <0.0182 | <0.0189 | <0.0194 | <0.0180 | <0.0181 | <0.0170 |
| Aroclor 1232 | 1,000 | 1,000 | <0.0182 | <0.0189 | <0.0194 | <0.0180 | <0.0181 | <0.0170 |
| Aroclor 1242 | 1,000 | 1,000 | <0.0182 | <0.0189 | <0.0194 | <0.0180 | <0.0181 | <0.0170 |
| Aroclor 1248 | 1,000 | 1,000 | <0.0182 | <0.0189 | <0.0194 | <0.0180 | <0.0181 | <0.0170 |
| Aroclor 1254 | 1,000 | 1,000 | <0.0182 | <0.0189 | <0.0194 | <0.0180 | <0.0181 | <0.0170 |
| Aroclor 1260 | 1,000 | 1,000 | <0.0182 | <0.0189 | <0.0194 | <0.0180 | <0.0181 | <0.0170 |

[1] Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
[2] Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
[3] Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of regulatory standard
NS = No Standard

**Table 4 continued.**

**PCBs and Pesticides in Soil (ug/kg-dry)**
**EPA Method 8081/8082**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | RRSCO [2] | CSCO [3] | SB-7 (12-14)<br>3/12/15 | SB-8 (0-2)<br>3/12/15 | SB-8 (8-10)<br>3/12/15 | SB-8 (12-14)<br>3/12/15 |
|---|---|---|---|---|---|---|
| Aldrin | 19 | 680 | <1.87 | <1.86 | <1.75 | <1.69 |
| alpha-BHC | 97 | 3,400 | <1.87 | <1.86 | <1.75 | <1.69 |
| beta-BHC | 72 | 3,000 | <1.87 | <1.86 | <1.75 | <1.69 |
| delta-BHC | 100,000 | 500,000 | <1.87 | <1.86 | <1.75 | <1.69 |
| gamma-BHC | 280 | 9,200 | <1.87 | <1.86 | <1.75 | <1.69 |
| gamma-Chlordane | NS | NS | <1.87 | <1.86 | <1.75 | <1.69 |
| alpha-Chlordane | NS | NS | <1.87 | <1.86 | <1.75 | <1.69 |
| Chlordane, total | NS | NS | <7.47 | <7.45 | <7.02 | <6.75 |
| 4,4´-DDD | 2,600 | 92,000 | <1.87 | <1.86 | <1.75 | <1.69 |
| 4,4´-DDE | 1,800 | 62,000 | <1.87 | <1.86 | <1.75 | <1.69 |
| 4,4´-DDT | 1,700 | 47,000 | <1.87 | <1.86 | <1.75 | <1.69 |
| Dieldrin | 39 | 1,400 | <1.87 | <1.86 | <1.75 | <1.69 |
| Endosulfan I | 4,800 | 200,000 | <1.87 | <1.86 | <1.75 | <1.69 |
| Endosulfan II | 4,800 | 200,000 | <1.87 | <1.86 | <1.75 | <1.69 |
| Endosulfan sulfate | 4,800 | 200,000 | <1.87 | <1.86 | <1.75 | <1.69 |
| Endrin | 2,200 | 89,000 | <1.87 | <1.86 | <1.75 | <1.69 |
| Endrin aldehyde | NS | NS | <1.87 | <1.86 | <1.75 | <1.69 |
| Endrin ketone | NS | NS | <1.87 | <1.86 | <1.75 | <1.69 |
| Heptachlor | 420 | 15,000 | <1.87 | <1.86 | <1.75 | <1.69 |
| Heptachlor epoxide | NS | NS | <1.87 | <1.86 | <1.75 | <1.69 |
| Methoxychlor | NS | NS | <9.33 | <9.32 | <8.77 | <8.44 |
| Toxaphene | NS | NS | <94.5 | <94.3 | <88.8 | <85.4 |
| Aroclor 1016 | 1,000 | 1,000 | <0.0188 | <0.0188 | <0.0177 | <0.0170 |
| Aroclor 1221 | 1,000 | 1,000 | <0.0188 | <0.0188 | <0.0177 | <0.0170 |
| Aroclor 1232 | 1,000 | 1,000 | <0.0188 | <0.0188 | <0.0177 | <0.0170 |
| Aroclor 1242 | 1,000 | 1,000 | <0.0188 | <0.0188 | <0.0177 | <0.0170 |
| Aroclor 1248 | 1,000 | 1,000 | <0.0188 | <0.0188 | <0.0177 | <0.0170 |
| Aroclor 1254 | 1,000 | 1,000 | <0.0188 | <0.0188 | <0.0177 | <0.0170 |
| Aroclor 1260 | 1,000 | 1,000 | <0.0188 | <0.0188 | <0.0177 | <0.0170 |

[1] Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
[2] Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
[3] Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of regulatory standard
NS = No Standard

**Table 5**

**Metals in Soil (mg/kg-dry)**
**EPA Method 6010**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | RRSCO [2] | CSCO [3] | SB-1 (0-2)<br>3/12/15 | SB-2 (0-2)<br>3/4/15 | SB-2 (8-10)<br>3/4/15 | SB-2 (12-14)<br>3/4/15 | SB-3 (0-2)<br>3/3/15 | SB-3 (8-10)<br>3/3/15 |
|---|---|---|---|---|---|---|---|---|
| Aluminum | NS | NS | **6,560** | **7,980** | **10,600** | **9,700** | **4,920** | **10,800** |
| Antimony | NS | NS | **1.65** | **1.130** | <0.596 | <0.633 | **1.51** | <0.576 |
| Arsenic | 16 | 16 | **4.52** | **8.91** | **2.28** | **1.75** | **6.88** | **7.61** |
| Barium | 400 | 400 | **148** | **133** | **44.2** | **71.0** | **133** | **136** |
| Beryllium | 72 | 590 | <0.111 | <0.126 | <0.119 | <0.127 | <0.116 | <0.115 |
| Cadmium | 4.3 | 9.3 | **1.15** | **4.21** | <0.357 | <0.380 | 0.674 | <0.346 |
| Calcium | NS | NS | **4,590** | **3,190** | **847** | **992** | **3,500** | **1,140** |
| Chromium | 180 | 1,500 | **34.5** | **19.1** | **15.1** | **20.3** | **13.6** | **22.6** |
| Cobalt | NS | NS | **6.3** | **6.74** | **5.73** | **9.34** | **5.62** | **6.21** |
| Copper | 270 | 270 | **80.0** | **94.2** | **10.7** | **18.0** | **68.1** | **14.1** |
| Iron | NS | NS | **23,200** | **30,000** | **13,100** | **16,500** | **12,100** | **15,400** |
| Lead | 400 | 1,000 | **341** | **584** | **9.17** | **12.2** | **215** | **9.52** |
| Magnesium | NS | NS | **2,950** | **2,270** | **2,640** | **4,550** | **2,660** | **3,300** |
| Manganese | 2,000 | 10,000 | **310** | **210** | **145** | **505** | **137** | **184** |
| Mercury | 0.81 | 2.8 | **0.419** | **0.294** | <0.0357 | <0.0380 | **0.132** | <0.0346 |
| Nickel | 310 | 310 | **34.8** | **14.8** | **9.81** | **16.2** | **13.9** | **12.1** |
| Potassium | NS | NS | **743** | **816** | **812** | **1,450** | **664** | **693** |
| Selenium | 180 | 1,500 | **2.35** | **1.75** | <1.19 | <1.27 | **1.64** | <1.15 |
| Silver | 180 | 1,500 | <0.554 | <0.630 | <0.596 | <0.633 | <0.578 | <0.576 |
| Sodium | NS | NS | **103** | **215** | **264** | **224** | **146** | **194** |
| Thallium | NS | NS | <1.11 | <1.26 | <1.19 | <1.27 | <1.16 | <1.15 |
| Vanadium | NS | NS | **24.4** | **22.1** | **19.5** | **27.3** | **17.9** | **31.0** |
| Zinc | 10,000 | 10,000 | **444** | **1,650** | **33.1** | **43.1** | **438** | **40.6** |

[1] Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
[2] Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
[3] Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of regulatory standard
NS = No Standard

**Table 5 continued.**

**Metals in Soil (mg/kg-dry)**
**EPA Method 6010**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | RRSCO [2] | CSCO [3] | SB-3 (12-14)<br>3/3/15 | SB-4 (0-2)<br>3/4/15 | SB-4 (8-10)<br>3/4/15 | SB-4 (12-14)<br>3/4/15 | SB-5 (0-2)<br>3/3/15 | SB-5 (8-10)<br>3/3/15 |
|---|---|---|---|---|---|---|---|---|
| Aluminum | NS | NS | **12,900** | **6,040** | **11,100** | **10,300** | **3,250** | **6,140** |
| Antimony | NS | NS | <0.674 | **1.03** | <0.599 | <0.576 | **2.53** | <0.544 |
| Arsenic | 16 | 16 | **10.0** | **5.34** | **6.46** | **2.01** | **6.45** | **3.98** |
| Barium | 400 | 400 | **94.7** | **132** | **44.8** | **60.7** | **144** | **22.8** |
| Beryllium | 72 | 590 | <0.135 | <0.118 | <0.120 | <0.115 | <0.109 | <0.109 |
| Cadmium | 4.3 | 9.3 | <0.404 | **2.91** | <0.360 | <0.346 | **1.40** | <0.327 |
| Calcium | NS | NS | **1,390** | **24,700** | **1,110** | **831** | **20,700** | **246** |
| Chromium | 180 | 1,500 | **27.6** | **13.5** | **18.8** | **22.9** | **11.3** | **11.0** |
| Cobalt | NS | NS | **11.5** | **6.2** | **8.5** | **8.34** | **5.42** | **5.59** |
| Copper | 270 | 270 | **21.8** | **152** | **22.6** | **18.7** | **117** | **8.53** |
| Iron | NS | NS | **24,600** | **6,470** | **19,600** | **13,100** | **9,000** | **11,700** |
| Lead | 400 | 1,000 | **7.52** | **108** | **29.5** | **10** | **208** | **3.81** |
| Magnesium | NS | NS | **5,470** | **12,100** | **2,910** | **4,150** | **11,700** | **1,740** |
| Manganese | 2,000 | 10,000 | **202** | **67.9** | **243** | **238** | **133** | **140** |
| Mercury | 0.81 | 2.8 | <0.0404 | **0.0877** | **0.0704** | <0.0346 | **0.299** | <0.0327 |
| Nickel | 310 | 310 | **21.5** | **17.4** | **14.7** | **15.1** | **14.9** | **9.74** |
| Potassium | NS | NS | **2,800** | **648** | **947** | **932** | **526** | **656** |
| Selenium | 180 | 1,500 | <1.35 | <1.18 | <1.20 | <1.15 | <1.09 | <1.09 |
| Silver | 180 | 1,500 | <0.674 | <0.592 | <0.599 | <0.576 | <0.547 | <0.544 |
| Sodium | NS | NS | **286** | **281** | **44.2** | **85.4** | **136** | **74** |
| Thallium | NS | NS | <1.35 | <1.18 | <1.20 | <1.15 | <1.09 | <1.09 |
| Vanadium | NS | NS | **35.8** | **22.1** | **27.9** | **22.1** | **17.3** | **16.7** |
| Zinc | 10,000 | 10,000 | **53.1** | **199** | **138** | **33.2** | **158** | **29.7** |

[1] Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
[2] Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
[3] Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of regulatory standard
NS = No Standard

**Table 5 continued.**

**Metals in Soil (mg/kg-dry)**
**EPA Method 6010**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | RRSCO [2] | CSCO [3] | SB-5 (12-14)<br>3/3/15 | SB-6 (0-2)<br>3/3/15 | SB-6 (8-10)<br>3/3/15 | SB-6 (12-14)<br>3/3/15 | SB-7 (0-2)<br>3/15/15 | SB-7 (8-10)<br>3/12/15 |
|---|---|---|---|---|---|---|---|---|
| Aluminum | NS | NS | **6,980** | **8,180** | **6,100** | **4,680** | **10,400** | **4,830** |
| Antimony | NS | NS | <0.547 | **2.23** | <0.583 | <0.542 | <0.544 | <0.512 |
| Arsenic | 16 | 16 | **2.51** | **9.54** | **1.58** | **12.5** | **3.53** | **1.03** |
| Barium | 400 | 400 | **51.8** | **149** | **20.5** | **26.5** | **69.5** | **24.4** |
| Beryllium | 72 | 590 | <0.109 | <0.114 | <0.117 | <0.108 | <0.109 | <1.02 |
| Cadmium | 4.3 | 9.3 | <0.328 | <0.341 | <0.350 | <0.325 | <0.326 | <0.307 |
| Calcium | NS | NS | **854** | **5,010** | **940** | **671** | **3,270** | **504** |
| Chromium | 180 | 1,500 | **18.8** | **19.0** | **15.3** | **8.29** | **20** | **12.6** |
| Cobalt | NS | NS | **5.87** | **6.77** | **5.73** | **4.26** | **8.49** | **4.43** |
| Copper | 270 | 270 | **19.9** | **232** | **17.5** | **10.0** | **38.5** | **8.96** |
| Iron | NS | NS | **12,000** | **16,600** | **13,400** | **7,950** | **2,800** | **10,500** |
| Lead | 400 | 1,000 | **7.94** | **1,040** | **5.42** | **6.50** | **237** | **3.03** |
| Magnesium | NS | NS | **2,650** | **3,370** | **2,280** | **2,170** | **4,200** | **1,710** |
| Manganese | 2,000 | 10,000 | **195** | **228** | **223** | **115** | **429** | **181** |
| Mercury | 0.81 | 2.8 | <0.0328 | **1.42** | <0.0350 | <0.0325 | **0.0573** | <0.0307 |
| Nickel | 310 | 310 | **14.1** | **16.6** | **15.4** | **9.59** | **19.8** | **9.6** |
| Potassium | NS | NS | **853** | **612** | **702** | **694** | **1,610** | **672** |
| Selenium | 180 | 1,500 | <1.09 | **1.5** | <1.17 | <1.08 | **4.31** | **1.24** |
| Silver | 180 | 1,500 | <0.547 | <0.568 | <0.583 | <0.542 | <0.544 | <0.512 |
| Sodium | NS | NS | **85.1** | **61.5** | **39.9** | **35.8** | **301** | **46** |
| Thallium | NS | NS | <1.09 | <1.14 | <1.17 | <1.08 | <1.09 | <1.02 |
| Vanadium | NS | NS | **23.9** | **20.0** | **25.4** | **12.0** | **28.4** | **15.2** |
| Zinc | 10,000 | 10,000 | **25.2** | **261** | **28.2** | **24.8** | **162** | **25.9** |

[1] Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
[2] Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
[3] Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of regulatory standard
NS = No Standard

**Table 5 continued.**

**Metals in Soil (mg/kg-dry)**
**EPA Method 6010**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | RRSCO [2] | CSCO [3] | SB-7 (12-14)<br>3/12/15 | SB-8 (0-2)<br>3/12/15 | SB-8 (8-10)<br>3/12/15 | SB-8 (12-14)<br>3/12/15 |
|---|---|---|---|---|---|---|
| Aluminum | NS | NS | **4,750** | **8,330** | **6,820** | **4,260** |
| Antimony | NS | NS | <0.566 | **1.240** | **<0.532** | <0.511 |
| Arsenic | 16 | 16 | <1.13 | **8.41** | **1.83** | **<1.02** |
| Barium | 400 | 400 | **30.4** | **426.0** | **29.2** | **27.3** |
| Beryllium | 72 | 590 | <0.113 | <0.113 | <0.106 | <0.102 |
| Cadmium | 4.3 | 9.3 | <0.339 | **5190** | <0.319 | <0.307 |
| Calcium | NS | NS | **873** | **5,190** | **1,470** | **775** |
| Chromium | 180 | 1,500 | **13.2** | **25.6** | **10.9** | **11.3** |
| Cobalt | NS | NS | **4.7** | **10.6** | **7.5** | **4.53** |
| Copper | 270 | 270 | **9.1** | **205.0** | **15.2** | **8.0** |
| Iron | NS | NS | **10,500** | **20,400** | **13,000** | **8,270** |
| Lead | 400 | 1,000 | **3.39** | **482** | **4.61** | **3** |
| Magnesium | NS | NS | **2,170** | **3,670** | **3,070** | **1,980** |
| Manganese | 2,000 | 10,000 | **320** | **405** | **300** | **439** |
| Mercury | 0.81 | 2.8 | <0.0339 | **0.314** | <0.0319 | **<0.0307** |
| Nickel | 310 | 310 | **11.8** | **26.1** | **14.4** | **9.2** |
| Potassium | NS | NS | **1,120** | **1,420** | **979** | **472** |
| Selenium | 180 | 1,500 | **1.23** | **3.09** | **1.51** | **<1.02** |
| Silver | 180 | 1,500 | <0.566 | <0.565 | <0.532 | <0.511 |
| Sodium | NS | NS | **55** | **204** | **46** | **<10.2** |
| Thallium | NS | NS | <1.13 | <1.13 | <1.06 | <1.02 |
| Vanadium | NS | NS | **15.1** | **29.2** | **18.9** | **11.6** |
| Zinc | 10,000 | 10,000 | **19.9** | **812** | **47.5** | **18.1** |

[1] Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
[2] Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
[3] Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of regulatory standard
NS = No Standard

**Table 5**

**Volatile Organic Compounds in Groundwater (ug/l)**
**EPA Method 8260**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | Standard [1] | TW-2<br>3/4/15 | TW-3<br>3/12/15 |
|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 5 | <10 | <5 |
| 1,1,1-Trichloroethane | 5 | <10 | <5 |
| 1,1,2,2-Tetrachloroethane | 0.2 | <10 | <5 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | NS | <10 | <5 |
| 1,1,2-Trichloroethane | 1 | <10 | <5 |
| 1,1-Dichloroethane | 5 | <10 | <5 |
| 1,1-Dichloroethene | 0.07 | <10 | <5 |
| 1,2,4-Trichlorobenzene | 5 | <10 | <5 |
| 1,2,4-Trimethylbenzene | 5 | **1,100** | **1,400** |
| 1,2-Dibromo-3-chloropropane | 0.04 | <40 | <40 |
| 1,2-Dibromoethane | NS | <10 | <5 |
| 1,2-Dichlorobenzene | 2 | <10 | <5 |
| 1,2-Dichloroethane | 0.6 | <10 | <5 |
| 1,2-Dichloropropane | 1 | <10 | <5 |
| 1,3,5-Trimethylbenzene | 5 | **340** | **440** |
| 1,3-Dichlorobenzene | 3 | <10 | <5 |
| 1,4-Dichlorobenzene | 3 | <10 | <5 |
| 1,4-Dioxane | NS | <2,000 | <1,000 |
| Cyclohexane | NS | **390** | **280** |
| 2-Butanone | 50 | <40 | <20 |
| 2-Hexanone | 50 | <10 | <5 |
| 4-Methyl-2-pentanone | NS | <10 | <5 |
| Acetone | 50 | **250** | <25 |
| Acrolein | NS | <10 | <5 |
| Acrylonitrile | 5 | <10 | <5 |
| Benzene | 0.7 | **460** | **460** |
| Bromodichloromethane | 50 | <10 | <5 |
| Bromoform | 50 | <10 | <5 |
| Bromomethane | 5 | <10 | <5 |
| Carbon disulfide | 60 | <10 | <5 |
| Carbon tetrachloride | 5 | <10 | <5 |
| Chlorobenzene | 5 | <10 | <5 |
| Chloroethane | 5 | <10 | <5 |
| Chloroform | 7 | **16** | <5.0 |
| Chloromethane | NS | <10 | <5 |
| cis-1,2-Dichloroethene | 5 | <10 | <5 |
| cis-1,3-Dichloropropene | 0.4 | <10 | <5 |
| Dibromochloromethane | 50 | <10 | <5 |
| Dibromomethane | 5 | <10 | <5 |
| Dichlorodifluoromethane | 5 | <10 | <5 |
| Ethylbenzene | 5 | **1,300** | **2,000** |
| Methylcyclohexane | NS | **180** | **200** |
| Hexachlorobutadiene | 0.5 | <10 | <5 |
| Isopropylbenzene | 5 | **95** | **110** |
| Methyl Acetate | NS | <10 | <5 |
| Methyl tert-butyl ether | 10 | <10 | <5 |
| Methylene chloride | 5 | **720** | <25 |
| n-Butylbenzene | 5 | <10 | <5 |
| n-Propylbenzene | 5 | **160** | **220** |
| o-Xylene | 5 | **1,100** | **500** |
| 1,2,3-Trichlorobenzene | 5 | <10 | <5 |
| p- & m-Xylenes | 5 | **4,000** | **4,600** |
| p-Isopropyltoluene | 5 | <10 | **24** |
| sec-Butylbenzene | 5 | **12** | **12** |
| Styrene | 50 | <10 | <5 |
| tert-Butyl alcohol (TBA) | NS | <40 | **3,100** |
| tert-Butylbenzene | 5 | <10 | <5 |
| Tetrachloroethene | 5 | <10 | <5 |
| Toluene | 5 | **780** | **120** |
| trans-1,2-Dichloroethene | 5 | <10 | <5 |
| trans-1,3-Dichloropropene | NS | <10 | <5 |
| Trichloroethene | 5 | <10 | <5 |
| Trichlorofluoromethane | 5 | <10 | <5 |
| Vinyl chloride | 2 | <10 | <5 |
| Xylene (total) | 15 | **5,100** | **5,100** |

[1] NYS DEC TOGS 1.1.1, June, 1998
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of regulatory guidance
NS = No Standard

**Table 6**

**Semi Volatile Organic Compounds in Groundwater (ug/l)**
**EPA Method 8270**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | Standard [1] | TW-2<br>3/4/15 | TW-3<br>3/12/15 |
|---|---|---|---|
| Acenaphthene | 20 | **14.7** | <5.13 |
| Acenaphthylene | NS | <5.13 | <5.13 |
| Acetophenone | NS | <5.13 | <5.13 |
| Anthracene | 50 | **8.64** | <5.13 |
| Atrazine | 7.5 | <5.13 | <5.13 |
| Benzaldehyde | NS | <5.13 | <5.13 |
| Benzidine | 5 | <20.5 | <20.5 |
| Benzo(a)anthracene | NS | <5.13 | <5.13 |
| Benzo(a)pyrene | NS | <5.13 | <5.13 |
| Benzo(b)fluoranthene | 0.002 | <5.13 | <5.13 |
| Benzo(g,h,i)perylene | NS | <5.13 | <5.13 |
| Benzoic acid | NS | <51.3 | <51.3 |
| Benzo(k)fluoranthene | 0.002 | <5.13 | <5.13 |
| Benzyl alcohol | NS | <5.13 | <5.13 |
| Benzyl butyl phthalate | 50 | <5.13 | <5.13 |
| 1,1´-Biphenyl | 5 | **27.4** | <5.13 |
| 4-Bromophenyl-phenylether | NS | <5.13 | <5.13 |
| Caprolactam | NS | <5.13 | <5.13 |
| Carbazole | NS | **18.0** | **8.1** |
| Bis(2-chloroethoxy)methane | 5 | <5.13 | <5.13 |
| Bis(2-chloroethyl)ether | 1 | <5.13 | <5.13 |
| Bis(2-chloroisopropyl)ether | 5 | <5.13 | <5.13 |
| 2-Chloronaphthalene | 10 | <5.13 | <5.13 |
| 2-Chlorophenol | NS | <5.13 | <5.13 |
| 4-Chlorophenyl phenyl ether | NS | <5.13 | <5.13 |
| Chrysene | 0.002 | <5.13 | <5.13 |
| Dibenzo(a,h)anthracene | NS | <5.13 | <5.13 |
| Dibenzofuran | NS | <5.13 | <5.13 |
| Di-n-butyl phthalate | 50 | <5.13 | <5.13 |
| 1,4-Dichlorobenzene | 3 | <5.13 | <5.13 |
| 1,2-Dichlorobenzene | 3 | <5.13 | <5.13 |
| 1,3-Dichlorobenzene | 3 | <5.13 | <5.13 |
| 3,3´-Dichlorobenzidine | 5 | <5.13 | <5.13 |
| 2,4-Dichlorophenol | 0.3 | <5.13 | <5.13 |
| Diethyl phthalate | 50 | <5.13 | <5.13 |
| 2,4-Dimethylphenol | 50 | <5.13 | <5.13 |
| Dimethyl phthalate | 50 | <5.13 | <5.13 |
| 4,6-Dinitro-2-methylphenol | NS | <5.13 | <5.13 |
| 2,4-Dinitrophenol | 10 | <5.13 | <5.13 |
| 2,4-Dinitrotoluene | 5 | <5.13 | <5.13 |
| 2,6-Dinitrotoluene | 0.07 | <5.13 | <5.13 |
| Di-n-octyl phthalate | 50 | <5.13 | <5.13 |
| 1,2-Diphenyhydrazine | NS | <5.13 | <5.13 |
| Bis(2-ethylhexyl)phthalate | 5 | <5.13 | <5.13 |
| Fluoranthene | 50 | <5.13 | <5.13 |
| Fluorene | 50 | **27.9** | <5.13 |
| Hexachlorobenzene | 0.04 | <5.13 | <5.13 |
| Hexachlorobutadiene | 0.5 | <5.13 | <5.13 |
| Hexachlorocyclopentadiene | 5 | <5.13 | <5.13 |
| Hexachloroethane | 5 | <5.13 | <5.13 |
| Indeno(1,2,3-c,d)pyrene | 0.002 | <5.13 | <5.13 |
| Isophorone | 50 | <5.13 | <5.13 |
| 2-Methylnaphthalene | 42 | **501** | **58.7** |
| 2-Methylphenol | NS | <5.13 | <5.13 |
| 3- & 4-Methylphenol | NS | <5.13 | <5.13 |
| Naphthalene | 10 | **453** | **195** |
| 3-Nitroaniline | 5 | <5.13 | <5.13 |
| 4-Nitroaniline | 5 | <5.13 | <5.13 |
| 2-Nitroaniline | 5 | <5.13 | <5.13 |
| Nitrobenzene | 0.4 | <5.13 | <5.13 |
| 4-Nitrophenol | NS | <5.13 | <5.13 |
| 2-Nitrophenol | NS | <5.13 | <5.13 |
| N-Nitrosodi-n-propylamine | NS | <5.13 | <5.13 |
| N-Nitrosodimethylamine | NS | <5.13 | <5.13 |
| N-Nitrosodiphenylamine | 50 | <5.13 | <5.13 |
| Pentachlorophenol | NS | <5.13 | <5.13 |
| Phenanthrene | 50 | **55.5** | <5.13 |
| Phenol | NS | <5.13 | <5.13 |
| Pyrene | 50 | <5.13 | <5.13 |
| 1,2,4,5-Tetrachlorobenzene | 5 | <5.13 | <5.13 |
| 2,3,4,6-Tetrachlorophenol | NS | <5.13 | <5.13 |
| 1,2,4-Trichlorobenzene | 50 | <5.13 | <5.13 |
| 2,4,6-Trichlorophenol | NS | <5.13 | <5.13 |
| 2,4,5-Trichlorophenol | NS | <5.13 | <5.13 |

[1] NYS DEC TOGS 1.1.1, June, 1998
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of regulatory guidance
NS = No Standard

**Table 7**

**PCBs and Pesticides in Groundwater (ug/l)**
**EPA Method 8081/8082**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| **Sample ID**<br>**Sample Date** | **Standard [1]** | **TW-2**<br>**3/4/15** | **TW-3**<br>**3/12/15** |
|---|---|---|---|
| Aldrin | 0.041 | <0.00410 | <0.00640 |
| alpha-BHC | 0.11 | <0.00410 | <0.00640 |
| beta-BHC | 0.2 | <0.00410 | <0.00640 |
| delta-BHC | 0.3 | <0.00410 | <0.00640 |
| gamma-BHC | 0.06 | <0.00410 | <0.00640 |
| gamma-Chlordane | NS | <0.0103 | <0.0160 |
| alpha-Chlordane | NS | <0.00410 | <0.00640 |
| Chlordane, total | 0.05 | <0.0410 | <0.0640 |
| 4,4´-DDD | 2.9 | <0.00410 | <0.00640 |
| 4,4´-DDE | 2.1 | <0.00410 | <0.00640 |
| 4,4´-DDT | 2.1 | <0.00410 | <0.00640 |
| Dieldrin | 0.044 | <0.00205 | <0.00320 |
| Endosulfan I | 0.9 | <0.00410 | <0.00640 |
| Endosulfan II | 0.9 | <0.00410 | <0.00640 |
| Endosulfan sulfate | 1 | <0.00410 | <0.00640 |
| Endrin | 0.1 | <0.00410 | <0.00640 |
| Endrin aldehyde | NS | <0.0103 | <0.0160 |
| Endrin ketone | NS | <0.0103 | <0.0160 |
| Heptachlor | 0.1 | <0.00410 | <0.00640 |
| Heptachlor epoxide | 0.02 | <0.00410 | <0.00640 |
| Methoxychlor | NS | <0.00410 | <0.00640 |
| Toxaphene | 0.06 | <0.103 | <0.160 |
| Aroclor 1016 | 10 | <0.0513 | <0.0800 |
| Aroclor 1221 | 10 | <0.0513 | <0.0800 |
| Aroclor 1232 | 10 | <0.0513 | <0.0800 |
| Aroclor 1242 | 10 | <0.0513 | <0.0800 |
| Aroclor 1248 | 10 | <0.0513 | <0.0800 |
| Aroclor 1254 | 10 | <0.0513 | <0.0800 |
| Aroclor 1260 | 10 | <0.0513 | **0.269** |

[1] NYS DEC TOGS 1.1.1, June, 1998
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of regulatory guidance
NA = Not Analyzed
NS = No Standard

**Table 8**

**Total and Dissolved Metals in Groundwater (ug/l)**
**EPA Method 6010 and 7471**
**23-01 41st Avenue**
**Long Island City, NY**

**ACT Project No.: 8092-LINY**

| Sample ID<br>Sample Date | Standard [1] | TW-2<br>3/4/15 | TW-3<br>3/12/15 |
|---|---|---|---|
| **Total** | | | |
| Aluminum | 100 | **11,700** | **59,200** |
| Antimony | 3 | <5 | <5 |
| Arsenic | 50 | **23** | **44** |
| Barium | 1,000 | **660** | **1,700** |
| Beryllium | 3 | <1 | <1 |
| Cadmium | 5 | <3 | **3** |
| Calcium | NS | **95,400** | **214,000** |
| Chromium | 50 | **39** | **153** |
| Cobalt | 5 | **16** | **107** |
| Copper | 200 | **46** | **317** |
| Iron | 300 | **69,100** | **141,000** |
| Lead | 50 | **65** | **454** |
| Magnesium | 35,000 | **15,800** | **83,100** |
| Manganese | 300 | **1,560** | **27,700** |
| Mercury | 0.7 | <0.2 | <0.2 |
| Nickel | 100 | **30** | **203** |
| Potassium | NS | **30,300** | **13,200** |
| Selenium | 10 | <10 | **28** |
| Silver | NS | <5 | <5 |
| Sodium | 20,000 | **201,000** | **248,000** |
| Thallium | 8 | <5 | <5 |
| Vanadium | 14 | **35** | **211** |
| Zinc | 66 | **162** | **963** |
| **Dissolved** | | | |
| Aluminum | 100 | <10 | **38** |
| Antimony | 3 | <5 | <5 |
| Arsenic | 50 | **15** | **25** |
| Barium | 1,000 | **513** | **179** |
| Beryllium | 3 | <1 | <1 |
| Cadmium | 5 | <3 | <3 |
| Calcium | NS | **90,900** | **121,000** |
| Chromium | 50 | <5 | <5 |
| Cobalt | 5 | <5 | <5 |
| Copper | 200 | <3 | <3 |
| Iron | 300 | **44,200** | **77,300** |
| Lead | 50 | **15** | **8** |
| Magnesium | 35,000 | **10,300** | **27,700** |
| Manganese | 300 | **915** | **16,500** |
| Mercury | 0.7 | <0.02 | <0.02 |
| Nickel | 100 | **6** | **7** |
| Potassium | NS | **27,300** | **3,650** |
| Selenium | 10 | <10 | **12** |
| Silver | NS | <5 | <5 |
| Sodium | 20,000 | **290,000** | **236,000** |
| Thallium | 8 | <5 | <5 |
| Vanadium | 14 | <10 | <10 |
| Zinc | 66 | **22** | **23** |

[1] NYS DEC TOGS 1.1.1, June, 1998
Bolded values signify detection above method detection limit
Highlighted values signify exceedance of regulatory guidance in dissolved samples
NS = No Standard

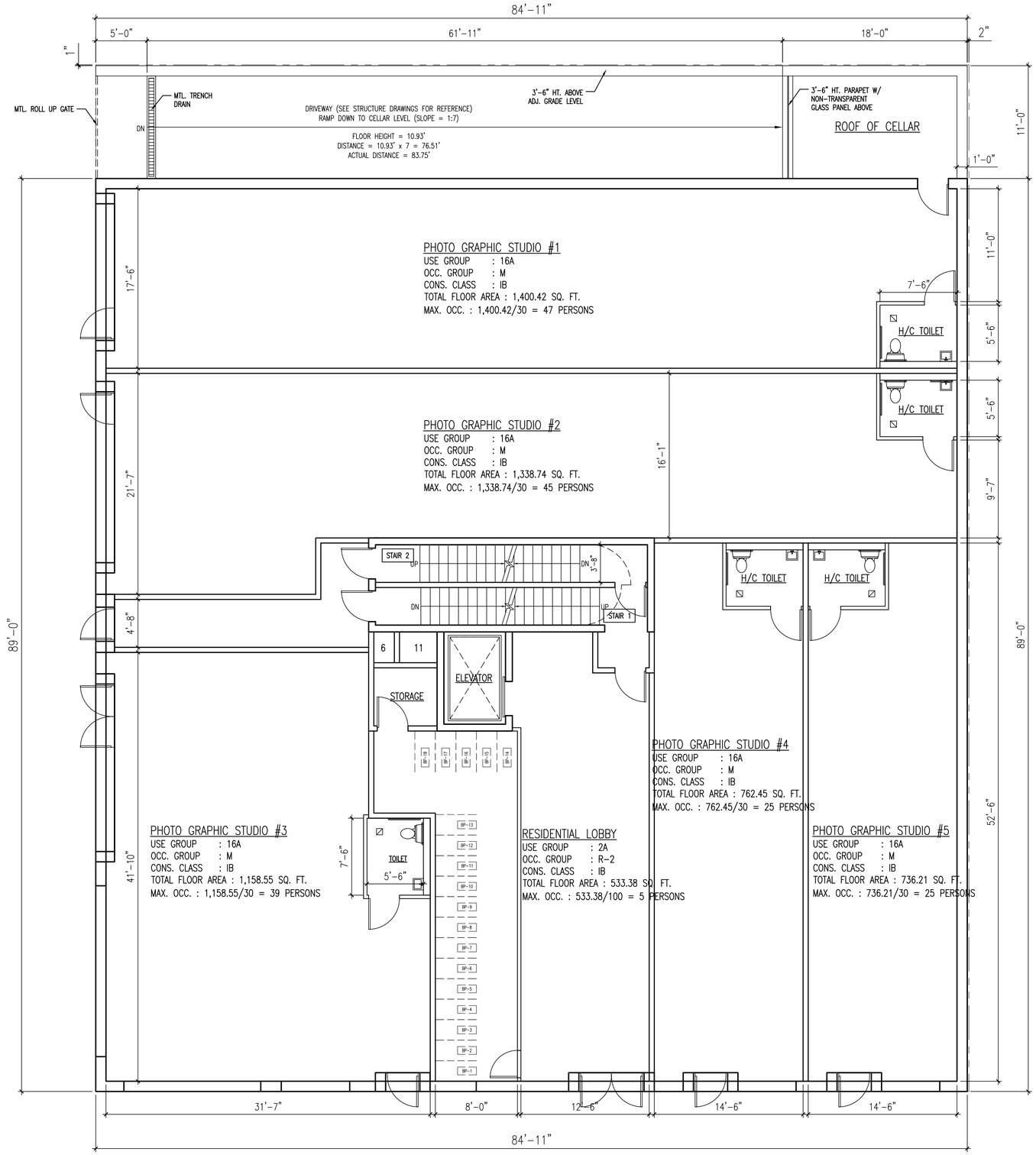
**Table 9**

**Volatile Organic Compounds in Soil Vapor (ug/m3)**
**EPA Method TO-15**
**87-03 Grand Avenue**
**Elmhurst, NY**

**ACT Project No.: 8143-ELNY**

| Sample ID<br>Sample Date | NYSDOH Indoor Air Guideline [1] | SV-1<br>3/12/15 | SV-2<br>3/12/15 | SV-3<br>3/12/15 | SV-4<br>3/12/15 |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | NA | <0.71 | <670 | <600 | <750 |
| 1,1,1-Trichloroethane | 30 [4] | <1.1 | <1,100 | <950 | <1,200 |
| 1,1,2,2-Tetrachloroethane | NA | <1.4 | <1,300 | <1,200 | <1,500 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | NA | <1.6 | <1,500 | <1,300 | <1,700 |
| 1,1,2-Trichloroethane | NA | <1.1 | <1,100 | <950 | <1,200 |
| 1,1-Dichloroethane | NA | <0.83 | <780 | <700 | <890 |
| 1,1-Dichloroethylene | NA | <0.82 | <770 | <690 | <870 |
| 1,2,4-Trichlorobenzene | NA | <1.5 | <1,400 | <1,300 | <1,600 |
| 1,2,4-Trimethylbenzene | NA | **5.5** | <950 | <850 | <1,100 |
| 1,2-Dibromoethane | NA | <1.6 | <1,500 | <1,300 | <1,700 |
| 1,2-Dichlorobenzene | NA | <1.2 | <1,200 | <850 | <1,300 |
| 1,2-Dichloroethane | NA | <0.83 | <780 | <1,300 | <890 |
| 1,2-Dichloropropane | NA | <0.95 | <900 | <1,000 | <1,000 |
| 1,2-Dichlorotetrafluoroethane | NA | <1.4 | <1,400 | <700 | <1,500 |
| 1,3,5-Trimethylbenzene | NA | **1.6** | <950 | <850 | <1,100 |
| 1,3-Butadiene | NA | **15** | <840 | <750 | <950 |
| 1,3-Dichlorobenzene | NA | <1.2 | <1,200 | <1,000 | <1,300 |
| 1,3-Dichloropropene | NA | <0.95 | <900 | <800 | <1,000 |
| 1,4-Dichlorobenzene | NA | <1.2 | <1,200 | <1,000 | <1,300 |
| 1,4-Dioxane | NA | <0.74 | <700 | <630 | <790 |
| 2-Butanone | NA | **13** | <570 | <510 | <650 |
| 2-Hexanone | NA | <1.7 | <1,600 | <1,400 | <1,800 |
| 3-Chloropropene | NA | <0.64 | <610 | <540 | <690 |
| 4-Methyl-2-pentanone | NA | <0.84 | <790 | <710 | <900 |
| Acetone | NA | **210** | **11,000** | **15,000** | **1,300** |
| Acrylonitrile | NA | <0.45 | <420 | <380 | <480 |
| Benzene | NA | **14** | **40,000** | **37,000** | **5,100** |
| Benzyl Chloride | NA | <1.1 | <1,000 | <900 | <1,100 |
| Bromodichloromethane | NA | <1.3 | <1,200 | <1,100 | <1,400 |
| Bromoform | NA | <2.1 | <2,000 | <1,800 | <2,300 |
| Bromomethane | NA | <0.80 | <750 | <670 | <850 |
| Carbon disulfide | NA | **11** | <600 | <540 | <680 |
| Carbon tetrachloride | 5 [3] | **0.52** | <300 | <270 | <640 |
| Chlorobenzene | NA | <0.95 | <890 | <800 | <1,000 |
| Chloroethane | NA | <0.54 | <510 | <460 | <580 |
| Chloroform | NA | <1.0 | <950 | <850 | <1,100 |
| Chloromethane | NA | **0.64** | <400 | <360 | <450 |
| cis-1,2-Dichloroethylene | NA | <0.82 | <770 | <690 | <870 |
| cis-1,3-Dichloropropylene | NA | <0.93 | <880 | <790 | <990 |
| Cyclohexane | NA | **6.8** | **210,000** | **20,000** | **28,000** |
| Dibromochloromethane | NA | <1.7 | <1,600 | <1,400 | <1,800 |
| Dichlorodifluoromethane | NA | **2.0** | <960 | <860 | <1,100 |
| Ethyl acetate | NA | <1.5 | <1,400 | <1,300 | <1,600 |
| Ethylbenzene | NA | **9.5** | **1,000** | **1,400** | <950 |
| Hexachlorobutadiene | NA | <2.2 | <2,100 | <1,900 | <2,300 |
| Isopropanol | NA | **2.1** | <950 | <850 | <1,100 |
| Methyl Methacrylate | NA | <0.84 | <790 | <710 | <900 |
| Methyl tert-butyl ether | NA | <0.74 | <700 | <630 | <790 |
| Methylene chloride | NA | **29** | <1,300 | <1,200 | <1,500 |
| n-Heptane | NA | **30** | **130,000** | **160,000** | **22,000** |
| n-Hexane | NA | **45** | **600,000** | **770,000** | **110,000** |
| Xylenes (o) | NA | **9.7** | <840 | <750 | <950 |
| Xylenes (m&p) | NA | **32** | <1,700 | 2,800 | <1,900 |
| p-Ethyltoluene | NA | **6.9** | <950 | <850 | <1,100 |
| Propylene | NA | <0.35 | <330 | <300 | <380 |
| Styrene | NA | <0.88 | <830 | <740 | <930 |
| Tetrachloroethylene | 30 [4] | **3.3** | <330 | <290 | <370 |
| Tetrahydrofuran | NA | <0.61 | <570 | <510 | <650 |
| Toluene | NA | **49** | **4,100** | **920** | <830 |
| trans-1,2-Dichloroethylene | NA | <0.82 | <770 | <690 | <870 |
| trans-1,3-Dichloropropylene | NA | <0.93 | <880 | <790 | <990 |
| Trichloroethylene | 5 [3] | <0.28 | <260 | <230 | <290 |
| Trichlorofluoromethane | NA | **1.3** | <1,100 | <980 | <1,200 |
| Vinyl acetate | NA | <0.72 | <680 | <610 | <770 |
| Vinyl bromide | NA | <0.90 | <850 | <760 | <960 |
| Vinyl chloride | NA | <0.13 | <120 | <110 | <140 |

[1] Table 3.1, NYSDOH "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York" (October 2006)
[2] Draft Subsurface Vapor Intrusion Guidance, USEPA (November, 2002)
[3] Matrix 1, NYSDOH "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York" (October 2006)
[4] Matrix 2, NYSDOH "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York" (October 2006)
Bolded values signify detection above method detection limit
Highlighted values signify detection above guidance value
NA = Guidance Value Not Available




## 1ST FLOOR PLAN

SCALE: 3/16" = 1'-0"

NOTE:
1. ALL THE STRUCTURE COL. TO BE 3-HR. FIRE RATED ENCL.
2. ALL THE STAIR HANDRAIL TO BE 36" MTL.
3. SEE STRUCTURE DRAWINGS FOR DETAILS.
4. SEE STRUCTURE DRAWINGS FOR COLUMN SCHEDULE.
5. ELEVATOR SYSTEM, ELEVATOR PIT AND ELEVATOR MACHINE ROOM COORDINATE WITH MANUFACTURER.

### LEGENDS & ABBR.

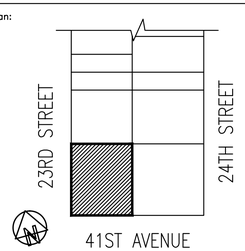
- CONCRETE FOUNDATION WALL
- MASONRY EXTERIOR WALL
- CMU MASONRY WALL
- 2-HOUR FIRE RATED PARTITION
- 1-HOUR FIRE RATED PARTITION
- INTERIOR NON-RATED PARTITION
- BRICK FINISH
- ROOF SHINGLE FINISH
- BRICK FINISH
- GRASS / PLANTER
- SDE — DOOR PANEL OPENING
- WINDOW PANEL OPENING
- SC — SMOKE DETECTOR/CARBON MONOXIDE
- T — PROGRAMMABLE THERMOSTAT
- BATHROOM EXHAUST FAN
- XX XX FL XX — ELEVATION ABOVE DATUM (NAVD 1988)
- 2 — REVISION DESIGNATION
- 1 — WALL TYPE, SEE A-302
- BATT INSULATION
- A-1 A-201 — ELEVATION TAG
- A-1 A-201 — SECTION TAG


AMERILAND BROOK LLC
Architecture, Zoning & Building Code, Interior Design

Address : 141-52 33rd Ave. Suite 2C, Queens, NY 11354
Phone : 646-201-6853
Email : xh8310@gmail.com


| No.: | Date: | Revision: |
|---|---|---|

Key Plan:




Project Info.:

NEW 6-STORY MIXED USE BUILDING
23-01 41ST AVENUE, L.I.C., NY 11101

Block : 408 Zone Dist. : M1-2/R6A (MIXED USE DIST.)
Lot : 5 Tax Map : 9B

Drawing Title:

1ST FLOOR PLAN

Drawing No.: A-102.00

NOTE: Drawing may be printed at reduced scale

Seal / Stamp:

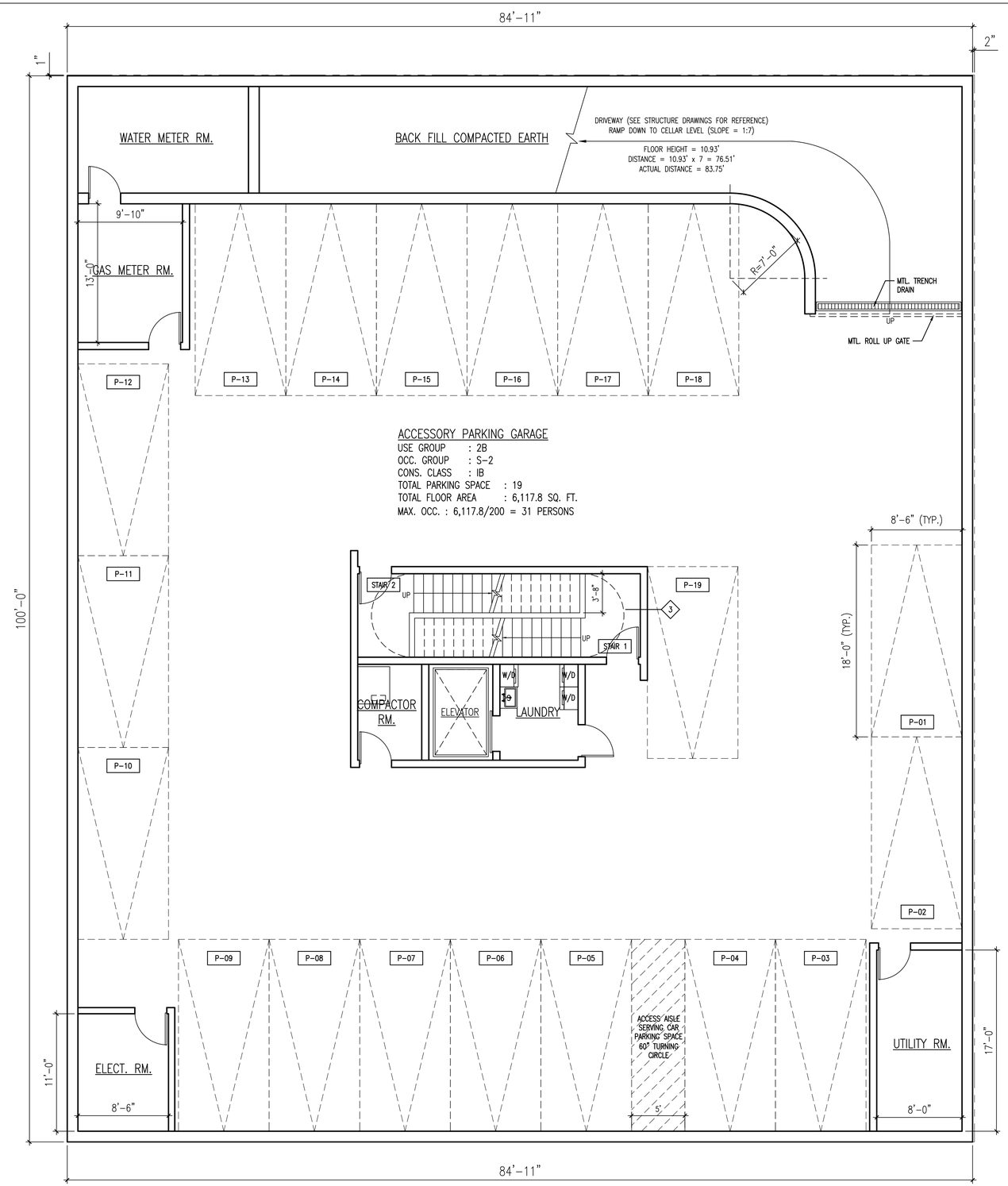
Drawn on: JAN. 1, 2015

Signature:

Drawn by: I. Carson
Checked by: X.H. Zhao

No. of Sheet(s): X of X

Job No. / DOB Sticker:




## CELLAR FLOOR PLAN

SCALE: 3/16" = 1'-0"

NOTE:
1. ALL THE STRUCTURE COL. TO BE 3-HR. FIRE RATED ENCL.
2. ALL THE STAIR HANDRAIL TO BE 36" MTL.
3. SEE STRUCTURE DRAWINGS FOR DETAILS.
4. SEE STRUCTURE DRAWINGS FOR COLUMN SCHEDULE.
5. ELEVATOR SYSTEM, ELEVATOR PIT AND ELEVATOR MACHINE ROOM COORDINATE WITH MANUFACTURER.

### LEGENDS & ABBR.

- CONCRETE FOUNDATION WALL
- MASONRY EXTERIOR WALL
- CMU MASONRY WALL
- 2-HOUR FIRE RATED PARTITION
- 1-HOUR FIRE RATED PARTITION
- INTERIOR NON-RATED PARTITION
- BRICK FINISH
- ROOF SHINGLE FINISH
- BRICK FINISH
- GRASS / PLANTER
- DOOR PANEL OPENING
- WINDOW PANEL OPENING
- SC — SMOKE DETECTOR/CARBON MONOXIDE
- T — PROGRAMMABLE THERMOSTAT
- BATHROOM EXHAUST FAN
- XX XX FL XX — ELEVATION ABOVE DATUM (NAVD 1988)
- 2 — REVISION DESIGNATION
- 1 — WALL TYPE, SEE A-302
- BATT INSULATION
- A-1 A-201 — ELEVATION TAG
- A-1 A-201 — SECTION TAG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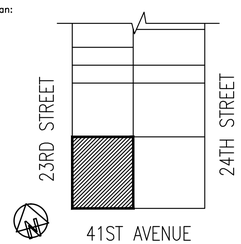
Email : xh8310@gmail.com


| No.: | Date: | Revision: |
|---|---|---|

Key Plan:




Project Info.:

NEW 6-STORY MIXED USE BUILDING
23-01 41ST AVENUE, L.I.C., NY 11101

Block : 408 Zone Dist. : M1-2/R6A (MIXED USE DIST.)
Lot : 5 Tax Map : 9B

Drawing Title:

CELLAR FLOOR PLAN

Drawing No.: A-101.00

NOTE: Drawing may be printed at reduced scale

Seal / Stamp:

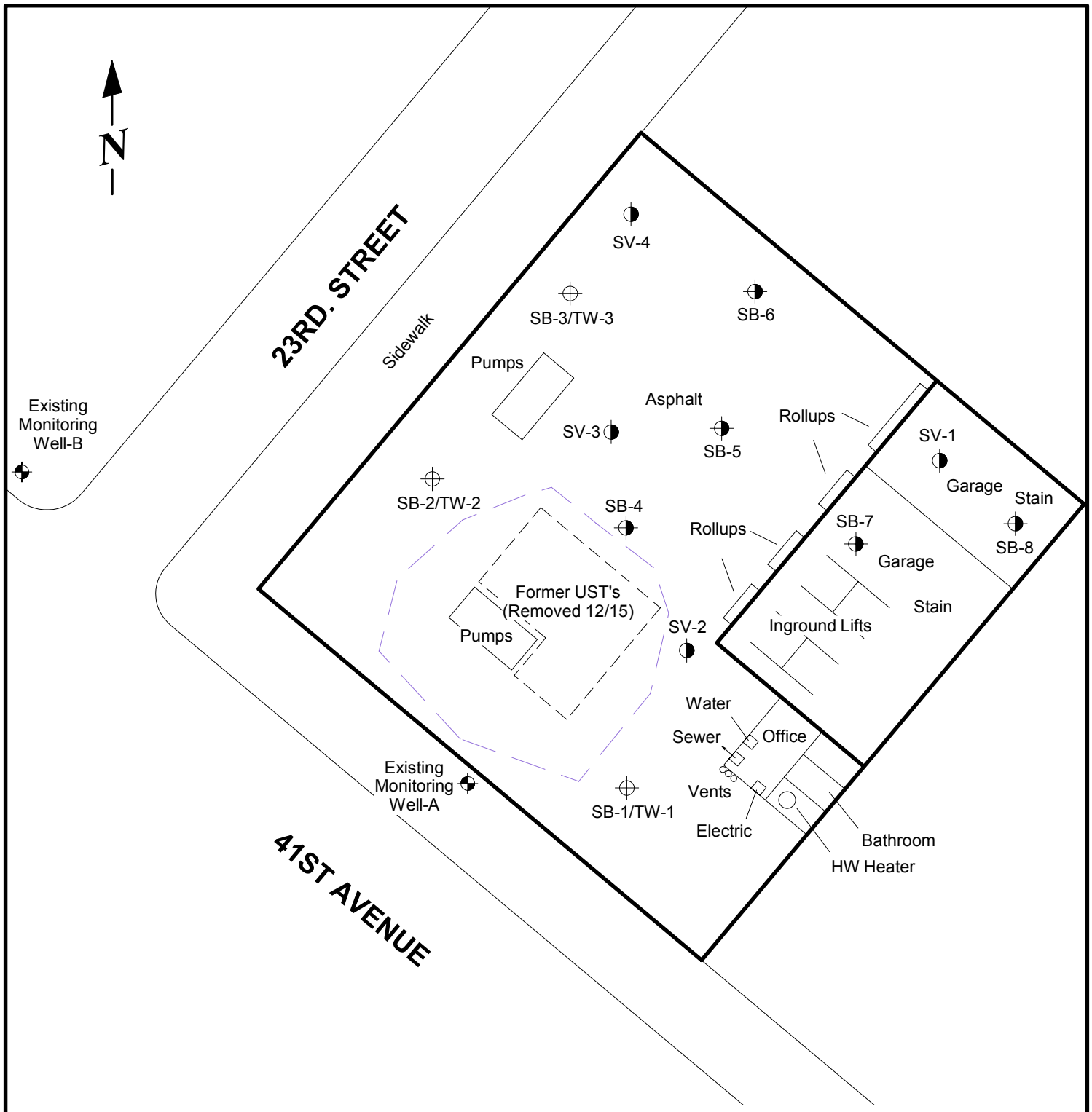
Drawn on: JAN. 1, 2015

Signature:

Drawn by: I. Carson
Checked by: X.H. Zhao

No. of Sheet(s): X of X

Job No. / DOB Sticker:




## Legend

SB-1/TW-1 — Soil Boring/Temporary Well Location

SB-2 — Soil Boring Location

SV-1 — Soil Vapor Sampling Location

Perimeter of excavated area. Tanks removed.

**Sampling Diagram**

Advanced Cleanup Technologies, Inc.
ENVIRONMENTAL CONSULTANTS
110 Main Street, Suite 103, Port Washington, New York 11050
Tel: 516-441-5800 Fax: 516-441-5511

| | |
|---|---|
| Project No.: 8092-LINY | Figure No.: 4 |
| Date: 02/23/2015 | Scale: Not To Scale |

SB-5 (0-2)
SVOC's
Benzo(a)anthracene - above Track 2
Benzo(a)pyrene - above Track 2
Benzo(b)fluoranthene - above Track 2
Indeno(1,2,3-c,d)pyrene - above Track 2

SB-5 (12-14)
VOCs
1,2,4-Trimethylbenzene - above Track 2
1,3,5-Trimethylbenzene - above Track 2
Benzene - above Track 2
Ethylbenzene - above Track 2
Total Xylenes - above Track 2
SVOC's
Napthalene - above Track 2

SB-6 (0-2)
SVOC's
Indeno(1,2,3-c,d)pyrene - above Track 2
Metals
Lead - above Track 2
Mercury - above Track 2

SB-6 (12-14)
VOCs
1,2,4-Trimethylbenzene - above Track 2
1,3,5-Trimethylbenzene - above Track 2
Benzene - above Track 2
Ethylbenzene - above Track 2
Total Xylenes - above Track 2

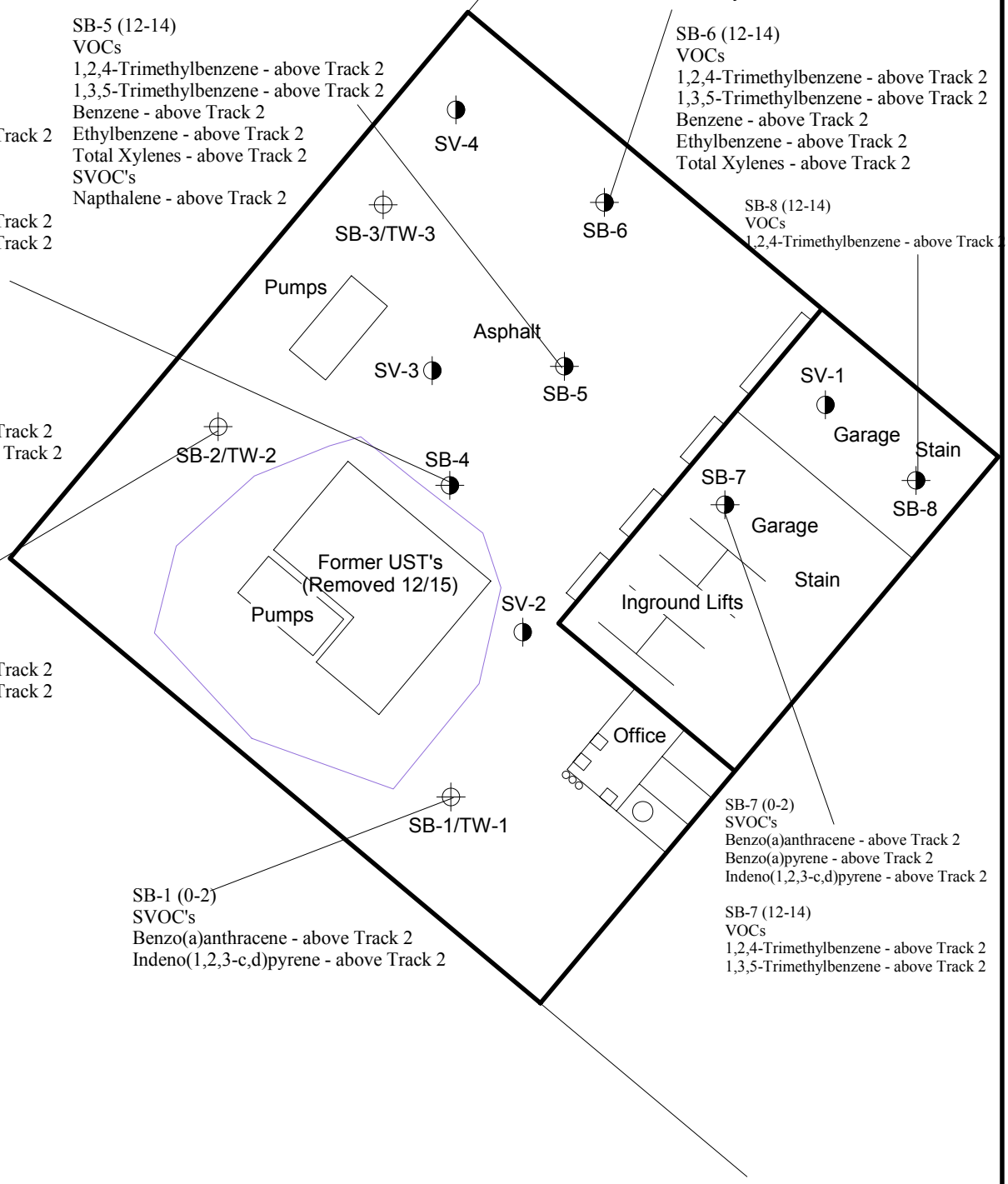
SB-4 (8-10)
VOC's
1,2,4-Trimethylbenzene - above Track 2

SB-4 (12-14)
VOCs
1,2,4-Trimethylbenzene - above Track 2
1,3,5-Trimethylbenzene - above Track 2
Benzene - above Track 2
Ethylbenzene - above Track 2
Total Xylenes - above Track 2

SB-8 (12-14)
VOCs
1,2,4-Trimethylbenzene - above Track 2

SB-2 (0-2)
VOC's
1,2,4-Trimethylbenzene - above Track 2
1,3,5-Trimethylbenzene - aboove Track 2
Benzene - above Track 2
Ethylbenzene - above Track 2
SVOC's
Napthalene - above Track 2
Metals
Lead - above Track 2

SB-2 (12-14)
VOCs
1,2,4-Trimethylbenzene - above Track 2
1,3,5-Trimethylbenzene - above Track 2
Total Xylenes - above Track 2




SB-7 (0-2)
SVOC's
Benzo(a)anthracene - above Track 2
Benzo(a)pyrene - above Track 2
Indeno(1,2,3-c,d)pyrene - above Track 2

SB-7 (12-14)
VOCs
1,2,4-Trimethylbenzene - above Track 2
1,3,5-Trimethylbenzene - above Track 2

SB-1 (0-2)
SVOC's
Benzo(a)anthracene - above Track 2
Indeno(1,2,3-c,d)pyrene - above Track 2

## Legend

SB-1/TW-1 — Soil Boring/Temporary Well Location

SB-2 — Soil Boring Location

SV-1 — Soil Vapor Sampling Location

Perimeter of excavated area. Tanks removed.

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**Soil Exceedance Diagram**

Advanced Cleanup Technologies, Inc.
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| | |
|---|---|
| Project No.:8092-LINY | Figure No.: 5 |
| Date: 02/23/2015 | Scale: Not To Scale |

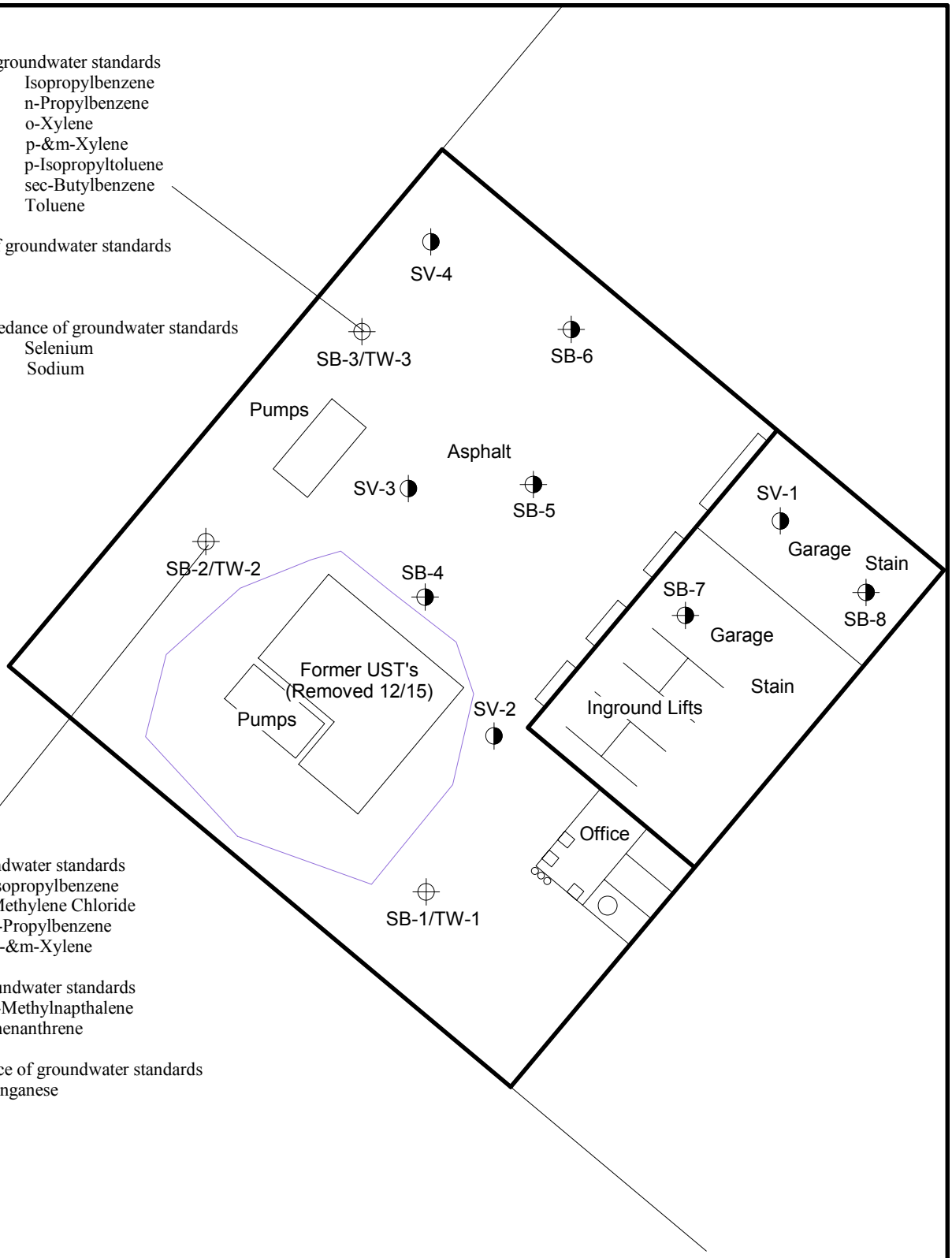
TW-3
VOC's - in exceedance of groundwater standards

| | |
|---|---|
| 1,2,4-Trimethylbenzene | Isopropylbenzene |
| 1,3,5-Trimethylbenzene | n-Propylbenzene |
| Benzene | o-Xylene |
| Ethylbenzene | p-&m-Xylene |
| Methylcyclohexane | p-Isopropyltoluene |
| | sec-Butylbenzene |
| | Toluene |

SVOC's - in exceedance of groundwater standards
2-Methylnapthalene
Napthalene

Dissolved Metals - in exceedance of groundwater standards

| | |
|---|---|
| Iron | Selenium |
| Manganese | Sodium |




TW-2
VOC's - in exceedance of groundwater standards

| | |
|---|---|
| 1,2,4-Trimethylbenzene | Isopropylbenzene |
| 1,3,5-Trimethylbenzene | Methylene Chloride |
| Acetone | n-Propylbenzene |
| o-Xylene | p-&m-Xylene |

SVOC's - in exceedance of groundwater standards

| | |
|---|---|
| 1,1'-Biphenyl | 2-Methylnapthalene |
| Napthalene | Phenanthrene |

Dissolved Metals - in exceedance of groundwater standards

| | |
|---|---|
| Iron | Manganese |
| Sodium | |

## Legend

SB-1/TW-1 — Soil Boring/Temporary Well Location

SB-2 — Soil Boring Location

SV-1 — Soil Vapor Sampling Location

Perimeter of excavated area. Tanks removed.

N

**Groundwater Exceedance Diagram**

Advanced Cleanup Technologies, Inc.
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| | |
|---|---|
| Project No.:8092-LINY | Figure No.: 6 |
| Date: 02/23/2015 | Scale: Not To Scale |